2025

AUS Stock Selector & Prices

Industry 4.0 is underway - allow us to support your implementation.

Robotics & assembly automation

Food & beverage manufacturing

Water processing technology

Energy generation

Packaging automation

Facilities automation

Mining automation

Mobile machine controls

Logistics automation

Free Freight on All Orders Under 20kg!

Deliveries for >20kg are charged based on weight and shipping destination. So take advantage of our flat $9.90 shipping fee when you shop through our eShop. Shop smart, shop eShop!

Acting sustainably is ifm's motto

CHAIRMEN OF THE BOARD AND CO-CEOS: MARTIN BUCK AND MICHAEL MARHOFER

Chairmen of the Board and co-CEOs: Martin Buck and Michael Marhofer

Corporate Policies

Scan to learn more

What will the world look like in the future? We at ifm ask ourselves this question not only when it comes to product development, innovative technologies and new ways of working. Environmental issues also play a leading role in our daily decisions and actions.

"Because we are all responsible for the future which takes social, economic, and ecological aspects into consideration."

We can only fulfill this responsibility when we are aware of the consequences of our actions and in time start looking for solutions and new ways to minimise their impact. For us, this also means responsibly and reliably following long-term goals instead of resting on short-term successes. In the course of this, we would like to recommend our fourth Sustainability report (reporting year 2022) which contains a comprehensive sustainability programme in addition to our strategic approaches and measures.

Acting sustainably is the motto - and in all respects. This is already stated in the corporate philosophy, first written down in 1990:

"*ifm demands and promotes ecologically conscious decisions and conduct.*" ***ifm corporate philosophy***

The group of companies has been following this guiding principle for over 50 years. In doing so, we often go beyond the legal requirements and feel further encouraged in our thinking by the increasing attention to issues such as the protection of biodiversity, energy and mobility, which are emerging, among other things, from a global climate movement and also from pioneering measures of the European Green Deal.

The 3 pillars of sustainability

One thing is certain for us:

"*Efficient, socially balanced and ecologically compatible development is needed, whereby social interaction, economic strength and environmental protection are not contradictory for us.*"
ifm corporate philosophy

At the same time, we are aware that we must contribute more. Only then can we master the global social and ecological challenges. Up until now, we have seen ourselves as a company that operates sustainably in an integrated manner. Now we want to actively advance our sustainability activities and pursue the issues that are essential for us in the coming years. You can find out here what this means in detail for the ifm group.

As a company that operates sustainably, we at ifm set ourselves the goal of harmonising economic, ecological and social aspects and anchoring them more firmly in our organisation.

The guiding principle of corporate sustainability describes a principle of action which is based in a balanced way on the three pillars of sustainability - Economy, Environment (ecology) and Social issues - in all corporate decisions and actions. Issues such as environmental protection, upholding social principles and economic stability are not fundamentally new, but they have become much more important in the past years.

ifm acts according to the principle of economic optimum and against this background strives for balance as well as commitment in all three dimensions.

"Looking to the future, we are also following our guiding principle growing successfully in security."

ifm is committed to help your business succeed!

German quality industrial product, ex-stock AU

Personal service:
Either by phone, email, in person or via an MS Teams online meeting, ifm is always there for you – anywhere, anytime. We process your purchase orders, issue test samples and provide accurate technical and pricing information to support your business as efficiently as we can.

Workshops / Seminars:
To help introduce the pipeline of new ifm products and technology innovations, we can support you with hands-on workshops at your company, or at our training centre.

Meet an ifm engineer:
Interested in discovering new possibilities for your business or production process? Wish to discuss advanced technologies and solve technical problems? Or seek practical insights into the latest automation practices? Why not meet one of our engineers - either at your premises, or at our customer service centre. Or visit us at a Tradeshow. Whichever is your preference - we will look forward to hearing from you!

Go ifmonline!

Browse, select, order in the ifm webshop

ifm.com/au

my ifm - online orders:

Order 24/7
Use your 'my ifm' account to check product availability, list and net prices, and to place orders at any time.

Individual offers
Request a quote from customer service, or generate your own binding offer using 'my ifm'.

Fast / free delivery
Whether overnight or by forward date: You decide when your goods arrive (min. order value $100).

Returns
If an item you receive is not quite right? Return it with no hassle (T&Cs apply).

Competent service
Our service centre staff are there for you if you have questions or need advice.

ifm:

The company now employs a dedicated team of 68 local employees, committed to help you and your business succeed. Located throughout the country in Melbourne, Sydney, Brisbane, Adelaide, Launceston and Perth, servicing 6,000 local businesses, and delivering 76% of all PO's overnight via couriers - nationwide!

ifm - global:

ifm electronic gmbh remains a family owned private business, founded in Germany in 1969. From the start, the company has continuously invested in R&D product development & automated manufacturing.

While marketing an incredible range of electronic sensors, control products & connection solutions for industrial automation and process control applications. The company now supports customers from virtually every industry, especially those where quality and reliability are not negotiable!

Now employing 7,600 dedicated staff, located in 90 countries and servicing >180,000 customers worldwide. But despite having grown into a large company, we maintain the virtues of the founding years. The flexibility and individuality of a small enterprise, with quality and professionalism central to the group. Our customers remain today in the centre of our work - close to you.

ifm Innovation:

As one of the worlds' largest manufacturers of industrial sensors & control products, ifm made its name by developing robust, compact industrial quality products with user friendly interfaces, and flexible electronic outputs. With massive annual investments in R&D, ifm currently owns >1000 registered world-wide patents. Regularly winning numerous prestigious design awards for innovations & break-through technologies!

5 YEARS Warranty on ifm products

Our commitment to you:

ifm products are distinguished by the highest precision & reliability. You have our word on that – hence the 5-year factory under written warranty!

We want you to use our products, confident that ifm is the right partner for your automation goals.

ifm – close to you!

Product index

IO-Link products

Industry 4.0 - why and how explained
IO-Link masters & accessories
Pages: 4

A point-to-point communication interface that connects smart sensors and actuators to a control system.

IO-Link Masters

Power supplies

IO-Link masters, modules, accessories and ethernet cables
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IO-Link signal converters
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Power supplies
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Capacitive touch sensors.

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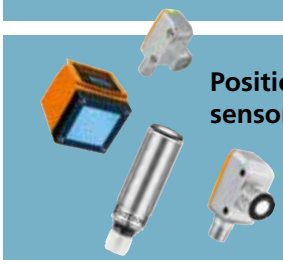
Low-profile T-slot and C-slot cylinder sensors detect cylinder position.



Position sensors

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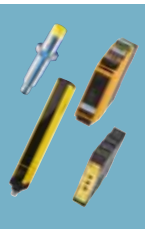

Safety products

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Networks sensors and actuators with plug-and-play functionality.

RFID
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A high frequency or UHF platform. The antennas are able to read/write multiple tags up to 10 meters.

Stock availability colour indicator:

Ex-stock AU
1-2 days

Ex-Germany
7-10 days

Industrial communications networking standard IEC 61131-9

IO-Link: Why, What and How?

After 40 years of traditional plc communication, IO-Link is the new global communication standard (IEC 61131-9) transforming how we connect and communicate with digital sensors and actuators.

Using wired or wireless configurations, this advanced technology overcomes integration challenges, allowing devices to seamlessly share enriched data sets.

Unlock potential of your machines with digital communication

Operators can now get more information, without increasing cost, engineering time or complexity.

In fact, existing infrastructure can already provide more insights! Sensors and actuators are the "eyes and ears" of equipment.

Enhanced digital communication unlocks the existing data in your system. With IO-Link data, you get access to real-time process data, parameter data, and predictive data that's more reliable and accurate than what an analog signal has traditionally provided via HART and older conventional controller communication protocols.

What is IO-Link?

IO-Link is an open standard communications protocol that is supported globally by sensor and controls companies.

The digital, bi-directional, point-to-point interface integrates with virtually any automated system. Resulting in a 100% digital path to your PLC from field-mounted sensors.

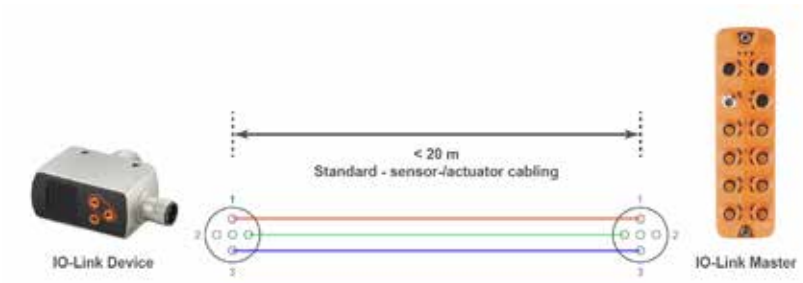
Unlike a fieldbus system, it works using a straightforward point-to-point communication method, using conventional 3-wire sensor and actuator connections.

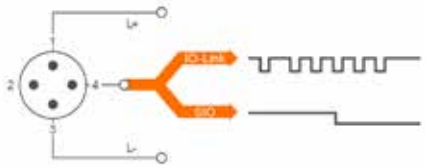
What is an IO-Link Master?

IO-Link masters replace traditional analog input cards, with a digital communication path between the IO-Link master and IO-Link device.

Up to 8 IO-Link devices such as sensors, actuators, valve feedback, and I/O modules, can be connected to a single master, depending on the configuration of the master.

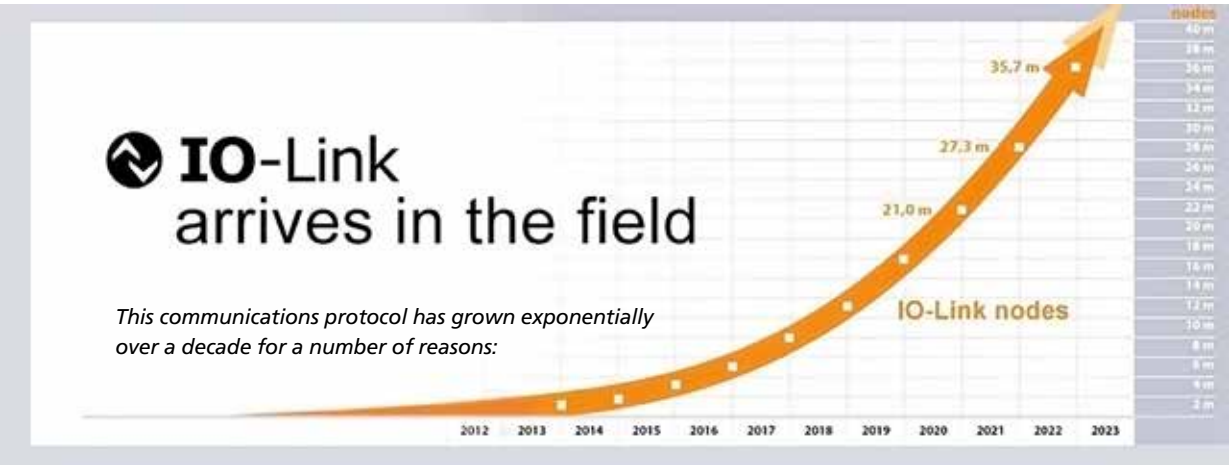
The master transmits machine data, process parameters, and diagnostic information to a PLC controller, or directly to a higher level IioT controls system.





pin	signal	remark
1	L+	24 V
2	out	depend. on sensor
3	L-	ground
4	C/Q	communication/ switching signal

Why has this technology been accepted so quickly?



IO-Link Benefits

Digital real-time communication, and easy data retrieval is a major benefit of IO-Link's implementation in todays machines, across all industries.

Higher product quality

100% digital communication is more reliable, and accurate, compared to analog signals. Predictive information from sensors improves product quality and instrument verification processes.

Lower costs

Are gained by eliminating analog input cards, while reducing the control cabinet size.

Increased efficiency

Reduce cycle time for recipe changes with bi-directional communication between process instruments and a higher level controller.

Improve machine up-time

Using the automatic device replacement feature of IO-Link enabled sensors. Parameters from an existing device are automatically downloaded into the new replacement device. Minimizing unplanned downtime.

Reduced complexity

Scalable technology from simple binary On/Off devices up to smart IO-Link enabled sensors, provides complete process transparency that quickly integrates into existing controls architecture.

Reduced cost

Savings of approximately 50% per point on input cards, without the need for analog PLC cards.

With ifm, there is no impact on sensor cost because the communication is already available in virtually all of our sensors.

Minimal changes

Replacing analog communication requires few changes to controls architecture. And each device can be connected using standard 3-wire unshielded cabling.

MONEO CONFIGURE SA

Universal parameter setting software

- **Finds all IO-Link masters in the Ethernet network and creates an overview of the whole plant.**
- **Automatic identification of the connected IO-Link sensors and actuators from all IO-Link consortium suppliers.**
- **Quick and easy parameter setting.**
- **Optimum validation via graphic visualisation.**

IO-Link System - User benefits

THE TECHNOLOGY JUMP FROM ANALOGUE TO DIGITAL

Comparisons to other communication technologies

IO-Link combines the best of all worlds with the functionality of analog signals and intelligence of Ethernet communication at the cost of binary On/Off points.

	Sensor communication			
	Binary On/off	**Analog**	**IO-Link**	**Ethernet based**
Amount of data	1 bit	16 bit	32 bytes	Many bytes
Sensor diagnostics			✓	✓
Remote sensor parameter replacement			✓	✓
Automatic sensor parameter replacement			✓	✓
Standard sensor cordsets	✓	✓	✓	
Digital communication			✓	✓
Complexity to integrate	✓	✓✓	✓✓	✓✓✓
Cost	$	$$	$	$$$

IO-Link vs. Standard Analog Wiring

Analog systems are still in use at many facilities and are less expensive to install than IO-Link. However, they suffer from data losses when the signal coverts from analog to digital so it can integrate with modern software. The data losses become more severe in setups with multiple conversion points. IO-Link is fully digital, avoiding any data losses even connections spanning large distances. In a new installation, cost is equivalent.

IO-Link vs. HART

HART protocol is well-known, especially in the food and beverage, pharmaceutical, and chemical industries. Like IO-Link, it provides bidirectional communication of data between sensors and the controls system. Digital and analog signals are transmitted over cables. Integrating HART requires specific programming knowledge.

ifm and IO-Link

In the rapidly-evolving landscape of industrial technology and automation, ifm is committed to innovation, efficiency, and conserving resources. We're dedicated to universal protocols and advancing interconnection between ecosystems.

ifm is a founding member of the global IO-Link development consortium. This group works with industry leaders to further the technology and integration, upholds quality standards, holds workshops, and more. The consortium has more than 520 members and counting.

Connected ecosystems

ifm offers one of the largest selections of sensors and other IO-Link compatible devices. Our broad offering allows you to implement a comprehensive digital communication system on all your machines and processes.

What is IO-Link? Introduction video

https://youtu.be/jv-Xiv3GcLc?si=8hRzPcw2VvqQUd7p

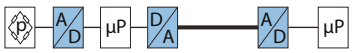
Credit: RealPars control engineering training provider.

IO-Link System - User benefits

THE TECHNOLOGY JUMP FROM ANALOGUE TO DIGITAL, EXPLAINED

► Analog vs. IO-Link digital

Conventional: Analog signals require multiple analog-to-digital conversions that affect the accuracy of the sensor's output signal.



IO-Link: Requires only one analog-to-digital conversion. This avoids conversion losses of up to 1% accuracy.

1. **Pure digital signal:** IO-Link transmits a pure digital signal value that is noise-immune and more reliable than conventional analog signals.

2. **Recipe changes:** Recipe changes can be made to multiple sensors from your controller. Downtime and production changeover is minimized.

► Sensor parameterization

Conventional: Change parameters via on-board pushbuttons.

IO-Link: Sensors can be parameterized remotely by PLC.

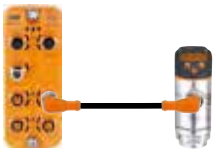
3. **Remote parameterization:** Access to all available parameters of the sensors can be reached through the plc without the need for external software and local sensor display.

4. **Simple plug-and-play sensor replacement:** IO-Link restores the sensor or actuator parameters automatically when replacing and servicing the sensors.

► Automatic device replacement

Conventional: If a sensor needs to be replaced, the sensor must be re-programmed with pushbuttons.

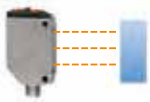
IO-Link: Data is automatically uploaded to a sensor. No need for manual parameterization.



5. **Sensor health:** On existing wiring, additional diagnostic information can be transferred for easier fault location and predictive indication.

► Diagnostic information for predictive maintenance

Conventional: It is not possible to obtain diagnostic information without changing or adding wiring in the PLC.



Ex. Clean lens 100% excess gain

IO-Link: Transfers diagnostic information on existing wiring allowing for predictive maintenance.

Ex. Dirty lens 40% excess gain

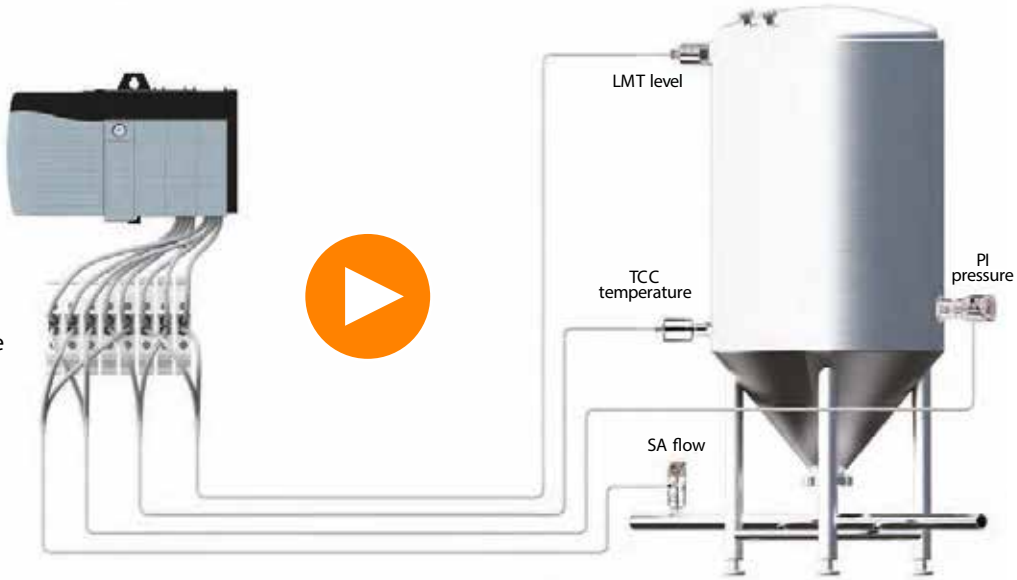
6. **Not a fieldbus dependent system:** IO-Link can be added to most existing control architectures with minimal cost.

IO-Link System - Technology improvements

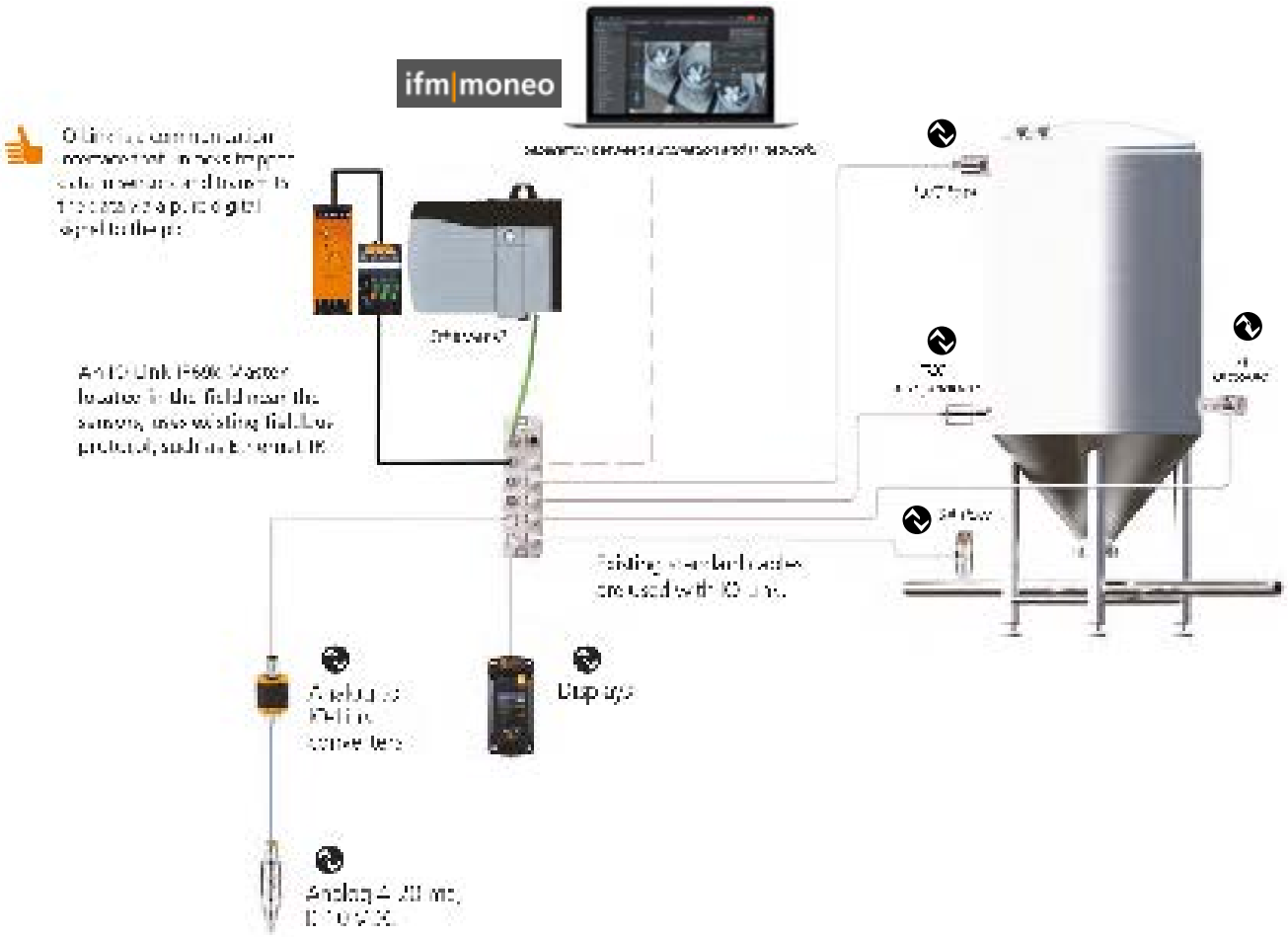
TYPICAL CONTROLS ARCHITECTURE - PROCESS TANK MONITORING

In a standard ethernet architecture, sensors can only transmit simple on / off or analog signals to the plc.

Process instruments use multiple analog cards which increase costs and limit the number of I/O.



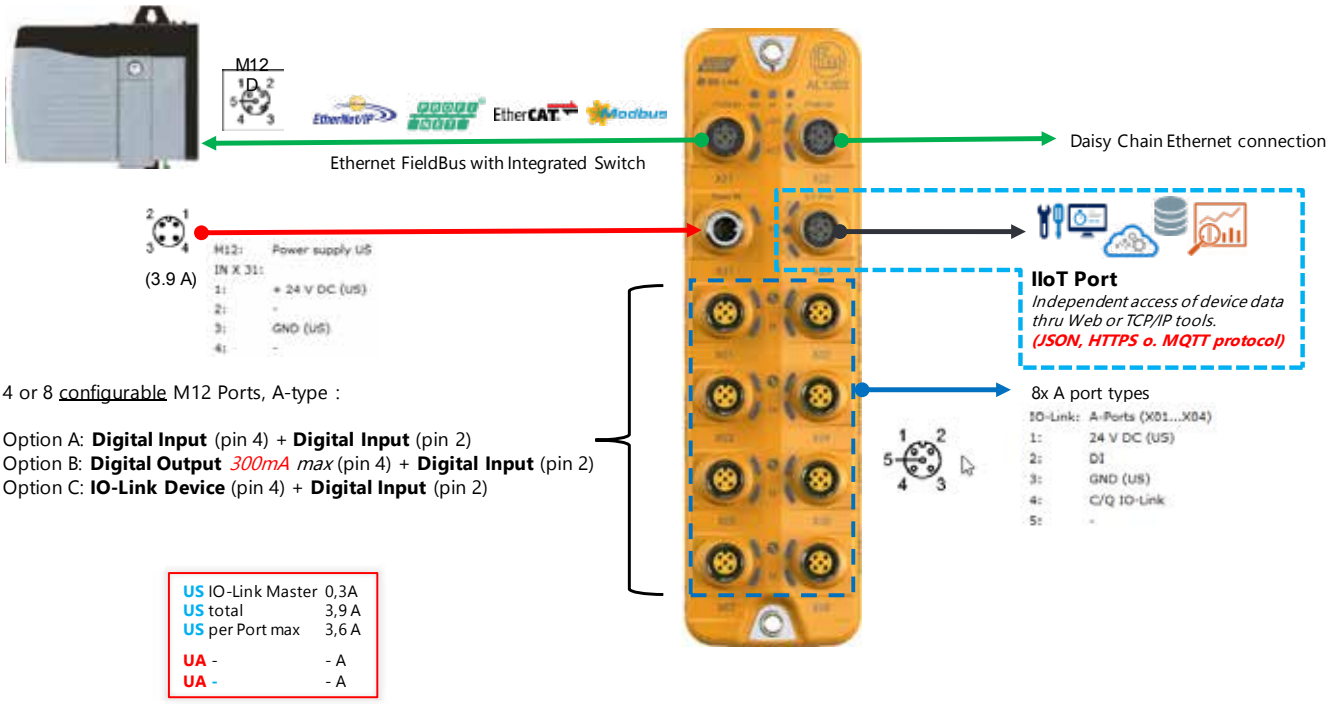
IO-Link CONTROLS ARCHITECTURE - PROCESS TANK MONITORING



IO-Link System - IIoT or Industry 4.0

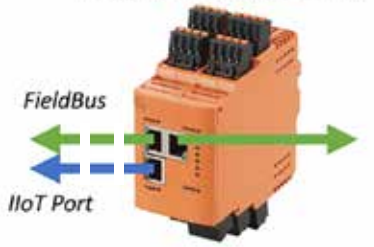
ETHERNET I/O MODULES - DATALINE

Scan to learn more



AL19 Series - Cabinet Line

In-panel Ethernet Modules

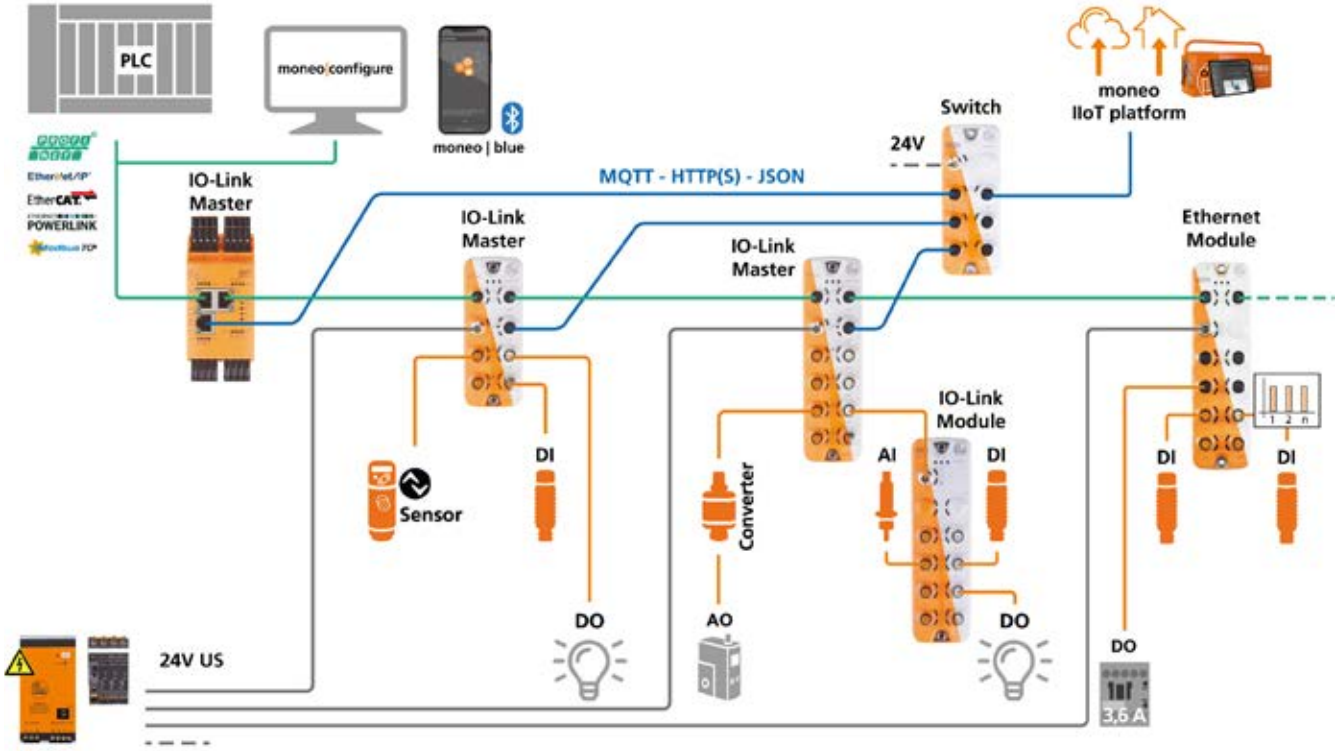


IO-LINK SYSTEM APPLICATION REPORT

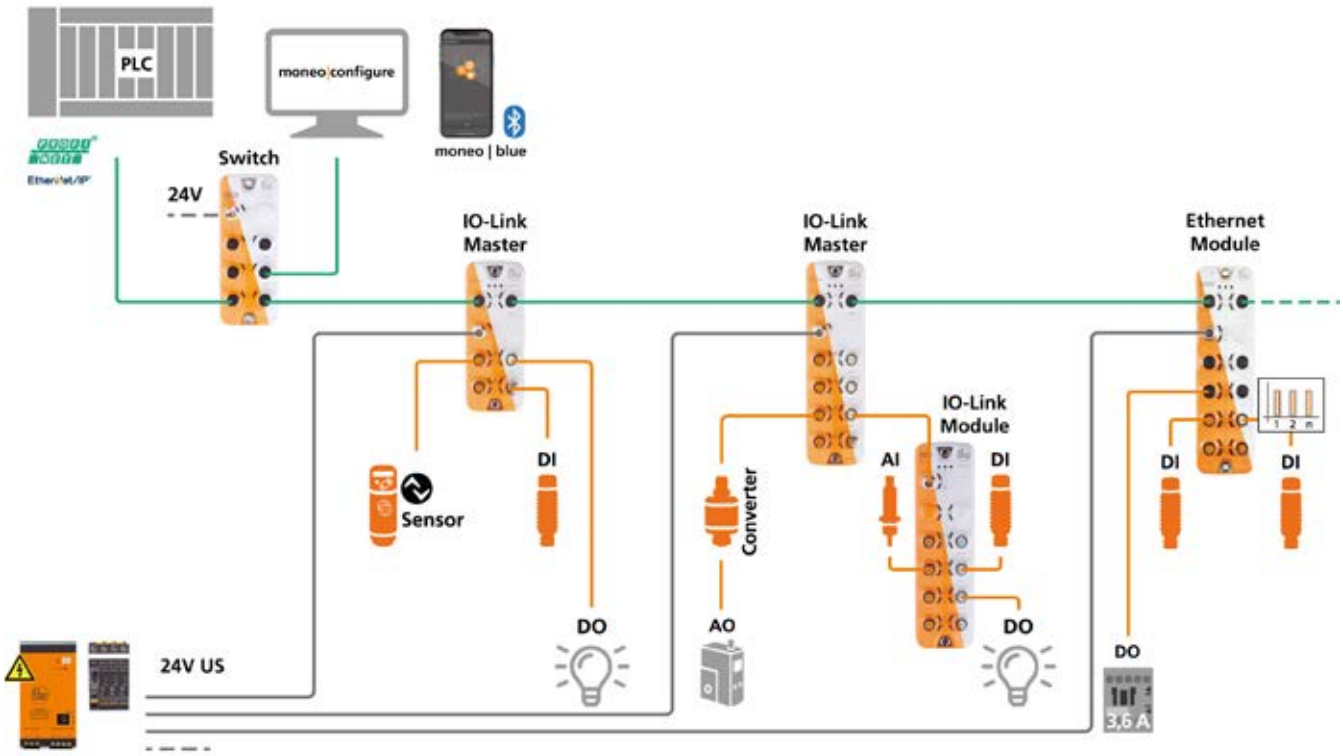
Water Treatment plant employing Dataline Masters ifm IO-Link fuses, process sensors and precision MVQ IO-Link valve actuator position feedback. This site includes legacy 4...20 mA instruments using IO-Link signal converters.

IO-Link System

MASTER OPTION 1: DATA-LINE - TOPOLOGY WITH IIOT

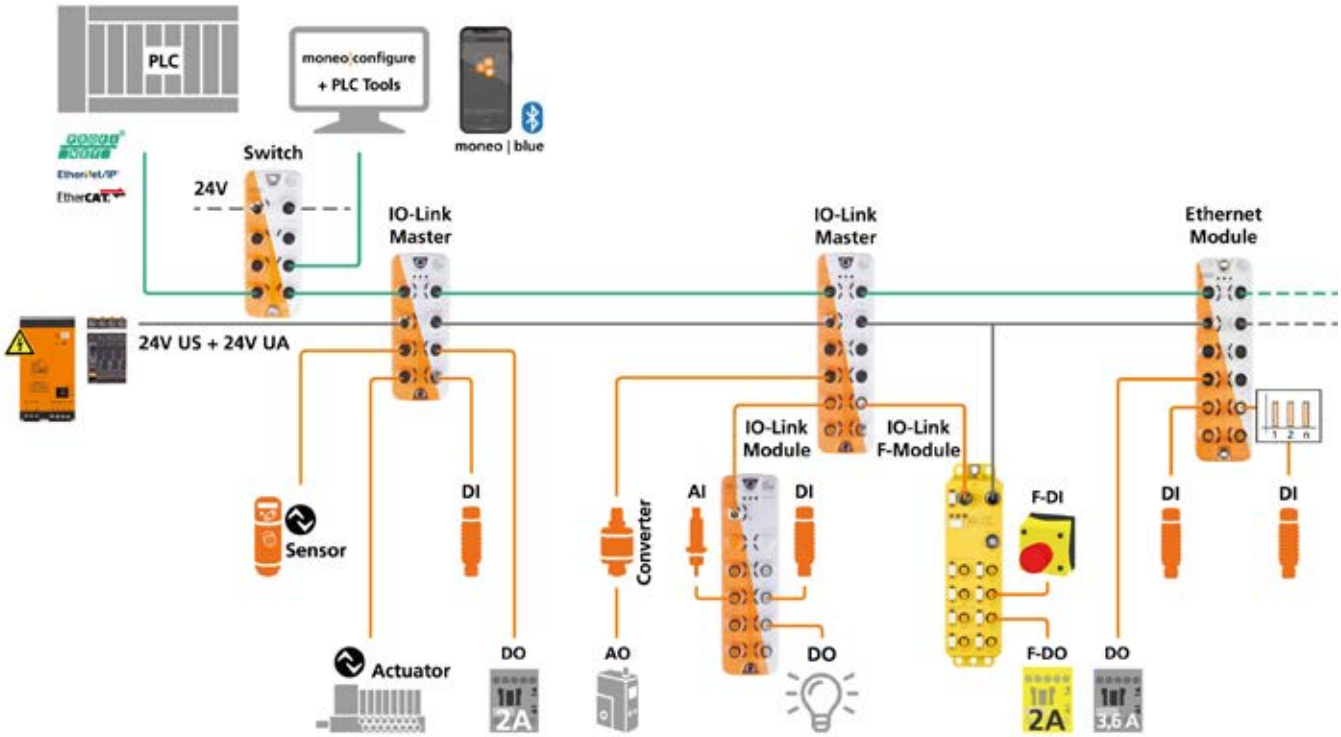


MASTER OPTION 2: STANDARD-LINE



IO-Link System

MASTER OPTION 3: PERFORMANCE-LINE FOR HIGHER CURRENT LOAD



IO-LINK SYSTEM APPLICATION REPORT

Nelspray manufacture spraying solutions for the global panel-board industry. Their Systems feature, advance flow and pressure control technology. High accuracy IO-link magnetic flow meters, pressure sensors with PLC control & IO-Link communication protocol to parameterize their sensors.

IO-Link System Components

INDUSTRIAL

Scan to learn more

Type	Description	Order no.	Price	Order no.	Price
IO-Link Master - CabinetLine					
	PROFINET+ IoT 8 ports	AL1901	$1,011.70	AL1900	$1,011.70
	EtherNet /IP + IoT 8 ports	AL1921	$1,011.70	AL1920	$1,011.70
	EtherCat + IoT 8 ports	-	-	AL1930	$1,011.70
	Modbus TCP + IoT 8 ports	-	-	AL1940	$1,011.70
	PowerLink + IoT 8 ports	-	-	AL1970	$1,011.70
	IoT only 8 ports	-	-	AL1950	$984.00
IO-Link Master - Data Line (MQTT, JSON)					
	Profinet + IoT 4-ports	AL1304	$738.30	AL1300	$738.30
	EtherNet/IP + IoT 4-ports	AL1324	$738.30	AL1320	$738.30
	EtherCat + IoT 4-ports	-	-	AL1330	$738.30
	Modbus TCP + IoT 4-ports	-	-	AL1340	$738.30
	Profinet + IoT 8-ports	AL1306	$862.40	AL1302	$862.40
	EtherNet/IP + IoT 8-ports	AL1326	$862.40	AL1322	$862.40
	EtherCat + IoT 8-ports	-	-	AL1332	$862.40
	Modbus TCP + IoT 8-ports	-	-	AL1342	$862.40

New functionalities, refer p.9

IO-Link Master - Standard Line					
	Profinet 4-port	-	-	AL1100	$709.20
	EtherNet/IP 4-port	-	-	AL1120	$709.20
	Profinet 8-port	-	-	AL1102	$826.30
	EtherNet/IP 8-port	-	-	AL1122	$826.30

INDUSTRIAL SAFETY

Type	Description	Order no.	Price
PROFIsafe module			
	PROFIsafe 8 port module. Using "PROFIsafe" transmission protocol, safety sensors and actuators can now be operated via IO-Link. When connected to a PROFIsafe IO-Link Master. Features 8x safe digital inputs (OSSD) and 4x safe outputs. The PROFIsafe transmission telegram ensures a "tunneled" connection with the safety controller within the normal IO-Link communication. Complying to safety levels SIL 3 to IEC 61508 / EN 61508.	AL200S	$1,619.40

Note: An Ethernet/IP safety master is in development by the IO-Link consortium.

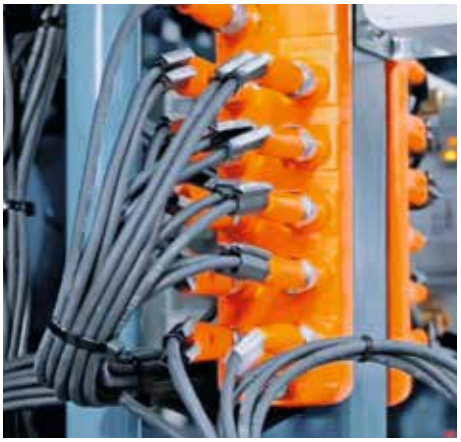
MONEO CONFIGURATION SOFTWARE

With moneo configure, a large number of IO-Link devices and ifm IO-Link masters can be configured with just a few clicks. An integrated connection to the IODD database (online search function) also facilitates the integration of third-party devices.

Convenient management of your own parameter data sets, including import and export functions, further accelerates the integration of new sensors.

IO-Link System Components

IO-LINK CONFIGURABLE MULTI-PORT MODULES



Type	Inputs	Outputs	Order no.	Price
IO-Link Configurable Multi-port modules				
	DI, 0…10V, 4…20mA*	DO 1…16*	AL2605	$858.50
	DI, 0…10V, 4…20mA* (A-port)	DO 1…16*	AL2301	$696.90
	DI 1…16*	DO 1…16*	AL2325	$650.50
	DI 1…16*	DO 1…16*	AL2321	$637.30
	6x2 DO M12 IP67	DO 12: (6x2)	AL2330	$481.60
	DI 12: (6x2)		AL2340	$335.90
	DI 20: (10x2)		AL2341	$563.80
Ethernet 6 Port Switches (unmanaged)				
	For Profinet networks		AL3000	$584.20
	TCP/IP networks; for EtherNet/IP networks; for Modbus TCP networks		AL3050	$584.20
Passive power distributor				
	Splitter Box 4SB IP67		AC5050	$170.00
	Splitter Box 8SB IP67		AC2951	$243.80
IO-Link temperature module				
	IO-Link Module, 4 x temperature sensor inputs including PT100, PT1000, thermocouple, IP67K		AL2384	$473.40
Controller pneumatics using IO-Link air-boxes				
	2 x 3/2-way valve		AL5228	$649.80
	1 x 5/2-way valve, monostable		AL5246	$538.80
	1 x 5/2-way, valve, bi-stable		AL5251	$736.10
	1 x 5/3-way valve, blocked middle position		AL5270	$813.80
IO-Link input/output module				
	Number of parameterisable digital inputs / outputs: 16		AL5021	$269.00

The AL5021 is designed to fit straight into many customary button housings, allowing connection of the control and signalling devices.

For small button housings, the AL5021 module can be mounted out- side in the cable path. The potted plastic housing provides the high protection rating IP67.

Accessories

Type	Description	Order no.	Price
	Cables (refer to page p28)	-	-
	PROTECTIVE CAP M12 10PCS	E73004	$13.30

IO-Link System Components

F&B INDUSTRY - WASH DOWN PLANT

Type	Description			Order no.	Price
IO-Link Master - Data Line (MQTT, JSON), IP69K					
	Profinet + IoT 4-ports	AL1305	$832.90	AL1301	$832.90
	EtherNet/IP + IoT 4-ports	AL1325	$832.90	AL1321	$832.90
	EtherCat + IoT 4-ports	-	-	AL1331	$832.90
	Modbus TCP + IoT 4-ports	-	-	AL1341	$832.90
	Profinet + IoT 8-ports	AL1307	$984.20	AL1303	$984.20
	EtherNet/IP + IoT 8-ports	AL1327	$984.20	AL1323	$984.20
	EtherCat + IoT 8-ports	-	-	AL1333	$984.20
	Modbus TCP + IoT 8-ports	-	-	AL1343	$984.20

New functionalities, refer p.9

IO-Link Master - Standard Line, IP69K					
	Profinet 4-port	-	-	AL1101	$809.30
	Profinet 8-port	-	-	AL1103	$954.50
	EtherNet/IP 4-port	-	-	AL1121	$809.30
	EtherNet/IP 8-port	-	-	AL1123	$954.50
IO-Link Master - Standard Line, IP69K					
	AS-i 4-port	-	-	AC6001	$677.60

IO-Link PARAMETER SETTING SOFTWARE, MONEO | CONFIGURE FREE

Type	Description	Order no.	Price
	Moneo configure kit (includes the three parts below: AL1060, E12689, EVC012)	ZZ1060	$614.50
	moneo configure SA License • For all IO-Link devices and IO-Link masters • Integrated, manufacturer-independent IODD management for time-saving sensor parameter setting. • Cockpit for parallel display of parameters and process values.	QMP010	$304.50
	IO-Link Master USB 1P IP67	AL1060	$570.60
	USB/M12 CABLE	E12689	$48.20
	Connection cable	EVC012	$46.70

With moneo configure, a large number of IO-Link devices and ifm IO-Link masters can be configured with just a few clicks. An integrated connection to the IODD database (online search function) also facilitates the integration of third-party devices.

Convenient management of your own parameter data sets, including import and export functions, further accelerates the integration of new sensors.

IO-Link System Components

F&B INDUSTRY - WASH DOWN PLANT

Type	Inputs	Outputs	Order no.	Price
IO-Link Configurable Multi-port modules				
	DI, 0…10V, 4…20mA*	DO 1…16*	AL2205	$845.40
	DI, 0…10V, 4…20mA* (A-port)	DO 1…16*	AL2201	$783.90
	DI 1…16*	DO 1…16*	AL2225	$741.30
	DI 1…16*	DO 1…16*	AL2221	$728.10
	–	DO 12: (6x2)	AL2230	$495.50
	DI 12: (6x2)	–	AL2240	$402.80
	DI 20: (10x2)	–	AL2241	$657.80
Ethernet 6 Port Switches (unmanaged)				
	For Profinet networks		AL3001	$678.00
	TCP/IP networks; for EtherNet/IP networks; for Modbus TCP networks		AL3051	$678.00
Passive power distributor				
	ProcessLine 4SB IP69K		AC2950	$196.00
	ProcessLine 8SB IP69K		AC2951	$243.80
IO-Link temperature module				
	IO-Link Module, 4 x temperature sensor inputs including PT100, PT1000, thermocouple, IP69K		AL2284	$613.30

Accessories

Type	Description	Order no.	Price
	Cables (refer to page 28)	-	-
	M12 316SS Protective caps (4 pieces per bag)	E12542	$26.30
	Ethernet adapter M12 / RJ45	E21140	$118.80
	Ethernet RJ45 connector	E12514	$69.10

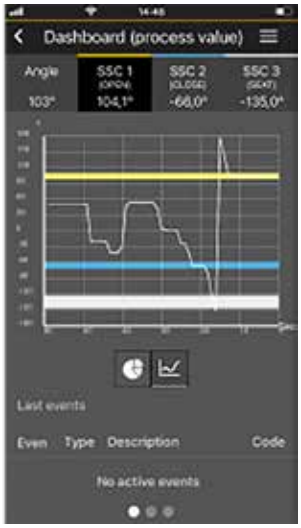
IO-Link Ethernet Cable Connectors

MONITOR AND CONFIGURE IO-LINK DEVICES VIA BLUETOOTH ADAPTER

- **New IO-Link Bluetooth adapter allows access to sensors via smartphone***
- **Easy parameter setting and reading of process values and events of all IO-Link devices connected to the master**
- **ifm moneo|blue available free of charge for iOS and Android**
- **Convenient parameter setting of many sensors thanks to graphic representation**

Download on the App Store

FREE DOWNLOAD VIA THE APP STORE!



https://www.ifm.com/au/en/shared/productnews/2024/launch-09/bluetooth-mesh-system-for-easy-retrofitting

IO-Link MASTER SENSOR VALUE DISPLAY

Type	Description	Order no.	Price
128 x 128 resolution, 1.44" TFT LED display			
	IO-Link display · Connection to master · Assignment of the values displayed by the controller ·	E30391	$288.80
	IO-Link inline display · Connection between master and sensor Visualisation of the values of the connected sensor	E30430	$340.20
	IO-Link display · Shows all sensor process values connected to a master	E30443	$452.30

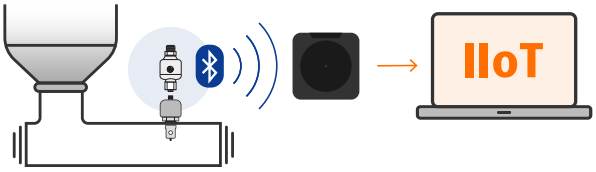
IO-Link Accessories

SIGNAL CONVERTERS & ADAPTORS

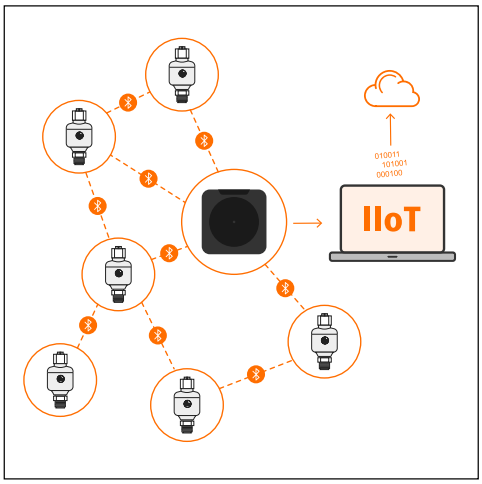
Type	Function	Input	Ouput	Industrial		Wash-down	
				IP67	Price	IP69K	Price
	Converter IO-Link ››› Analogue output	IO-Link	2x analog 4…20 mA	DP1213	$337.00	DP3213	$355.50
	Converter IO-Link ››› Analogue output	IO-Link	2x analog 0…10 V	DP1223	$311.40	DP3223	$331.40
	Converter Analogue ››› IO-Link	2x analog 0…10 V	IO-Link	DP1222	$311.40	DP3222	$331.40
	Relay-Adapter	2x digital PNP	2x Solid state relay normally open	DP1603	$198.20	DP3603	$230.40
	Relay-Adapter	2x digital PNP	2x solid state relay normally closed	DP1613	$198.20	DP3613	$230.40
	Speed monitor	1x digital PNP	2x digital PNP/NPN	DP2122	$310.10	DP4122	$300.60
	Converter Analogue ››› IO-Link	1x analog 4…20 mA	1x digital, 1x analog	DP2200	$265.50	DP4200	$256.70
	Counter	2x digital PNP	2x digital PNP/NPN	DP2302	$316.10	DP4302	$305.10
	Pulse extender	2x digital PNP	2x digital PNP	DP2402	$277.80	DP4402	$276.50
	IO-Link inline bluetooth adapator				-	EIO330	$330.50
	Bluetooth Mesh adapter				-	EIO344	$320.60
	Bluetooth Mesh base station				-	EIO404	$979.10

Scan to learn more

THE POSSIBILITIES OF BLUETOOTH MESH



The Bluetooth Mesh system consists of up to 50 Bluetooth adapters that can be paired with a base station. The adapters are connected to IO-Link sensors (manufacturer-independent) and transmit the process data to the base station via Bluetooth. If the base is outside the range of an adapter, one or more adapters act as intermediaries and pass on the information. Using ifm's IoT Core and MQTT/JSON, the base transfers the sensor data to downstream IIoT systems.



ACCESSORIES

Type	Description	Order no.	Price
	Mounting Clip • Reliable fixing of the IO-Link mini display • Easy, quick and secure mounting • Robust design for use in harsh industrial environments	E89208	$26.00
	IO-Link repeater • Extension of IO-Link range up to 80 m • Series connection of max. 3 repeaters possible	E30444	$476.60

For more insights:

Power supplies

INDUSTRIAL ETHERNET D-CODE CABLE (FIELDBUS) GREEN, PUR / NI PL BRASS CONNECTORS

	RJ45 - M12, 4-pole	Price	RJ45 - M12. 4-pole	Price	Jumper . M12/M12 . 4-pole	Price	Plug . M12 flying lead, 4-pole	Price
0.5 m	EVC924	$39.20	EVC930	$39.20	EVC904	$38.30	-	-
1.0 m	-	-	-	-	EVC905	$43.70	-	-
2.0 m	EVC926	$54.90	EVC932	$54.90	EVC906	$54.20	EVC893	$32.70
5 m	EVC927	$85.40	EVC933	$85.40	EVC907	$85.20	EVC894	$63.90
10 m	EVC928	$137.10	EVC934	$137.10	EVC908	$137.10	EVC895	$115.30
20 m	-	-	EVC935	$239.50	EVC909	$240.10	EVC896	$218.60
50 m	-	-	-	-	-	-	EVC897	$529.10

WASHDOWN ETHERNET D-CODE CABLE (FIELDBUS), GREY, MPPE, SS316L CONNECTORS (INDOOR F&B)

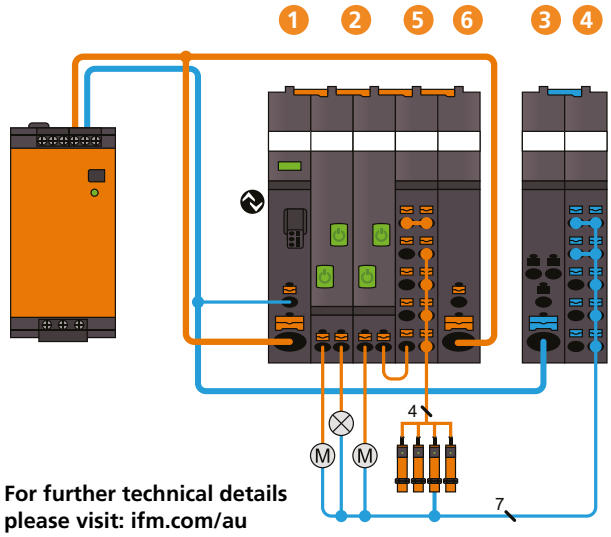
	RJ45 - M12, 4-pole	Price	RJ45 - M12. 4-pole	Price	Jumper . M12/M12 4-pole	Price	Plug . M12 flying lead, 4-pole	Price
0.25 m	-	-	-	-	EVF528	$52.30	-	-
0.5 m	EVF549	$54.70	-	-	EVF529	$54.90	-	-
1.0 m	EVF550	$60.20	-	-	EVF530	$60.90	-	-
2.0 m	EVF551	$71.70	EVF557	$69.10	EVF531	$72.30	EVF518	$47.10
5 m	EVF552	$104.80	EVF558	$101.30	EVF532	$105.90	EVF519	$81.10
10 m	EVF553	$160.50	EVF559	$155.10	EVF533	$162.00	EVF520	$137.30
20 m	EVF554	$272.60	EVF560	$262.70	EVF534	$274.30	EVF521	$249.80
50 m	-	-	-	-	-	-	EVF522	$588.10

24V DC SWITCHED MODE POWER SUPPLIES - HIGH EFFICIENCY, SPACE SAVING

Permanent output current / peak at 24 V	Input voltage [V AC]	Buffer time (120/230 V AC) [ms]	Order no.	Price
24 V DC switched-mode power supplies for control cabinet installation				
1.25 A	100...240	-	DN1030	$219.50
2.5 A	100...240	-	DN1031	$260.40
3.3 A / 3.3 A	100...240	30 / 128	DN4011	$335.50
4.1 A / 60 A	100...240	27 / 27	DN1022	$402.00
5 A / 6 A	100...240	80 / 78	DN4012	$444.40
10 A / 12 A	100...240	46 / 47	DN4013	$580.60
20 A / 24 A	100...240	26 / 26	DN4014	$757.70
5 A / 6 A	2 x 380...480	27 / 48	DN4032	$517.10
10 A / 12 A	3 x 380...480	34 / 54	DN4033	$618.60
20 A / 30 A	3 x 380...480	22 / 22	DN4034	$828.20
40 A / 60 A	100...240	27 / 27	E84016	$1,339.40
40 A / 60 A	3 x 380...480	–	E84036	$1,163.90
24 V DC switched-mode power supplies for FIELD MOUNTING IP67				
12 A, 1 PH	100...240	44 / 44	DN4218	$1,544.80
20 A, 3 PH	400...480	24 / 24	DN4234	$1,605.70
20 A, 3 PH	400...480	24 / 24	DN4237	$1,711.50

IO-Link System Components

ELECTRONIC CIRCUIT BREAKER



For further technical details please visit: ifm.com/au

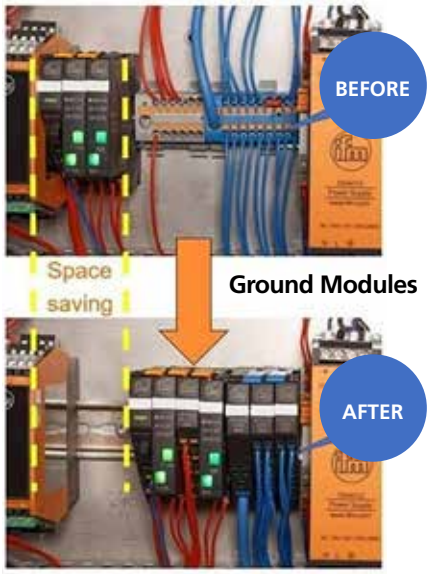
- **Modular, selective protection in plant and machinery**
- **Reliable circuit protection allows reduction of wire cross sections**
- **Fast replacement using innovative connection technology**

Detection of triggering cause (via IO-Link)

Current and voltage measurement in each channel (via IO-Link)

Modular installation

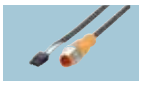
The system has a modular structure and consists of a supply module to feed max. 40 A. The protection modules can be mounted side by side. This is done via a simple clip mechanism, completely without any bridges, jumpers or the like. Potential modules are used to distribute the circuits and wire the ground lead. Easy mounting and minimised wiring complexity save cost and time. With the standard version the user can connect up to 10 and with the IO-Link version up to 8 safety modules to the head module.



Products

	Inputs [V DC]	Nominal current [A]	Order no.	Price	Order no.	Price
1	**Supply modules**		**IO-Link**		**standard**	
	24, 40 A	–	DF2101	$162.30	DF1100	$66.90
2	**Protection modules**		**IO-Link**		**standard**	
	–	2 x 2	DF2212	$134.30	DF1212	$118.60
	–	2 x 4	DF2214	$134.30	DF1214	$118.60
	–	2 x 6	DF2216	$134.30	DF1216	$118.60
	–	1 x 8	DF2208	$117.50	DF1208	$104.40
	–	1 x 10	DF2210	$117.50	DF1210	$104.40
	–	2 x 1...10	DF2220	$153.40	DF1220	$140.70
	GND and load modules					
3	**Feed module GND, 1 x 10 mm²**				DF3100	$27.50
4	**Potential module GND, 10 x 2,5 mm²**				DF3110	$67.60
5	**Potential module LOAD 2 x 5 x 2,5 mm²**				DF3200	$74.20
6	**Feed module**				DF3210	$54.70

Accessories

Type	Description	Order no.	Price
	IO-Link connection cable, 0.5 m, M12 connector	E12613	$56.80
	IO-Link connection cable, 2 m, open end	E12614	$57.50

IO-Link System - with HMI PLC controller

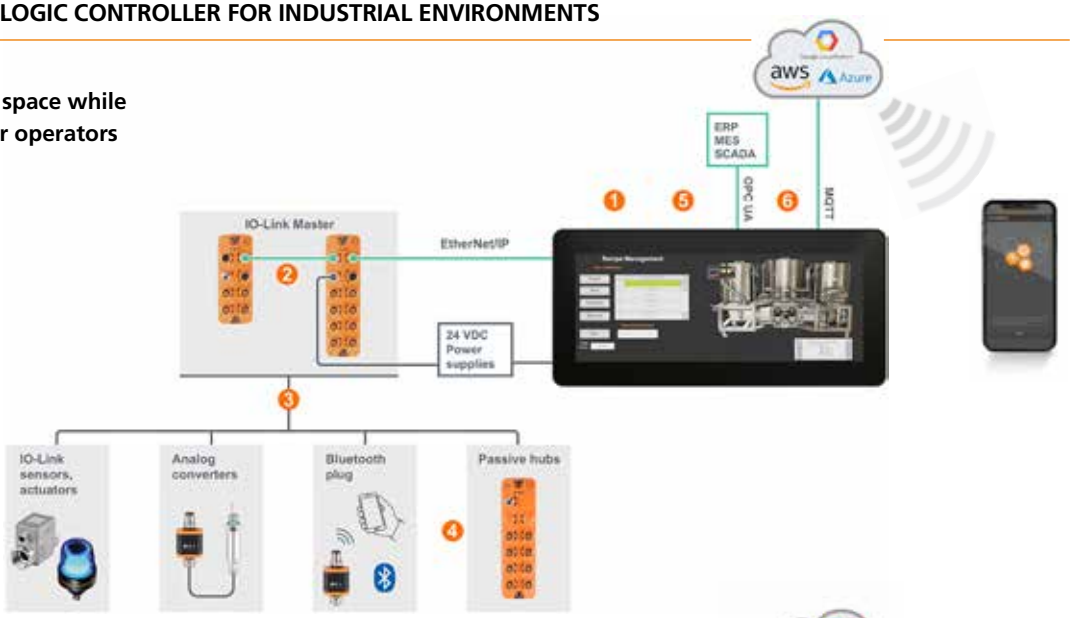
FIELD PROGRAMMABLE LOGIC CONTROLLER FOR INDUSTRIAL ENVIRONMENTS

Free up electrical cabinet space while improving ergonomics for operators

Example controls architecture

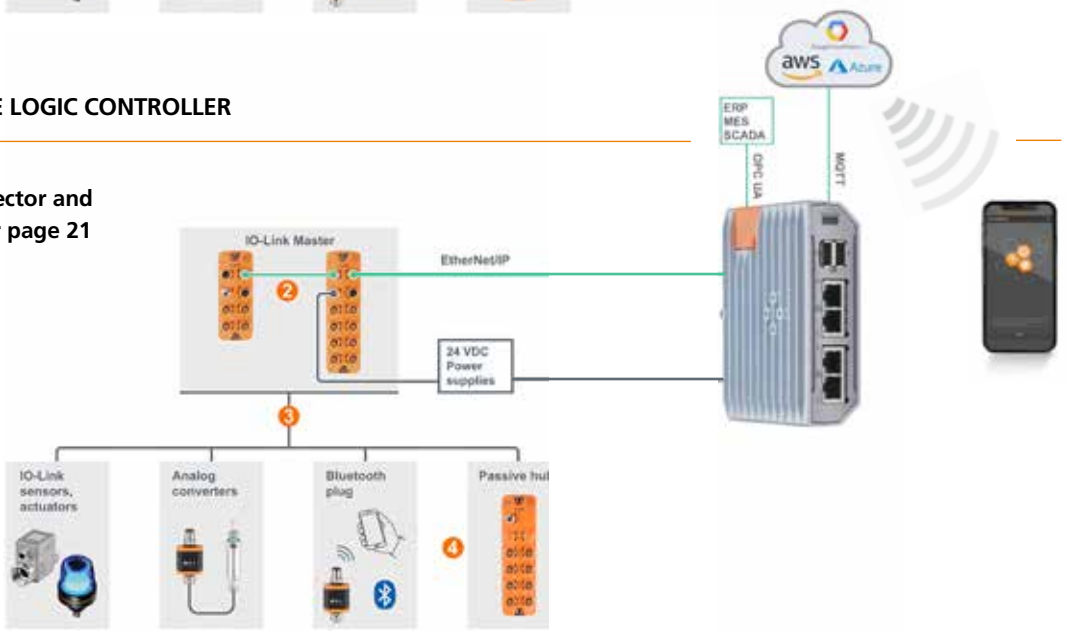
1. HMI Controller
2. 16 10-Link Masters
3. 90 10-Link Inputs
4. 38 Digital Outputs
5. CODESYS V3.5 Software
6. IIoT Software Connectors

For more insights:



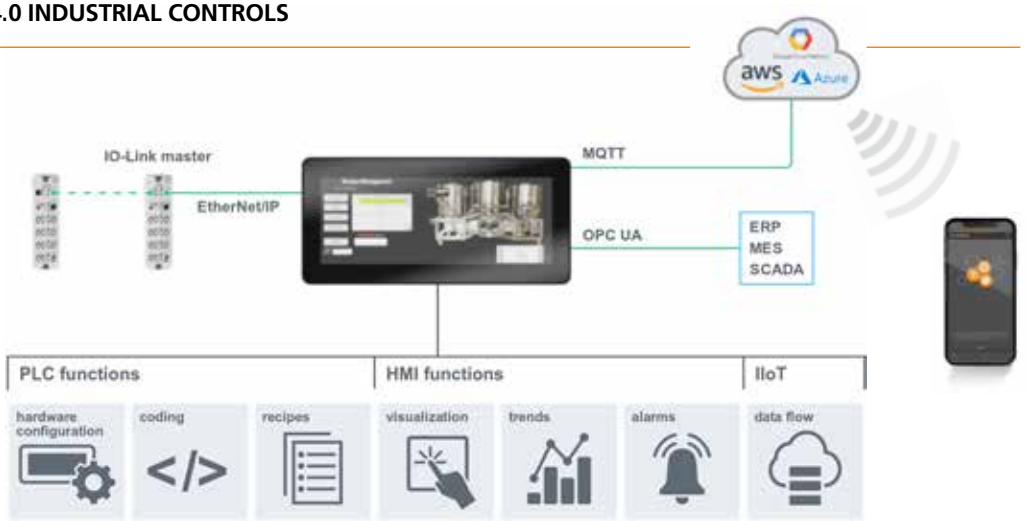
PANEL PROGRAMMABLE LOGIC CONTROLLER

Robust 2 in 1 cloud connector and powerful controller, refer page 21



CODESYS SOFTWARE FOR I4.0 INDUSTRIAL CONTROLS

Easy to use software for application programming and configuration setting



Fully functional PLC with integrated HMI

LED displays with optical bonding	Order No.				
	CR1152	CR1077	CR1102	CR1204	CR1203
Display	5.0"	7.0"	10.0"	12.0"	12.3"
Prices	$2,907.20	$4,600.40	$5,037.20	$5,775.90	$5,782.80
Aspect ratio	16:10	16:10	16:10	16:10	8:3
Resolution	800 x 480	800 x 480	1280 x 800	1280 x 800	1280 x 480
Colour depth	24 bit	18 bit	24 bit	24 bit	24 bit
Touch	●	●	●	●	●
Controller with GPU	dual core, 800 Mhz	quad core, 1.2 GHz	ARM Quad Core 64 Bit, 1.2 GHz	ARM Quad Core 64 Bit, 1.2 GHz	quad core, 1.2 GHz
Memory (RAM) [GByte]	1	1	1	1	1
Memory (flash) [GByte]	4	8	8	8	8
Buttons (RGB backlit)	4	6	8	10	-
Navigation element	cross	cross	cross	cross	-
COMMUNICATION INTERFACE					
Ethernet	1	2	2	2	2
CAN	4	4	4	4	4
USB 2.0	1	2	2	2	2
Analogue video interfaces	2	4	4	4	4
AUDIO INTERFACES					
Stereo Out (amplified)	1	1	1	1	1
Line In	-	1	1	1	1
Headphones Out	-	1	1	1	1
INPUTS / OUTPUTS					
Digital In BL	2	2	2	2	2
Digital Out 2.5 A	2	2	2	2	2

POWERFUL, VERSATILE CABINET PROGRAMMABLE LOGIC CONTROLLER

- **2-in-1: cloud connector and powerful controller**
- **Perfect IO-Link integration**
- **Plug & Work access to the I/O level via Ethernet**
- **Can be mounted on the DIN rail in different orientations**
- **CODESYS 3.5**

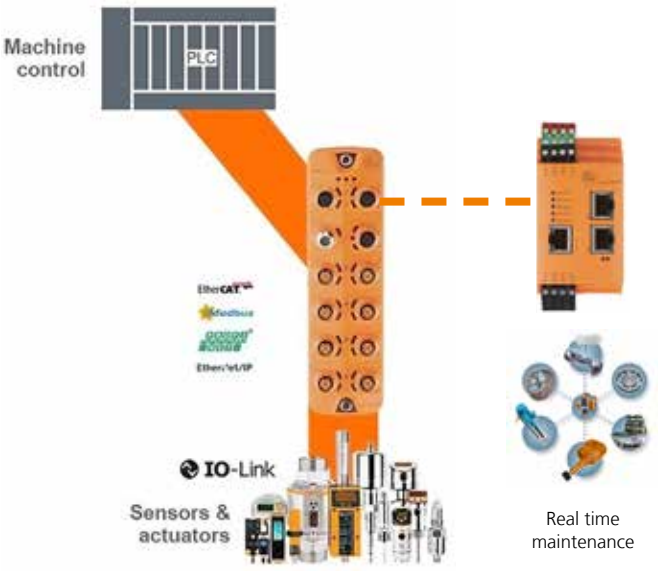
Description	Order no.	Price
IIoT Controller IP20 1S		
Communication interface Ethernet; USB, Number of Ethernet interfaces 4, Number of USB interfaces 2	AE3100	$1,414.30

Moneo: IIoT platform for industry and production

A new approach to collecting sensor data

Scan to learn more

TALK DIRECTLY TO YOUR IIoT SYSTEM WITHOUT PLC INTERVENTION



The PLC only uses 5% of the sensor information.
Data size is in bytes and cycle time in msec.

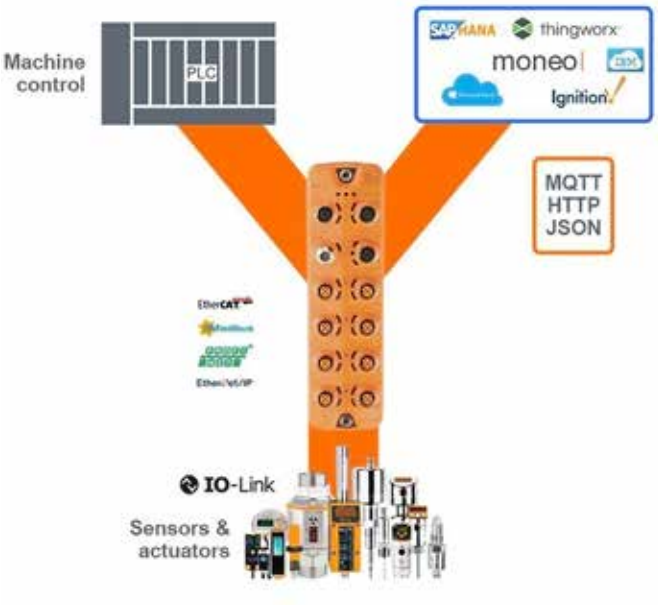
Digital communication technology allows you to get more detailed information from your sensors. But, overloading your PLC will limit the amount of that data you can actually receive and use.

Using IO-Link technology with a Y-path connection gives you full access to real-time machine information without overloading your system.

Don't let your PLC carry the entire burden!

The PLC has been a mainstay of automation since the 1970's and it is used to control industrial automated equipment. With the advent of Ethernet technologies and IIoT applications, the PLC has been forced to carry more and more information that is not necessarily used to control the machines.

Y-PATH CONNECTIVITY



HMI, visualization computers, servers, PCs, etc. use 95% of the sensor information.
Data size is in Mbytes and cycle time is in seconds.

Imagine if your sensors could talk directly to your SCADA, MES, ERP, CMMS systems directly without the PLC intervention and still send the information to the PLC for machine control?

This is now possible with the Y-path from ifm.

Our IO-Link masters come with a separate IIoT port with a dedicated IP address for the IT infrastructure. This works in any number of industrial applications without affecting the machine control side of the system. This unique approach allows you to send information and data directly to where it is needed.

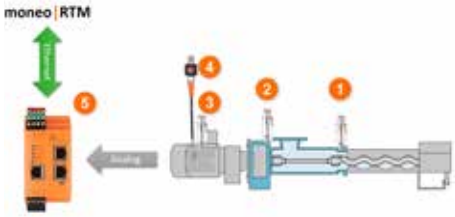
moneo | application reports

CONTINUOUS CONDITION MONITORING OF SLUDGE AND DRAINAGE PUMPS IN THE WASTE WATER INDUSTRY

Waste water treatment plant Kressbronn, Germany

At the waste water treatment plant Kressbronn, numerous pumps with various characteristics are used to convey liquid media through the various areas of the waste water treatment plant. Unplanned downtime can have severe repercussions, potentially disrupting the entire municipal waste water disposal system or even causing a complete halt to its operations.

In the case of liquid pumps, bubbles can form if the pressure difference between the inlet and outlet side is too high: Resulting in cavitation. The tiny bubbles filled with vapour collapse suddenly due to the high pressure. This sudden collapse creates shock waves that repeatedly erode the pump element and the pump housing from the inside. If the damage becomes too great, the pump can no longer work properly. In the worst case, expensive repairs or even the replacement of the pump may become necessary.

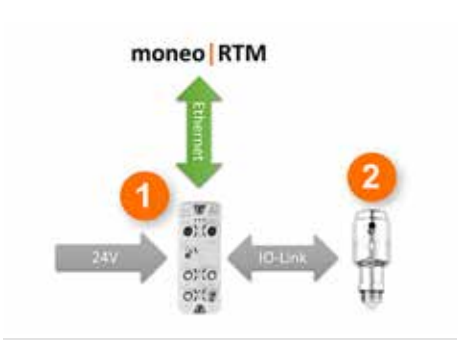


1. Vibration sensor pump bearing NDE VSA001
2. Vibration sensor pump bearing DE VSA001
3. Vibration sensor motor bearing VSA001
4. Temperature sensor motor TP3232 + TS2229
5. Diagnostic electronics for vibration sensors VSE150

1. Vibration motor bearing [mg]
2. Cavitation recognition pump DE [mg]
3. Time counter cavitation DE [h]
4. Vibration pump bearing DE [mg]
5. Cavitation recognition pump NDE
6. Time counter cavitation NDE [h]
7. Vibration pump bearing NDE [mg]
8. V-effective pump bearing NDE [mm/s]
9. V-effective pump bearing DE [mm/s]
10. V-effective motor bearing [mm/s]
11. Motor temperature [C°]

CONTINUOUS RADAR LEVEL MEASUREMENT OF CIP TANKS, WITH MONEO RTM

The non-contact level measurement principle with radar offers many advantages for monitoring a CIP system. Contact with media (acids, alkalis) and heating coils is avoided so that the measurement is independent of the temperature and density of the media. These advantages complete the quality assurance of the CIP cleaning process.

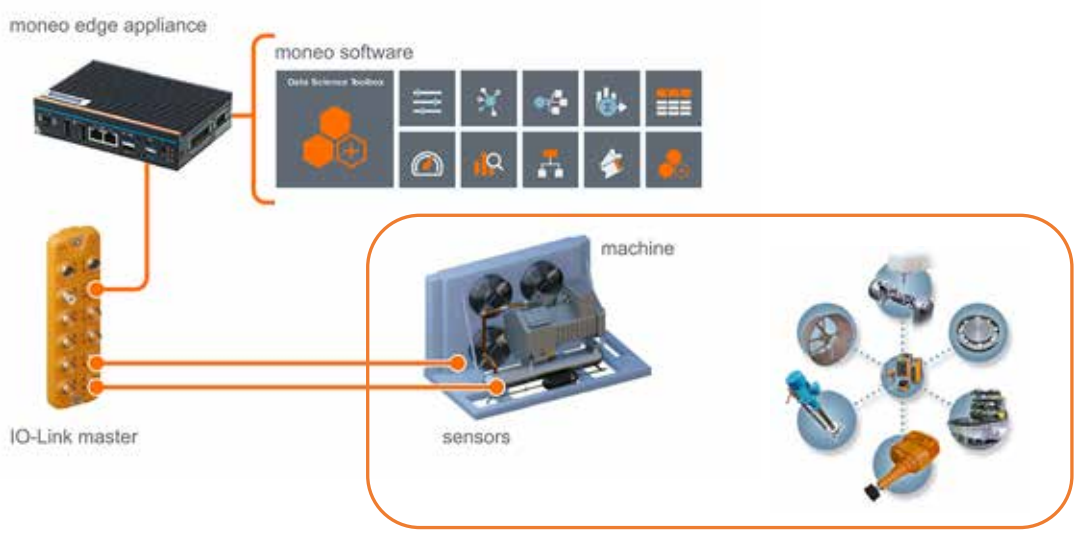


1. IO-Link master (e.g. AL1351)
2. 1 LW2720 level sensor LW2720

1. Level in metres
2. Volume in litres

moneo | application guide

MONEO | APPLIANCE STANDALONE SYSTEM



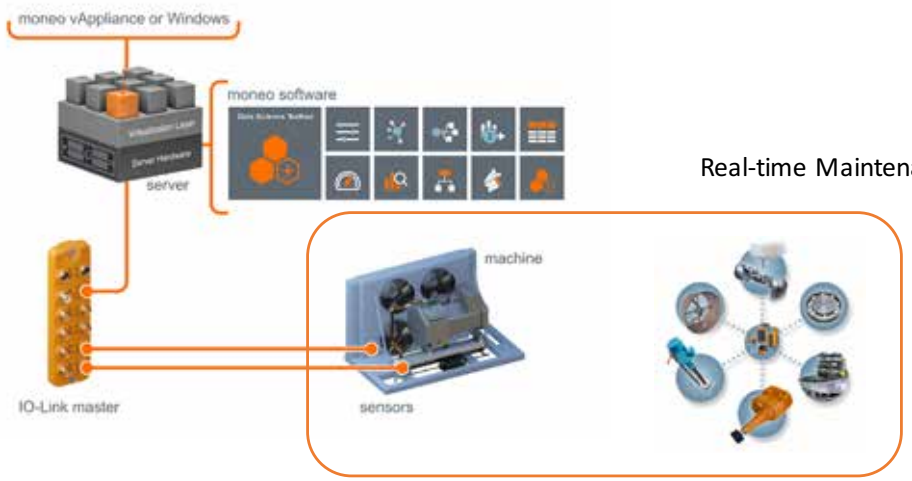
The moneo | appliance is an industrial PC (IPC) preloaded with all moneo software products (license sold separately). The onboard applicance management system (AMS) allows for data backup, software updates, and other administrative tasks.

The appliance provides a standalone environment you can use for a condition based monitoring proof-of-concept of the moneo platform. It can be implemented locally without connecting to your existing IT infrastructure until you are ready to integrate into your SCADA system

moneo Appliance
IT hardware for operation of moneo
providing memory capacity and processing power
moneo software preinstalled
Easy set-up without requiring special IT knowledge

QHA210 **$4,128.90**

MONEO | VAPPLIANCE



With the moneo | vAppliance, you can use virtual technology and computing power, network connection and storage capacity of the existing servers and storage systems of your current IT infrastructure.

Moneo vAppliance
For the operation of moneo in virtualisation environments

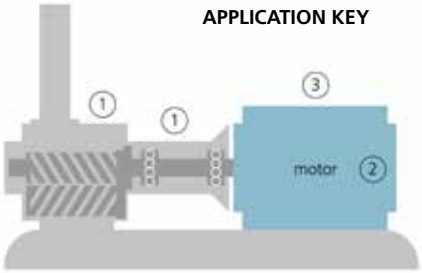
QVA200 **$10,737.50**

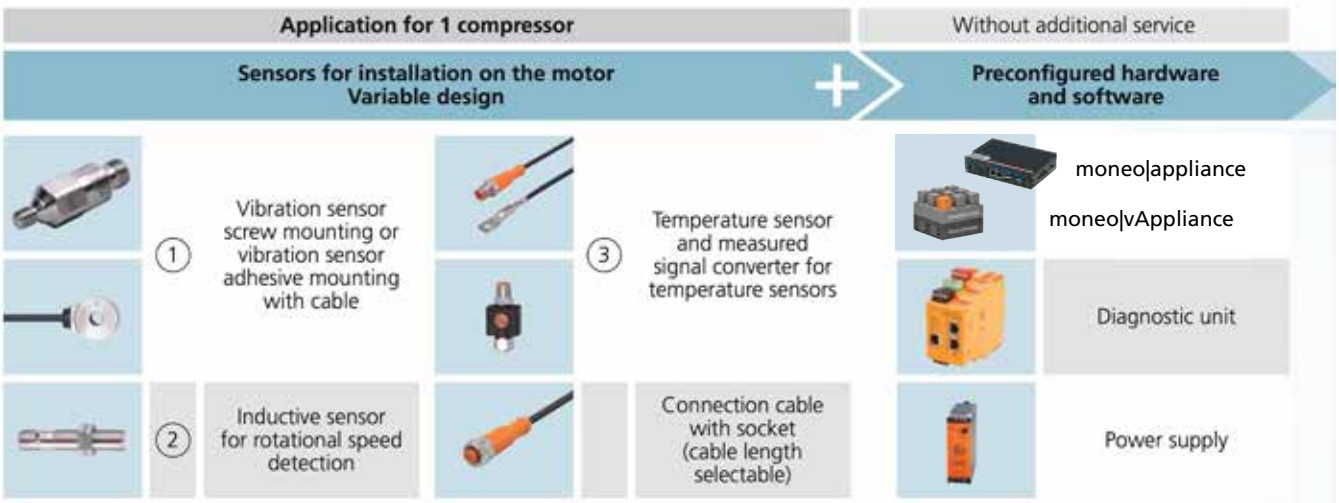
moneo | application report

CONTINUOUS CONDITION MONITORING OF A REFRIGERATION SYSTEM COMPRESSOR SET

- **Continuous diagnostics:** Detection of motor damage with full coverage of the real operating hours.
- **Early detection:** Monitoring of unbalance, wear and overall vibration. Detection of unbalance vibration, shaft misalignment and rotor wear in the compressor.
- **Maximum efficiency:** Permanent diagnostics of winding problems or dirt accumulation in the electric motor by temperature measurement.
- **Easy integration:** ifm provides individual solutions suited for different types of compressors.

ifm|moneo





moneo OS: the IIoT platform

The heart and management tool for all moneo apps. Intelligent device integration enables a digital image of the system. Tool for calculating data flow models and with automatic alarm function.

QMS001 | $1,075.40

moneo infopoints: The data volume

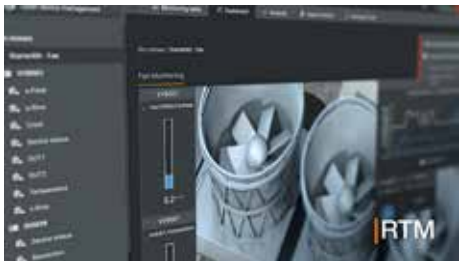
Scalable applications through licensing of data and information points.

QMI001 | $26.90

moneo edgeConnect: the communication interface

Translates sensor data into readable information and bridges the gap between OT and IT.

QMC206 | $1,141.30



moneo RTM: the analysis software

The condition monitoring app for plant monitoring and real-time maintenance. Comprehensive data analysis, less downtime, more efficient maintenance planning and cost-optimised production processes.

QMR001 | $1,799.70

moneo DataScience Toolbox: the artificial intelligence

The intelligent toolbox for intelligent monitoring and optimisation of manufacturing processes via early warnings and alarms.

QM9103 | $5,486.90

moneo configure: the parameter setting software

The app for parameter setting and management of IO-Link devices and ifm IO-Link masters. Integrated, manufacturer-independent IODD management for time-saving sensor parameter setting. Cockpit for parallel display of parameters and process values.

QMP010 | FREE

moneo | software modules

PERFORMANCE FEATURES

Configure device
- Find all devices connected to the network
- Configure IP addresses of IO-Link masters
- Adjust parameters of IO-Link sensors
- Quickly view real time process values from sensors

IODD management
- View local and online IODD catalog
- Install updates
- Import IODD files

Device management
- View all devices and calculated values
- Select desired infopoints from each sensor or calculated value
- Manually add new devices by IP address

Calculated values
- Simple drag and drop interface for logic/math functions
- Preconfigured templates available or create your own
- Produces additional infopoints from sensor values

Monitoring table
- Displays all process values with time/date stamp from devices currently on the network
- Provides verification that devices have been properly added

Dashboard
- Drag and drop interface to quickly create custom dashboards for a machine or process
- Images and drawings of equipment or processes can be uploaded
  - Selectable visualizations – thermometer, gauge, traffic light, chart, etc.

Data Science Toolbox
- Smart machine learning algorithms
- Models trained using normal operating conditions, no fault conditions needed
- Easy guided templates for configuration
- Automatic machine evaluation and alert settings

Analysis
- Provides tools to view historical data from the system as graphical trends
- Simply drag in process values and select the time range
- Export data for further analysis

Settings & rules
- Define thresholds for warning and alarm conditions
- Establish rules for actions when threshold values are reached including raw data recording & e-mail/text notification

Tasks & tickets
- Review warning/alarm history and check current status
- Acknowledge and clear open warnings and alarms

Raw data recording
- Set rules for triggering of raw vibration sensor data recording
- Recording can be triggered by a warning/alarm or time based

edgeConnect
- Transfer time stamped process data and information to higher level systems either on-premise or in the cloud
- Uses standardized interfaces like MQTT & OPC UA for on-premise connection
- Ready-to-go cloud connectors for easy integration

moneo | software license bundle **Package with all software licenses for a condition monitoring application, including 150 infopoints. Additional infopoints (up to a total of 5000) may be purchased separately using part number QMI001.**	**QM9102**	**$8,162.40**
Data Science Toolbox / **Smart Limit Watcher license.** **Requires QM9102 moneo | software bundle sold separately.**	**QM9103**	**$5,486.90**
moneo | infopoints license, priced per point. **Purchase additional infopoints up to 5000 total.**	**QMI001**	**$26.90**

CREATE A MONEO SYSTEM TO SUIT YOUR NEEDS

Connection technology

Selection Guide

Scan to learn more

Note: refer to ifm product datasheet for operating voltage range and max. current load data!

Technology

Select the right connector for your application!

EVC series black PUR rubber, Halogen-free, nickel-plated brass nut. Designed for industrial applications, esp. where cables contact oil/grease

EVT series orange PVC, SS316L nut. Designed F&B industry use, where cables contact water & plant washdown cleaning chemicals

EVF series grey MPPE, Halogen-free, SS316L grip nut. Designed F&B industry use, where cables contact water & plant washdown cleaning chemicals (avoid outdoor UV exposure)

EVM series black PUR rubber, Halogen-free, SS316L nut. Designed for harsh environments, ie. mobile machines, -40degC. Refrigeration, Outdoor UV exposure.

EVC D-Coded ethernet connectors Green PUR rubber, Halogen-free, nickel-plated brass nut. Designed for industrial applications, esp. where cables contact oil/grease

EVF D-Coded ethernet connectors grey MPPE, Halogen-free, SS316L grip nut. Designed F&B industry use, where cables contact water & plant washdown cleaning chemicals (avoid outdoor UV exposure)

L Coded connectors
2.5 mm² cable cross section for currents up to 16 amperes
EVC series black PUR rubber for industrial applications
EVF series grey MPPE for F&B washdown applications

CAN bus connectors PUR rubber
EVC, Halogen-free, SS316L nut. Designed for harsh environments, ie. mobile machines, -40degC. Refrigeration, Outdoor UV exposure.

ifm e shop registration

Connection Technology

CORRECT APPLICATION ENSURES IP RATING SUCCESS!

Ingress-resistant:
The innovative sealing concept provides the high protection ratings IP 67 / IP 68 / IP 69K.

Held in place:
The saw-tooth type vibration protection ensures that the nut does not become loose unintentionally in case of shock and vibration.

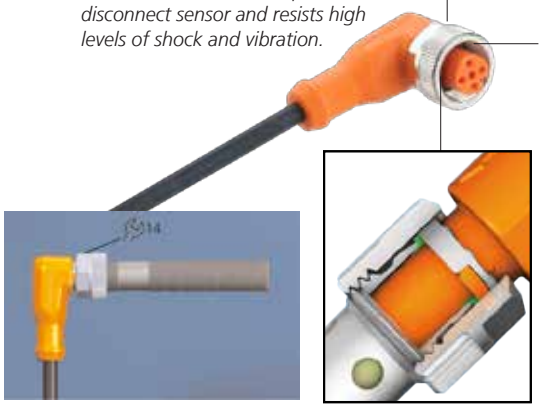
By hand:
Easy to install and remove manually.

Visible:
Versions in a transparent black housing for an optimum visibility of the LED even in bright lighting conditions.

Standardised:
The connection technology meets the M8 and M12 standard EN 61076.

Versatile:
Special versions adapted to your application.

"Lock-in-Place" coupling nut secures the cordset to a quick disconnect sensor and resists high levels of shock and vibration.



316 stainless steel sleeve with sawtooth contour maintains optimum sealing and prevents the cordset from detaching.

Special insert design acts as a mechanical end stop preventing possible damage to Viton o-ring from over tightening.

Problem
Traditional cordsets with transparent housings are hard to see.

Solution
ifm cordsets have high visibility LEDs with good contrast.

Tested to extremes.
The temperature shock test simulates CIP processes and verifies the ageing resistance.

An eye on the plant process.
Even in bright lighting conditions the LEDs are clearly visible in the transparent black version.

Easy mounting without using a tool.

Vibration protection with end stop.
The saw-tooth type vibration protection ensures that the nut does not become loose unintentionally in case of shock and vibration.

Connect the connector to the sensor; the arrow indicates the right position of the coding. To ensure the indicated protection rating, the coupling nut must be tightened with a tightening torque from 0.6 Nm (hand-tight) to 1.5 Nm (using a torque wrench).

For applications in harsh environments tighten the coupling nut by turning it one notch further with a key (width across flats 14) to increase shock and vibration resistance. For removal also use a key (width across flats 14).

For removal loosen the coupling nut and at the same time press the connector against the sensor.

Connection Technology

ANGLED M12 SOCKET, 4PIN, IP69K, 4 AMP (MAX)

	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price	EVM Outdoor	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE		Black, TPU	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L		SS 316 L	
2 m	EVC004	$33.60	EVT067	$38.50	EVF067	$47.80	EVM004	$42.60
5 m	EVC005	$39.20	EVT004	$44.10	EVF004	$48.60	EVM005	$49.90
10 m	EVC006	$48.20	EVT005	$54.20	EVF005	$60.00	EVM006	$59.20
15 m	EVC086	$68.90	EVT094	$61.10	EVF094	$74.70	EVM019	$68.60
20 m	EVC087	$79.80	EVT095	$71.70	EVF095	$85.40	-	-
25 m	EVC088	$85.20	EVT006	$84.60	EVF006	$94.00	EVM012	$92.70
40 m	-	-	EVT066	$115.50	-	-	-	-
50 m	EVC715	$142.20	-	-	EVF479	$164.00	EVM010	$149.30
60 m	-	-	EVT068	$156.40	-	-	-	-

STRAIGHT M12 SOCKET, 4PIN, IP69K, 4 AMP (MAX)

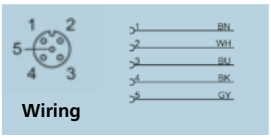
	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price	EVM Outdoor	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE		Black, TPU	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L		SS 316 L	
2 m	EVC001	$33.60	EVT064	$38.50	EVF064	$47.30	EVM001	$42.60
5 m	EVC002	$39.20	EVT001	$44.10	EVF001	$48.60	EVM002	$49.90
10 m	EVC003	$48.20	EVT002	$54.20	EVF002	$60.00	EVM003	$59.20
15 m	EVC082	$68.90	EVT092	$61.10	EVF092	$77.90	EVM018	$68.60
20 m	EVC083	$79.80	EVT093	$71.70	-	-	-	-
25 m	EVC084	$85.20	EVT003	$84.60	EVF003	$94.00	EVM014	$92.70
40 m	EVC759	$116.20	EVT418	$115.50	-	-	-	-
50 m	EVC710	$142.20	-	-	EVF484	$190.60	-	-
60 m	-	-	EVT343	$156.40	-	-	EVM065	$177.70
70 m	-	-	EVT438	$225.90	-	-	-	-

ANGLED M12 SOCKET, 5PIN, IP69K, 4 AMP (MAX)

	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price	EVM Outdoor	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE		Black, TPU	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L		SS 316 L	
2 m	EVC073	$36.10	EVT603	$41.50	-	-	EVM039	$44.80
5 m	EVC074	$44.50	EVT013	$49.30	EVF013	$55.70	EVM040	$55.10
10 m	EVC075	$61.10	EVT014	$65.80	EVF014	$74.40	EVM041	$73.20
15 m	EVC423	$68.90	EVT104	$82.00	-	-	-	-
25 m	-	-	EVT015	$115.30	EVF015	$130.20	-	-

Connection Technology

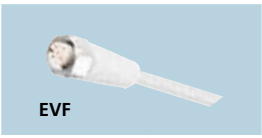
STRAIGHT M12 SOCKET, 5PIN, IP69K, 4 AMP (MAX)

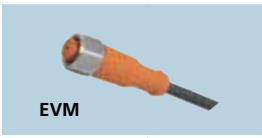


Wiring

EVC

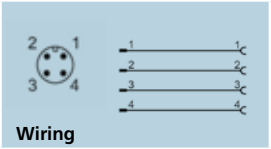
EVT


EVF


EVM

	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price	EVM Outdoor	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE		Black, TPU	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L		SS 316 L	
2 m	EVC070	$36.10	EVT235	$45.00	-	-	EVM036	$44.80
5 m	EVC071	$44.50	EVT010	$49.30	EVF010	$55.70	EVM037	$55.10
10 m	EVC072	$61.10	EVT011	$65.80	EVF011	$74.40	EVM038	$73.20
15 m	EVC197	$68.90	EVT419	$82.00	-	-	EVM083	$91.20
20 m	EVC198	$78.10	-	-	-	-	-	-
25 m	EVC199	$93.60	EVT012	$115.30	EVF012	$130.20	EVM112	$134.90
30 m	EVC561	$185.70	-	-	-	-	-	-
40 m	-	-	EVT420	$154.90	-	-	-	-
50 m	EVC562	$310.10	-	-	-	-	-	-
60 m	EVC591	$371.40	-	-	-	-	-	-

STRAIGHT M12 PLUG, STRAIGHT M12 PLUG, 4PIN, IP69K, 4 AMP (MAX)



Wiring

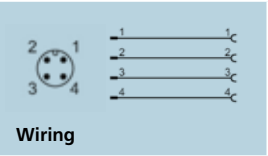
EVC

EVT

EVF

	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L	
1m	EVC556	$31.80	-	-	-	-
2 m	EVC076	$29.30	EVT071	$42.40	EVF071	$46.90
5 m	EVC077	$38.30	EVT072	$48.20	EVF072	$54.20
10 m	EVC078	$56.80	EVT073	$57.50	EVF073	$71.20
20 m	EVC177	$79.40	-	-	-	-
25 m	-	-	EVT350	$82.40	-	-

ANGLED M12 PLUG, STRAIGHT M12 PLUG, 4PIN, IP69K, 4 AMP (MAX)



Wiring

EVC

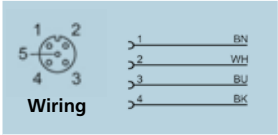
EVT

EVF

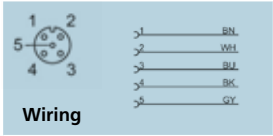
	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L	
2 m	EVC079	$29.30	EVT088	$42.40	EVF088	$47.60
5 m	EVC080	$38.30	EVT090	$48.20	EVF090	$54.20
10 m	EVC081	$56.80	EVT327	$54.20	EVF327	$59.00
15 m	EVC185	$61.10	-	-	EVF726	$64.60
20 m	EVC172	$79.80	-	-	EVF727	$71.00
25 m	EVCA05	$97.00	-	-	-	-

Connection Technology

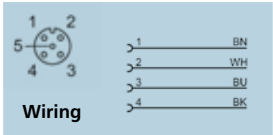
WIRABLE - INDUSTRIAL M12 SOCKETS & M12 PLUGS, 4PIN, IP69K, 4 AMP (MAX)

								
Wiring	EVC		EVC		EVC		EVC	
	EVC Industrial	Price	EVC Industrial	Price	EVC Industrial	Price	EVC Industrial	Price
Cable Material	Orange, PA		Orange, PA		Orange, PA		Orange, PA	
Nut Material	Ni Pl brass		Ni Pl brass		Ni Pl brass		Ni Pl brass	
-	EVC810	$35.30	EVC811	$35.30	EVC812	$35.30	EVC813	$35.30

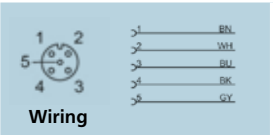
WIRABLE - INDUSTRIAL M12 SOCKETS & M12 PLUGS, 5PIN, IP69K, 4 AMP (MAX)

								
Wiring	EVC		EVC		EVC		EVC	
	EVC Industrial	Price	EVC Industrial	Price	EVC Industrial	Price	EVC Industrial	Price
Cable Material	Orange, PA		Orange, PA		Orange, PA		Orange, PA	
Nut Material	Ni Pl brass		Ni Pl brass		Ni Pl brass		Ni Pl brass	
-	EVC814	$37.90	EVC815	$37.90	EVC816	$37.90	EVC817	$37.90

WIRABLE - WASHDOWN M12 SOCKETS & M12 PLUGS, 4PIN, IP69K, 4 AMP (MAX)

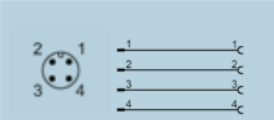
								
Wiring	EVF		EVF		EVF		EVF	
	EVF F&B	Price	EVF F&B	Price	EVF F&B	Price	EVF F&B	Price
Cable Material	Grey, PA		Grey, PA		Grey, PA		Grey, PA	
Nut Material	SS316L		SS316L		SS316L		SS316L	
-	EVF565	$53.10	EVF566	$53.10	EVF567	$53.10	EVF568	$53.10

WIRABLE - WASHDOWN M12 SOCKETS & M12 PLUGS, 5PIN, IP69K, 4 AMP (MAX)

								
Wiring	EVF		EVF		EVF		EVF	
	EVF F&B	Price	EVF F&B	Price	EVF F&B	Price	EVF F&B	Price
Cable Material	Grey, PA		Grey, PA		Grey, PA		Grey, PA	
Nut Material	SS316L		SS316L		SS316L		SS316L	
-	EVF569	$57.50	EVF570	$57.50	EVF571	$57.50	EVF572	$57.50

Connection Technology

JUMPER, STRAIGHT M12 SOCKET, STRAIGHT M12 PLUG, 4PIN, IP69K, 4 AMP (MAX)


Wiring

EVC

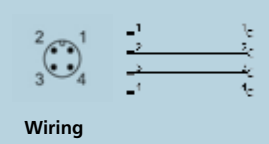
EVT

EVF

EVM

	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price	EVM Outdoor	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE		Black, TPU	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L		SS 316 L	
0.3 m	EVC010	$43.90	EVT040	$68.00	EVF040	$78.80	-	-
0.6 m	EVC011	$45.40	EVT041	$68.90	EVF041	$79.60	-	-
1 m	EVC012	$46.70	EVT042	$74.20	EVF042	$85.40	-	-
2 m	EVC013	$49.90	EVT043	$75.10	EVF043	$86.70	EVM089	$58.10
5 m	EVC014	$62.00	EVT044	$81.80	EVF044	$94.20	EVM090	$72.10
10 m	EVC108	$79.40	EVT045	$93.00	EVF045	$107.40	EVM109	$109.70
15 m	EVC117	$97.30	EVT109	$99.00	-	-	EVM110	$145.50
20 m	EVC118	$113.40	EVT496	$104.40	EVF663	$133.00	-	-
25 m	-	-	EVT359	$118.80	-	-	-	-

JUMPER, ANGLED M12 SOCKET, STRAIGHT M12 PLUG, 4PIN, IP69K, 4 AMP (MAX)


Wiring

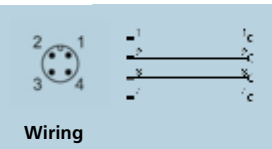
EVC

EVT

EVF

	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L	
0.3 m	EVC015	$43.90	EVT046	$68.00	EVF046	$78.80
0.6 m	EVC016	$45.40	EVT047	$68.90	EVF047	$79.60
1 m	EVC017	$46.30	EVT048	$74.20	EVF048	$85.40
2 m	EVC018	$49.90	EVT049	$75.10	EVF049	$86.70
3 m	EVC103	$51.20	EVT445	$77.00	EVF445	$87.10
5 m	EVC019	$61.50	EVT050	$81.80	EVF050	$94.20
10 m	EVC109	$79.40	EVT051	$93.00	EVF051	$109.30
15 m	EVC133	$96.00	EVT098	$99.00	-	-
20 m	EVC134	$113.40	EVT099	$108.90	-	-

JUMPER, STRAIGHT M12 SOCKET, ANGLED M12 PLUG, 4PIN, IP69K, 4 AMP (MAX)


Wiring

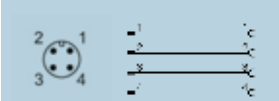
EVC

Cable Material	Black, TPU	
Nut Material	Ni Pl brass	
0.3 m	EVC025	$43.90
0.6 m	EVC026	$45.40
1 m	EVC027	$46.70
2 m	EVC028	$49.90
3 m	EVC140	$54.20
5 m	EVC029	$62.20
10 m	EVC342	$69.50
20 m	EVC175	$113.40

Other jumpers available on request:

Connection Technology

JUMPER · M12 / M12 · 4-POLE (1 MM2 FOR REDUCED VOLTAGE DROP)



Wiring

EVF

EVF

EVF

	EVF F&B	Price	EVF F&B	Price	EVF F&B	Price	EVF F&B	Price
Cable Material	Grey, MPPE		Grey, MPPE		Grey, MPPE		Grey, MPPE	
Nut Material	SS 316 L		SS 316 L		SS 316 L		SS 316 L	
0.25 m	EVF490	$89.70	EVF497	$89.70	-	-	-	-
0.5 m	EVF491	$90.40	EVF498	$90.40	-	-	-	-
1 m	EVF492	$97.50	EVF499	$97.50	-	-	-	-
2 m	EVF493	$99.80	EVF500	$99.80	EVF480	$50.60	EVF485	$50.60
5 m	EVF494	$107.80	EVF501	$107.80	EVF481	$58.10	EVF486	$58.10
10 m	EVF495	$122.40	EVF502	$122.40	EVF482	$71.40	EVF487	$71.40
20 m	EVF496	$144.00	EVF503	$144.00	EVF483	$94.00	EVF488	$94.00
50 m	-	-	-	-	EVF484	$190.60	EVF489	$190.60

JUMPER · M12 / M12 · 4-POLE (1 MM2 FOR REDUCED VOLTAGE DROP)

Wiring

EVC

EVC

EVC

	EVC Industrial	Price	EVC Industrial	Price	EVC Industrial	Price
Cable Material	Black, TPU		Black, TPU		Black, TPU	
Nut Material	Ni Pl brass		Ni Pl brass		Ni Pl brass	
0.25 m	EVC716	$46.00	EVC723	$46.00	-	-
0.5 m	EVC717	$47.10	EVC724	$47.10	-	-
1 m	EVC718	$48.60	EVC725	$48.60	-	-
2 m	EVC719	$53.10	EVC726	$53.10	EVC706	$37.00
5 m	EVC720	$65.20	EVC727	$65.20	EVC707	$43.00
10 m	EVC721	$80.50	EVC728	$80.50	EVC708	$54.00
15 m	-	-	-	-	-	-
20 m	EVC722	$102.40	EVC729	$102.40	EVC709	$88.00
50 m	-	-	-	-	EVC710	$142.20

Connection Technology

JUMPER, STRAIGHT M12 SOCKET, STRAIGHT M12 PLUG, 5PIN, IP69K, 4 AMP (MAX)

Wiring

EVC

EVT

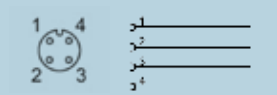
	EVC Industrial	Price	EVT F&B	Price
Cable Material	Black, TPU		Orange, PVC	
Nut Material	Ni Pl brass		SS 316 L	
0.6 m	EVC056	$64.80	EVT059	$72.10
1 m	EVC057	$65.60	EVT060	$73.20
2 m	EVC058	$69.50	EVT061	$74.20
5 m	EVC059	$80.50	EVT062	$75.30
10 m	EVC189	$98.80	EVT063	$89.90
15 m	EVC190	$115.50	-	-
20 m	EVC201	$134.70	-	-
25 m	EVC202	$171.10	-	-

M12 SOCKET, 8PIN, IP69K, 2 AMP (MAX)

Wiring

Cable Material	Black, TPU	Price	Black, TPU	Price	Black, PUR	Price
Nut Material	Ni Pl brass		Ni Pl brass		Ni Pl brass	
2 m	E11231	$78.80	E11950	$62.00	E12281	$88.20
5 m	E11232	$97.00	E11807	$94.20	E11230	$113.00
10 m	E12169	$99.40	E11311	$125.40	E12360	$156.20

WIRABLE - INDUSTRIAL M18 SOCKETS, 4PIN, IP68, 4 AMP (MAX)



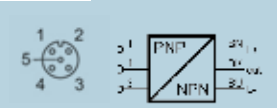
Wiring

E11

E11

Material	Black, PA	Price	Black, PA	Price
-	E10137	$26.30	E10013	$26.30

M12 SOCKET PNP/NPN INVERTER MODULE



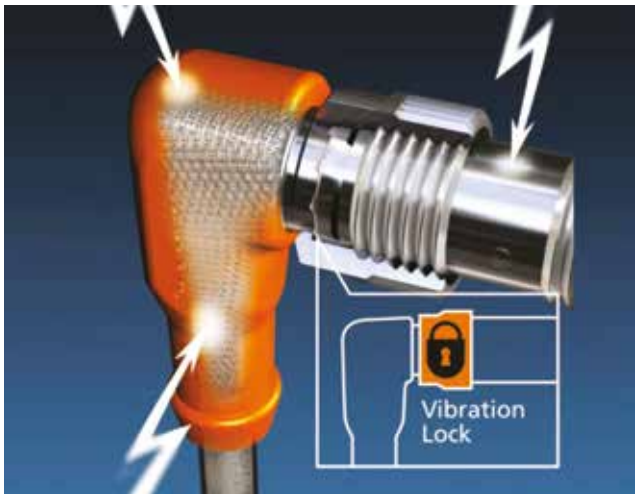
Wiring

	EVC Industrial	Price
Cable Material	Black, PUR	
Nut Material	Ni Pl brass	
2 m	EVC01E	$46.00
5 m	EVC05E	$79.80

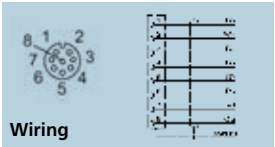
AC POWER 1/2 " SOCKET, 3PIN, IP67

Wiring

	E11 Industrial	Price
Cable Material	Black, PUR	
Nut Material	Ni Pl brass	
2 m	E12282	$33.80
5 m	E10210	$47.60

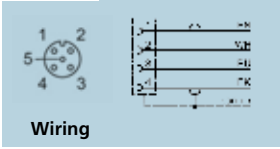


SCREENED (TO THE NUT) M12 SOCKET, 8PIN, IP69K, 2 AMP (MAX)



	EVC Industrial	Price
Cable Material	Black, TPU	
Nut Material	Ni Pl brass	
2 m	E12402	$85.00
5 m	E12403	$103.30
10 m	E12404	$132.50

SCREENED M12 SOCKET, 4PIN, IP69K, 4 AMP (MAX)



(Screened to the nut)

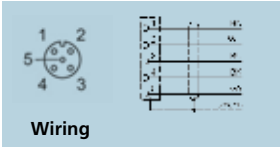
(Not screened to the nut)

(Screened to the nut)

(Screened to the nut)

	EVC Industrial	Price	EVT F&B	Price	EVC Industrial	Price	EVT F&B	Price
Cable Material	Black, TPU		Orange, PVC		Black, TPU		Orange, PVC	
Nut Material	Ni Pl brass		SS 316 L		Ni Pl brass		SS 316 L	
2 m	-	-	EVT385	$38.30	EVC538	$41.70	EVT381	$38.30
5 m	EVC542	$49.90	EVT386	$45.60	EVC539	$49.90	EVT382	$45.60
10 m	EVC543	$63.50	EVT387	$58.70	EVC540	$63.50	EVT383	$58.70
15m	EVC698	$75.70	-	-	-	-	EVT416	$75.50
20 m	EVC857	$110.20	EVT441	$88.40	-	-	-	-
25 m	EVC767	$117.50	EVT388	$99.20	-	-	EVT384	$99.20
35 m	-	-	EVT442	$130.00	-	-	-	-
50 m	-	-	EVT443	$170.80	-	-	-	-
70 m	-	-	-	-	-	-	EVT438	$225.90

SCREENED M12 SOCKET, 5PIN, IP69K, 4 AMP (MAX)



(Screened to the nut)

(Screened to the nut)

(Screened to the nut)

(Screened to the nut)

	EVC Industrial	Price			EVC Industrial	Price		
Cable Material	Black, TPU				Black, TPU			
Nut Material	Ni Pl brass				Ni Pl brass			
2 m	EVC547	$43.50	EVT393	$44.80	EVC544	$44.30	EVT405	$49.10
5 m	EVC548	$54.90	EVT394	$51.00	EVC545	$54.90	EVT406	$55.30
10 m	EVC549	$74.00	EVT395	$70.10	EVC546	$74.00	EVT407	$74.00
15m	EVC563	$95.80	-	-	EVCA67	$95.80	EVT569	$89.30
25m	-	-	EVT396	$128.90	-	-	EVT408	$130.80

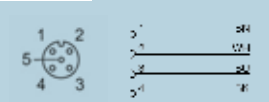
Connection Technology

M12 LED CABLES

Problem
Traditional cordsets with transparent housings are hard to see.

ifm Solution
ifm cordsets have high visibility LEDs with good contrast.

LED - M12 SOCKET, 4PIN, IP69K, 4 AMP (MAX)



Wiring

EVC

EVT

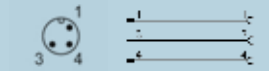
EVC

EVM

	EVC Industrial	Price	EVT F&B	Price	EVC Industrial	Price	EVM Outdoor	Price
Cable Material	Black, TPU		Orange, PVC		Black, TPU		Black, TPU	
Nut Material	Ni Pl brass		SS 316 L		Ni Pl brass		SS 316 L	
2 m	EVC007	$40.20	EVT069	$45.60	EVC644	$37.70	EVM007	$50.10
5 m	EVC008	$46.00	EVT007	$51.40	EVC645	$42.60	EVM008	$56.40
10 m	EVC009	$55.70	EVT008	$61.10	EVC646	$51.90	EVM009	$66.70
20 m	EVC130	$74.70	EVT097	$77.50	-	-	-	-
25 m	EVC091	$92.30	EVT009	$93.40	-	-	EVM011	$99.80

(Note: Up to 70m)

LED - M8 SOCKET, 3PIN, IP69K, 3 AMP (MAX)



Wiring

EVC

EVT

EVF

	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L	
5 m	EVC148	$46.00	EVT131	$60.90	EVF127	$48.60
10 m	-	-	EVT132	$72.30	EVF128	$57.70
25 m	-	-	EVT133	$100.90	EVF129	$87.10

LED - M12 JUMPER CABLE WITH VALVE PLUG (TYPE A, B, C)

EVC

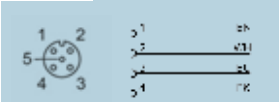
EVC

EVC

	M12 A type	Price	M12 B type	Price	M12 C type	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE	
0.3 m	E11416	$48.40	E11421	$48.40	E11426	$54.20
0.6 m	E11417	$49.50	E11422	$49.50	E11427	$55.90
1 m	E11418	$51.40	E11423	$52.70	E11428	$57.00
2 m	E11419	$54.90	E11424	$54.90	E11429	$61.30
5 m	E11420	$67.30	E11425	$67.30	E11430	$72.30

Connection Technology

EX RATED SOCKETS FOR HAZARDOUS AREAS

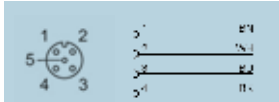

Wiring

EVC

EVT

	EVC Industrial	Price	EVT F&B	Price
Cable Material	Blue, PUR		Blue, PUR	
Nut Material	Ni Pl brass		Ni Pl brass	
2 m	ENC01A	$34.90	ENC04A	$34.90
5 m	ENC02A	$47.60	ENC05A	$47.60
10 m	ENC03A	$73.60	ENC06A	$73.60

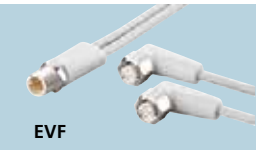
JUMPER 1 X M12 PLUG, 2 X M12 SOCKET


Wiring

EVC

EVC

EVF


EVF

	EVC Industrial	Price	EVC Industrial	Price	EVF F&B	Price	EVF F&B	Price
Cable Material	Black, TPU		Black, TPU		Grey, MPPE		Grey, MPPE	
Nut Material	Ni Pl brass		Ni Pl brass		SS 316 L		SS 316 L	
1 m	EVC431	$66.50	EVC434	$66.50	EVF329	$100.10	EVF332	$100.10
2 m	EVC432	$69.30	EVC435	$69.30	EVF330	$103.10	-	-
5 m	EVC433	$78.50	EVC436	$78.50	EVF331	$113.20	-	-

Note: For 8-pole sockets the core colours are not standardised. Refer to the ifm product datasheet.

JUMPER, ANGLED M12 SOCKET, STRAIGHT M8 PLUG, 3PIN

Wiring

EVT

	EVT F&B	Price
Cable Material	Orange, PVC	
Nut Material	SS 316 L	
0.6 m	EVT266	$65.60
1 m	EVT267	$66.10
2 m	EVT268	$68.20
5 m	EVT269	$73.80

JUMPER, STRAIGHT M8 SOCKET, STRAIGHT M12 PLUG, 3PIN

Wiring

EVT

	EVT F&B	Price
Cable Material	Orange, PVC	
Nut Material	SS 316 L	
0.3 m	EVT236	$65.40
0.6 m	EVT237	$65.60
1 m	EVT238	$66.10
2 m	EVT239	$68.20
5 m	EVT240	$73.80

Connection Technology

WIRABLE - INDUSTRIAL M8 SOCKETS & M8 PLUGS, 3PIN, IP68, 4 AMP (MAX)

Note: Cable sheath 3.0…5.0 mm range

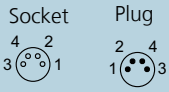
Wiring

E11

E11

	EVC Industrial	Price	EVC Industrial	Price
Cable Material	Black, PA		Black, PA	
Nut Material	Ni Pl brass		Ni Pl brass	
-	E11552	$28.60	E11550	$28.60

WIRABLE - INDUSTRIAL M8 SOCKETS & M8 PLUGS, 4PIN, IP68, 4 AMP (MAX)



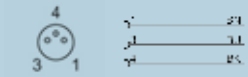
Wiring

E11

E11

	EVC Industrial	Price	EVC Industrial	Price
Cable Material	Black, PA		Black, PA	
Nut Material	Ni Pl brass		Ni Pl brass	
-	E11553	$27.30	E11551	$27.30

STRAIGHT M8 SOCKET, 3PIN, IP69K, 3 AMP (MAX)



Wiring

EVC

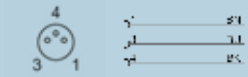
EVT

EVF

EVM

	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price	EVM Outdoor	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE		Black, TPU	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L		SS 316 L	
2 m	EVC141	$33.60	EVT122	$38.30	EVF122	$37.40	EVM020	$43.90
5 m	EVC142	$39.20	EVT123	$49.50	EVF123	$48.60	EVM021	$50.10
10 m	EVC143	$48.20	EVT124	$58.70	EVF124	$57.70	EVM022	$60.50
15 m	-	-	EVT272	$68.20	-	-	EVM023	$76.20
20 m	EVC501	$67.80	-	-	-	-	-	-
25 m	-	-	EVT125	$89.30	EVF125	$87.10	-	-
45 m	EVC502	$113.00	-	-	-	-	-	-
50 m	-	-	EVT214	$132.30	-	-	-	-

ANGLED M8 SOCKET, 3PIN, IP69K, 3 AMP (MAX)



Wiring

EVC

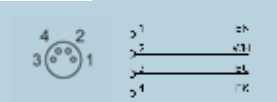
EVT

EVF

	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L	
2 m	EVC144	$33.60	EVT126	$38.30	EVF126	$37.40
5 m	EVC145	$39.20	EVT127	$49.50	EVF127	$48.60
10 m	EVC146	$48.20	EVT128	$58.70	EVF128	$57.70
25 m	-	-	EVT129	$89.30	EVF129	$87.10
30 m	-	-	EVT413	$100.90	-	-

Connection Technology

STRAIGHT M8 SOCKET, 4PIN, IP69K, 3 AMP (MAX)


Wiring

EVC

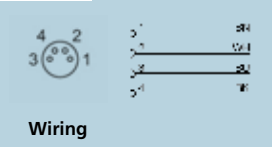
EVT

EVF

EVM

	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price	EVM Outdoor	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE		Black, TPU	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L		SS 316 L	
2 m	EVC150	$35.30	EVT134	$39.40	EVF134	$38.50	EVM028	$45.40
5 m	EVC151	$41.30	EVT135	$46.70	EVF135	$45.60	EVM029	$51.90
10 m	EVC152	$51.00	EVT136	$56.40	EVF136	$55.30	EVM030	$61.80
15 m	EVC387	$60.00	EVT274	EVT274	EVF274	$63.50	EVM031	$78.80
20 m	-	-	-	-	EVF646	$72.70	-	-
25 m	-	-	EVT137	$86.70	EVF137	$85.20	-	-
40 m	EVC424	$110.20	-	-	-	-	-	-
50 m	EVCA50	$123.90	-	-	-	-	-	-

ANGLED M8 SOCKET, 4PIN, IP69K, 3 AMP (MAX)


Wiring

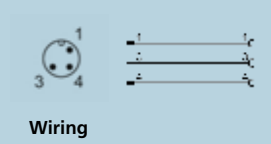
EVC

EVT

EVF

	EVC Industrial	Price	EVT F&B	Price	EVF F&B	Price
Cable Material	Black, TPU		Orange, PVC		Grey, MPPE	
Nut Material	Ni Pl brass		SS 316 L		SS 316 L	
2 m	EVC153	$35.30	EVT138	$39.40	EVF138	$38.50
5 m	EVC154	$41.30	EVT139	$46.70	EVF139	$45.60
10 m	EVC155	$51.00	EVT140	$56.40	EVF140	$55.30
15 m	-	-	EVT275	$74.40	-	-
25 m	-	-	EVT141	$86.70	EVF141	$85.20

JUMPER, STRAIGHT M8 SOCKET, STRAIGHT M8 PLUG, 3PIN, IP69K, 3 AMP (MAX)


Wiring

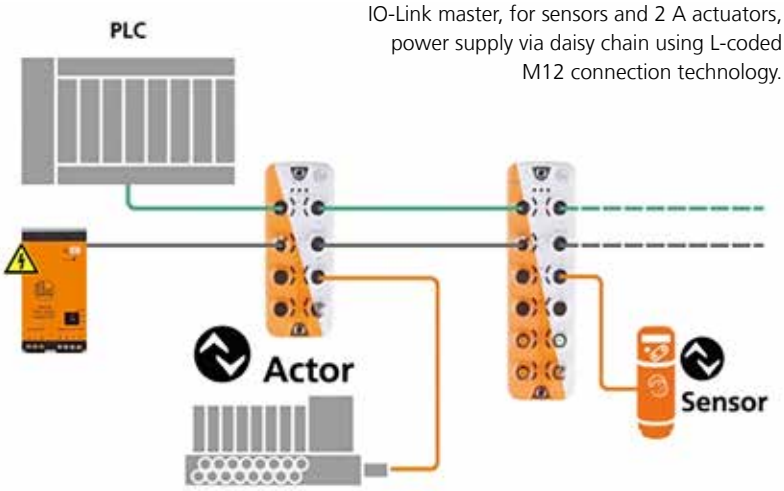
EVC

EVT

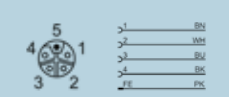
	EVC Industrial	Price	EVT F&B	Price
Cable Material	Black, TPU		Orange, PVC	
Nut Material	Ni Pl brass		SS 316 L	
0.3 m	EVC265	$43.20	EVT142	$66.70
0.6 m	EVC266	$44.50	EVT143	$68.00
1 m	EVC267	$46.70	EVT144	$74.00
2 m	EVC268	$49.90	EVT145	$74.90
5 m	EVC269	$62.00	EVT146	$81.30
10 m	EVC467	$74.40	EVT147	$92.30
15 m	EVC518	$89.70	-	-

Connection Technology

PerformanceLine
IO-Link master, for sensors and 2 A actuators, power supply via daisy chain using L-coded M12 connection technology.



M12 L-CODED EVC SERIES - INDUSTRIAL



Wiring

EVCA

EVCA

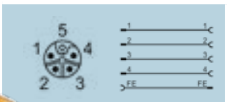
EVCA

EVCA

	EVCA Industrial	Price	EVCA Industrial	Price		EVCA Industrial	Price	EVCA Industrial	Price
Cable Material	Grey, TPU		Grey, TPU		Cable	Grey, TPU		Grey, TPU	
Nut Material	Ni Pl brass		Ni Pl brass		Nut	Ni Pl brass		Ni Pl brass	
2 m	EVCA15	$96.00	EVCA20	$96.00	0.25 m	EVCA25	$131.30	EVCA32	$129.10
5 m	EVCA16	$138.10	EVCA21	$138.10	0.5 m	EVCA26	$135.80	EVCA33	$135.80
10 m	EVCA17	$205.70	EVCA22	$205.70	1 m	EVCA27	$145.00	EVCA34	$145.00
20 m	EVCA18	$347.90	EVCA23	$347.90	2 m	EVCA28	$159.00	EVCA35	$159.00
50 m	EVCA19	$735.00	EVCA24	$735.00	5 m	EVCA29	$196.90	EVCA36	$196.90
					10 m	EVCA30	$243.60	EVCA37	$243.60
					20 m	EVCA31	$360.80	EVCA38	$360.80

M12 L-CODED EVF SERIES - F&B

NEW PRODUCT



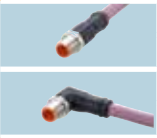
Wiring

Cable Length (m)	EVF	Price	EVF	Price	EVF	Price	EVF	Price	EVF	Price
0.25 m	-	-	-	-	EVF621	$156.20	EVF628	$156.20	EVF637	$156.20
0.5 m	-	-	-	-	EVF622	$160.50	EVF629	$160.50	EVF638	$160.50
1 m		-	-	-	EVF623	$170.00	EVF630	$170.00	EVF639	$170.00
2 m	EVF611	$112.30	EVF616	$112.30	EVF624	$184.20	EVF631	$184.20	EVF640	$184.20
5 m	EVF612	$153.80	EVF617	$153.80	EVF625	$220.80	EVF632	$220.80	EVF641	$220.80
10 m	EVF613	$220.80	EVF618	$220.80	EVF626	$266.80	EVF633	$266.80	EVF642	$266.80
20 m	EVF614	$361.70	EVF619	$361.70	EVF627	$381.90	EVF634	$381.90	EVF643	$381.90
50 m	EVF615	$741.30	EVF620	$741.30	-	-	-	-	-	-

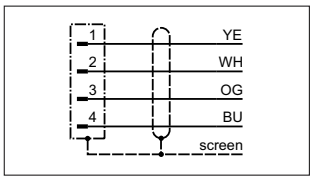
Connection Technology

CONTROL CABLES

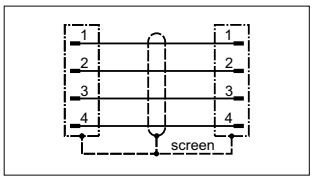
Type	Description	Order no	Price
M12 cable plug · 4 poles · straight			
	2.0 m	EVC893	$32.70
	5.0 m	EVC894	$63.90
	10.0 m	EVC895	$115.30
	20.0 m	EVC896	$218.60
	50.0 m	EVC897	$529.10
M12 cable plug · 4 poles · angled			
	2.0 m	EVC898	$32.70
	5.0 m	EVC899	$63.90
	10.0 m	EVC900	$115.30
	20.0 m	EVC901	$218.60
	50.0 m	EVC902	$529.10
M12 connection cable · 4 poles · straight-straight			
	0.25 m	EVC903	$36.10
	0.5 m	EVC904	$38.30
	1.0 m	EVC905	$43.70
	2.0 m	EVC906	$54.20
	5.0 m	EVC907	$85.20
	10.0 m	EVC908	$137.10
	20.0 m	EVC909	$240.10
M12 cable plug · 4 poles · straight-angled			
	0.25 m	EVC910	$36.10
	0.5 m	EVC911	$38.30
	1.0 m	EVC912	$43.70
	2.0 m	EVC913	$54.20
	5.0 m	EVC914	$85.20
	10.0 m	EVC915	$137.10
	20.0 m	EVC916	$240.10
M12 connection cable · 4 poles · angled-angled			
	0.25 m	EVC917	$36.10
	0.5 m	EVC918	$38.30
	1.0 m	EVC919	$43.70
	2.0 m	EVC920	$54.20
	5.0 m	EVC921	$85.20
	10.0 m	EVC922	$137.10
	20.0 m	EVC923	$240.10

Type	Description	Order no	Price
Connection cable M12 connector			
	2.0 m	EVC943	$77.00
	5.0 m	EVC944	$156.20
	2.0 m	EVC945	$77.00
	5.0 m	EVC946	$156.20
Connection cable M12 socket			
	2.0 m	EVC939	$80.50
	5.0 m	EVC940	$159.70
	2.0 m	EVC941	$80.50
	5.0 m	EVC942	$159.70
Connection cable with terminating resistor 120 Ω, M12 socket			
	2.0 m	EVC957	$93.00
	5.0 m	EVC958	$172.10
	2.0 m	EVC959	$93.00
	5.0 m	EVC960	$184.20
	10.0 m	EVC961	$274.60
Connection cable M12 connector / M12 socket			
	1.0 m	EVC947	$93.00
	2.0 m	EVC948	$112.30
	5.0 m	EVC949	$190.60
Connection cable M12 connector / M12 socket			
	1.0 m	EVC950	$93.00
	2.0 m	EVC951	$112.30
	5.0 m	EVC952	$190.60
Connection cable M12 connector / M12 socket			
	1.0 m	EVC953	$93.00
	2.0 m	EVC954	$112.30
	5.0 m	EVC955	$190.60
	10.0 m	EVC956	$278.60
Connection cable with terminating resistor 120 Ω, M12 connector / M12 socket			
	2.0 m	EVC962	$124.80
	5.0 m	EVC963	$202.70
	10.0 m	EVC964	$290.70
Connection cable with terminating resistor 120 Ω, M12 connector / M12 socket			
	2.0 m	EVC965	$124.80
	5.0 m	EVC966	$202.70
	10.0 m	EVC967	$290.70

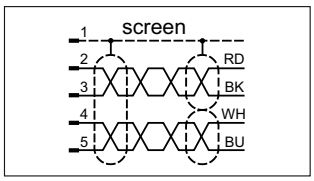
Wiring diagram



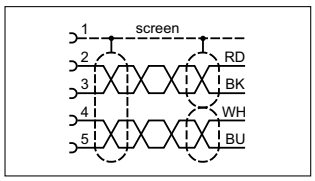
Example EVC898



Example EVC917



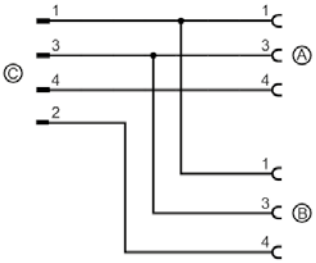
Example EVC943

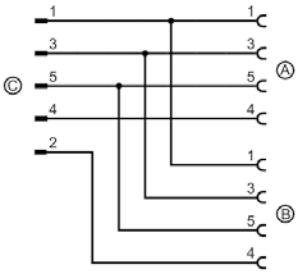


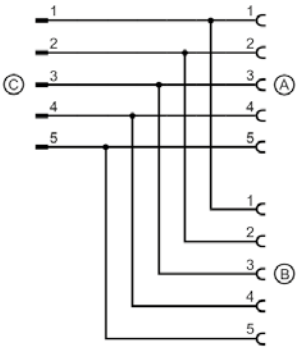
Example EVC939

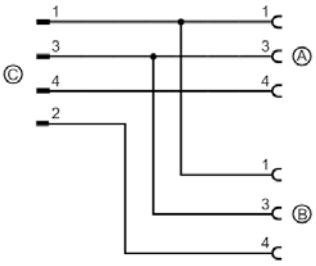
Connection Technology

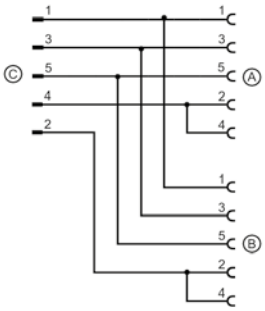
Wiring Diagrams







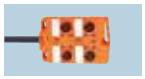
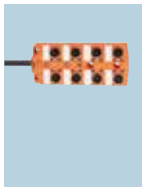




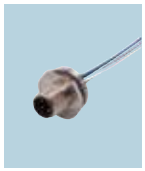
Type	Description	Order no.	Price
Connector: 2 x M12 Sockets, 1x M12 Plug			
	Housing: PA orange; Sealing: FKM, brass, nickel-plated	**EBC113**	**$43.20**
	Housing: PA orange; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	**EBT006**	**$48.20**
	Housing: PA grey; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	**EBF006**	**$49.30**
Connector: 2 x M12 Sockets, 1x M12 Plug			
	Housing: PA orange; Sealing: FKM, brass, nickel-plated	**EBC115**	**$43.20**
	Housing: PA grey; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	**EBF008**	**$49.30**
Connector: 2 x M12 Sockets, 1x M12 Plug			
	Housing: PA orange; Sealing: FKM, brass, nickel-plated	**EBC116**	**$43.20**
	Housing: PA orange; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	**EBT009**	**$48.20**
	Housing: PA grey; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	**EBF009**	**$49.30**
Connector: 2 x M8 Sockets, 1x M12 Plug			
	Housing: PA orange; Sealing: FKM, brass, nickel-plated	**EBC112**	**$40.90**
	Housing: PA grey; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	**EBF012**	**$49.10**
	Housing: PA orange; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	**EBT012**	**$46.00**
Connector: 2 x M12 Sockets, 1x M12 Plug			
	Housing: PA orange; Sealing: FKM, brass, nickel-plated	**EBC114**	**$43.20**

Connection Technology

M12 PASSIVE SPLITTER BOX, IP68

Type	Ports	Signals on contact	LED	Output	Connection	Order no.	Price
	4	2 and 4	•	PNP	5 m	EBC016	$260.10
	4	2 and 4	•	PNP	10 m	EBC028	$326.40
	6	2 and 4	•	PNP	5 m	EBC020	$326.40
	6	2 and 4	•	PNP	10 m	EBC032	$445.00
	8	2 and 4	8	PNP	M12	EBC138	$181.00
	8	2 and 4	–	–	5 m	EBC022	$336.50
	8	2 and 4	–	–	10 m	EBC034	$421.50
	8	2 and 4	•	PNP	5 m	EBC024	$367.10
	8	2 and 4	•	PNP	10 m	EBC035	$342.10
	16	2 and 4	•	PNP	10 m	EBC036	$450.40

PANEL WALL CONNECTORS

Type	Size	Pins	Length	Mounting Thread	Order no.	Price
M12 Plug, brass, nickel-plated						
	M12	4 Wire	120 mm	M20	E11295	$28.60
	M12	4 Wire	500 mm	M20	E11293	$28.60
	M12	5 Wire	500 mm	M16	E11588	$28.60
	M12	8 Wire	500 mm	PG9	E11194	$30.10
M12 Socket, brass, nickel-plated						
	M12	4 Wire	500 mm	PG9	E11067	$33.10
	M12	5 Wire	500 mm	M16	E12408	$24.50
	M12	8 Wire	500 mm	PG9	E11601	$51.00

WALL PASSAGE CONNECTORS

Type	Size	Pins	Length	Mounting Thread	Order no.	Price
M12 - M12 Plug, 5-wire						
	M12	5 Wire	Brass, nickel-plated		E73008	$42.60
	M12	5 Wire	Stainless steel		E73009	$55.70

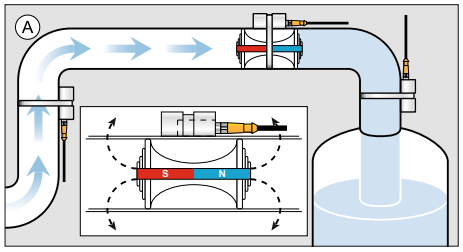
Magnetic Sensors

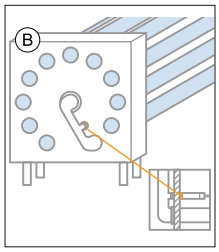
Selection Guide

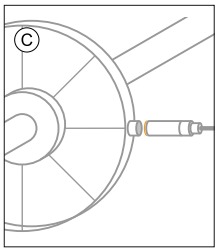
Scan to learn more

MAGNETIC SENSORS

- **Long sensing range even through non-magnetisable metals**
- **Temperature-stable and reproducible switch point**
- **High protection rating ideal for the food and beverage industry**
- **Wide operating temperature range**
- **Food-grade full-metal housing**







IP 67
IP 68
IP 69 K

GMR Technology

Vibration and shock resistant

Type x Length	Sensing range [mm]	Output function	Electrical design	Order no.	Price
4-pole					
M8 x 60	60	NO	DC, PNP	**ME5010**	**$163.10**
M8 x 60	60	NO	DC, PNP	**ME5011**	**$158.20**
M12 x 60	60	NO	DC, NPN	**MFS209**	**$143.10**
M12	60	NO	DC, PNP	**MFS211**	**$143.10**
M12	60	NO	DC, PNP	**MFT202**	**$174.50**
4-pole					
M18 x 60	70	NO	DC, PNP	**MGS204**	**$143.10**
M18	70	NO	DC, PNP	**MGT203**	**$174.50**

Accessories

Type	Description	Order no.	Price
	Damping element M3.0, barium ferrite. IATA-compliant pack of 5.	**E12707**	**$86.10**
	Damping element M5.0, barium ferrite. IATA-compliant pack of 5.	**E12709**	**$141.20**

Inductive sensors

- K1 sensors detect all metals at the same range
- IO-Link sensors are configurable in every way!

Long Range Inductive Sensors

Scan to learn more

M5 INDUCTIVE SENSORS

Size (mm)	Material	Range (mm)	Operating Voltage (V)	Output Function	Temp Range (°C)		Max. Freq'y (Hz)	Max. Load (mA)	Electrical Connection	Note	Order No.	Price
Industrial Applications, IP67												
M5, L=30	SS-316L	0.8f	10-36 DC	PNP, NO	-25	70	2,000	100	2m Cable		**IY5029**	**$179.00**
M5, L=30	SS-316L	0.8f	10-36 DC	NPN, NO	-25	70	2,000	100	2m Cable		**IY5034**	**$190.20**
M5, L=45	SS-316L	0.8f	10-36 DC	PNP, NO	-25	70	2,000	100	M8 3w		**IY5036**	**$191.90**

M8 INDUCTIVE SENSORS

Size (mm)	Material	Range (mm)	Operating Voltage (V)	Output Function	Temp Range (°C)		Max. Freq'y (Hz)	Max. Load (mA)	Electrical Connection	Note	Order No.	Price
Industrial Applications, IP67												
M8, L=30	Metal	2f	10-36 DC	PNP, NO	-25	70	800	100	M8		**IE5366**	**$145.20**
M8, L=40	Metal	3f	10-30 DC	PNP/NPN	0	60	800	100	M8		**IE5338**	**$128.70**
M8, L=40	Metal	3f	10-30 DC	PNP, NO	-40	85	2,000	100	M8	K1	**IES200**	**$123.90**
M8, L=50	Metal	2f	10-30 DC	PNP, NO	-25	70	1,300	100	M8		**IE5287**	**$167.00**
M8, L=50	SS-316L	2f	10-36 DC	PNP, NO	-25	70	100	100	M8	Coolant	**IEC201**	**$134.90**
M8, L=50	SS-316L	2f	10-36 DC	NPN, NO	-25	70	100	100	M8	Coolant	**IEC202**	**$134.90**
M8, L=50	Metal	2f	10-36 DC	PNP, NO	-25	70	1,300	300	M8		**IE5287**	**$167.00**
M12, L=50	Metal	2nf	10-36 DC	PNP, NO	-25	80	2,000	100	M8		**IE5295**	**$179.50**
M8, L=50	Metal	2f	10-36 DC	PNP, NC	-25	70	1,300	200	M8		**IE5319**	**$193.00**
M8, L=50	Metal	2f	10-36 DC	PNP, NO	0	100	1,000	100	M12		**IE5379**	**$156.40**
M8, L=55	SS-316L	2nf	10-36 DC	PNP, NO	-25	80	2,000	200	M12		**IE5295**	**$179.50**
M8, L=60	Metal	4nf	10-36 DC	PNP, NO	-25	70	1,000	100	M8		**IE5391**	**$139.00**
M8, L=62	Metal	2f	10-36 DC	PNP, NO	-25	70	1,000	250	M12		**IE5257**	**$163.10**
M8, l=62	Metal	4nf	10-36DC	PNP, NO	-25	70	300	200	M12		**IE5288**	**$163.10**
F&B Applications, IP69k												
M8, L=40	SS-316L	3f	10-30 DC	PNP, NO	-40	85	2,000	100	M8	K1	**IES200**	**$123.90**
M8, L=40	SS-316L	6nf	10-30 DC	PNP, NO	-40	85	2,000	100	M8	K1	**IES201**	**$123.90**

Inductive sensors

M12 INDUCTIVE SENSORS

Size (mm)	Material	Range (mm)	Operating Voltage (V)	Output Function	Temp Range (°C)		Max. Freq'y (Hz)	Max. Load (mA)	Electrical Connection	Note	Order No.	Price
Industrial Applications, IP67												
M12, L=40	Metal	4f	10-30 DC	PNP, NO	-40	85	700	100	2m Cable		**IFS256**	**$115.50**
M12, L=45	Metal	2f	10-30 DC	PNP, NO	-25	70	700	200	M12	Coolant	**IFC239**	**$131.50**
M12, L=45	Metal	4f	10-30 DC	PNP, NO	-25	70	700	100	M12		**IFS204**	**$113.20**
M12, L=45	Metal	2f	10-30 DC	PNP, NO	-25	80	1,500	100	M12		**IF5538**	**$142.20**
M12, L=50	Metal	7nf	10-36 DC	PNP, NO	-25	70	700	100	M12		**IFS205**	**$113.20**
M12, L=45	Metal	4f	10-30 DC	PNP, NC	-25	70	700	100	M12		**IFS206**	**$113.20**
M12, L=45	Metal	4f	10-30 DC	PNP, NO	-40	85	700	100	M12		**IFS244**	**$112.80**
M12, L=60	Metal	4f	10-36 DC	PNP, NO	-25	70	700	100	M12		**IFC229**	**$133.60**
M12, L=60	Metal	4f	10-60 DC	PNP, NO	-40	85	700	100	M12		**IFS240**	**$112.80**
M12, L=60	Metal	4f	10-30 DC	NPN, NO	-40	85	700	100	M12		**IFS242**	**$112.80**
M12, L=60	Metal	4f	10-30 DC	PNP, NC	-40	85	700	100	M12		**IFS248**	**$112.80**
M12, L=60	Metal	4f	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	**IFS304**	**$119.00**
M12, L=60	Metal	10nf	10-30 DC	PNP, NO	-40	85	2,000	100	M12		**IFS306**	**$119.00**
M12, L=65	Metal	8nf	10-30 DC	PNP, NO	-25	70	2,000	100	M12	Coolant	**IFC246**	**$118.80**
M12, L=65	Metal	3f	10-30 DC	PNP, NO	-25	70	2,000	100	M12	Weld	**IFW200**	**$127.40**
M12, L=73	Metal	4f	20-140 AC	NO	-25	80	25	200	M12		**IF0311**	**$227.90**
M12, L=72	PBT	4f	20-250 AC	NO	-25	80	25	200	2m Cable		**IF0003**	**$202.30**
M12, L=80	Metal	2f	10-30 DC	PNP, NO	-25	80	800	200	M12		**IF5580**	**$142.20**

Size (mm)	Material	Range (mm)	Operating Voltage (V)	Output Function	Temp Range (°C)		Max. Freq'y (Hz)	Max. Load (mA)	Electrical Connection	Note	Order No.	Price
F&B Wash-down Applications, IP69K												
M12, L=45	SS-316L	4f	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	**IFS297**	**$119.00**
M12, L=45	SS-316L	10nf	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	**IFS299**	**$119.00**
M12, L=45	SS-316L	4f	10-30 DC	PNP, NO	0	100	800	100	M12	FDA	**IFT203**	**$131.30**
M12, L=50	SS-316L	7nf	10-36 DC	PNP, NO	0	100	800	100	M12	FDA	**IFT200**	**$131.30**
M12, L=60	SS-316L	3f	10-36 DC	PNP, NO	-40	60	100	100	M12	3D,3G	**IF503A**	**$166.50**
M12, L=60	SS-316L	4f	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	**IFS304**	**$119.00**
M12, L=60	all SS-316L	3f	10-30 DC	PNP, NO	0	100	100	100	M12	FDA	**IFT240**	**$148.50**
M12, L=60	all SS-316L	3.6f	10-30 DC	PNP/NPN,NO/NC	0	100	100	100	M12	IO-Link	**IFT258**	**$149.30**
M12, L=70	SS-304	7nf	10-36 DC	PNP/NPN	-40	85	300	100	M12	Mobile	**IFM204**	**$118.80**
M12, L=70	SS-304	4f	10-60 DC	PNP, NO	-40	85	400	200	M12	Mobile	**IFM205**	**$135.10**
M12, L=70	SS-304	7nf	10-60 DC	PNP, NO	-40	85	300	200	M12	Mobile	**IFM206**	**$135.10**
M12, L=70	SS-316L	7nf	10-30 DC	PNP/NPN, NO	0	100	700	100	M12	FDA	**IFT202**	**$148.30**
M12, L=70	SS-316L	4f	10-30 DC	PNP/NPN, NO	0	100	500	100	M12	FDA	**IFT205**	**$148.30**
M12, L=70	SS-316L	4f	10-36 DC	PNP, NO	0	100	700	100	M12	FDA	**IFT216**	**$146.70**

Accessories

Type	Description	Order no.	Price
	Angle bracket for type M12, stainless steel	**E10735**	**$6.70**

Inductive sensors

M18 INDUCTIVE SENSORS

Size (mm)	Material	Range (mm)	Operating Voltage (V)	Output Function	Temp Range (°C)		Max. Freq'y (Hz)	Max. Load (mA)	Electrical Connection	Note	Order No.	Price
Industrial Applications, IP67												
M18, L=45	Metal	8f	10-30 DC	PNP, NO	-25	70	400	100	M12		**IGS204**	**$113.20**
M18, L=45	Metal	8f	10-30 DC	PNP, NO	-40	85	400	100	M12		**IGS236**	**$126.10**
M18, L=45	Metal	12nf	10-30 DC	PNP, NO	-40	85	300	100	M12		**IGS237**	**$126.10**
M18, L=45	Metal	8f	10-30 DC	PNP, NC	-40	85	400	100	M12		**IGS252**	**$126.10**
M18, L=45	Metal	8f	10-30 DC	PNP, NC	-25	70	400	100	M12		**IGS206**	**$113.20**
M18, L=50	Metal	12nf	10-30 DC	PNP, NO	-25	70	300	100	M12		**IGS205**	**$113.20**
M18, L=60	Metal	12nf	10-30 DC	PNP/NPN, NO	-40	85	300	100	M12	IO-Link	**IG6616**	**$144.80**
M18, L=60	Metal	8f	10-30 DC	PNP, NO	-40	85	400	100	M12		**IGS232**	**$126.10**
M18, L=60	Metal	12nf	10-30 DC	PNP, NO	-40	85	300	100	M12		**IGS233**	**$126.10**
M18, L=60	Metal	8f	10-30 DC	NPN, NO	-40	85	400	100	M12		**IGS234**	**$126.10**
M18, L=60	Metal	12nf	10-30 DC	NPN, NO	-40	85	300	100	M12		**IGS235**	**$126.10**
M18, L=60	Metal	8f	10-30 DC	PNP, NC	-40	85	400	100	M12		**IGS240**	**$126.10**
M18, L=60	Metal	7.5f	10-30 DC	PNP/NPN, NO	-40	85	100	100	M12	IO-Link	**IGC260**	**$160.90**
M18, L=65	Metal	5f	10-30 DC	PNP, NO	-25	70	2,000	100	M12	Coolant	**IGC232**	**$154.50**
M18, L=65	Metal	12nf	10-30 DC	PNP, NO	-25	70	2,000	100	M12	Coolant	**IGC233**	**$154.50**
M18, L=70	Metal	8f	10-36 DC	PNP/NPN, NO/NC	-25	70	400	100	M12		**IG5953**	**$148.00**
M18, L=70	Metal	8f	10-30 DC	PNP/NPN, NO	-25	70	400	100	M12		**IGS208**	**$127.20**
M18, L=70	Metal	12nf	10-30 DC	PNP, NO	-25	70	300	100	M12		**IGS213**	**$117.10**
M18, L=70	Metal	8f	10-30 DC	PNP, NO	-25	70	400	100	M12		**IGS212**	**$117.10**
M18, L=70	Metal	12nf	10-30 DC	PNP, NO	-25	80	300	200	M12		**IG5841**	**$177.30**
M18, L=72	Metal	12nf	10-36 DC	PNP/NPN, NO/NC	-25	70	250	100	M12		**IG5954**	**$148.00**
M18, L=77	Metal	8nf	10-36 DC	PNP, NO	0	180	400	150	5m Cable	HIGH TEMP	**IG6119**	**$537.70**
M18, L=80	PBT	5f	20-250AC/DC	NO	-25	80	50	100	2m Cable		**IG0005**	**$210.40**
M18, L=80	Metal	5f	20-250AC/DC	NO	-25	80	50	100	2m Cable		**IG0011**	**$217.80**
M18, L=80	PBT	5f	20-250AC/DC	NC	-25	80	50	100	10m Cable		**IG0097**	**$227.40**
M18, L=80	PBT	8f	10-55 DC	PNP/NPN, NO	-25	80	300	400	2m Cable		**IG5533**	**$125.90**
M18, L=80	Metal	8nf	10-55 DC	PNP/NPN, NO	-25	80	300	400	2m Cable		**IG5596**	**$131.90**
M18, L=80	Metal	8nf	10-30 DC	PNP, Complmtry	-25	80	300	200	M12		**IG5842**	**$140.30**

Accessories

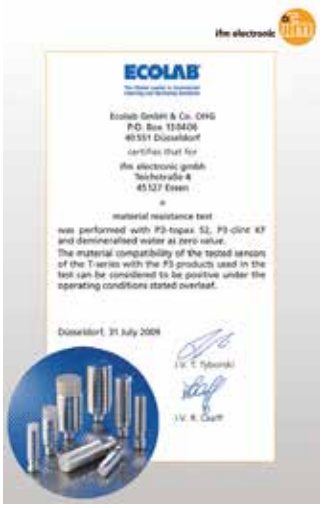
Type	Description	Order no.	Price
	Angle bracket for type M18, stainless steel	**E10736**	**$7.50**

Inductive sensors

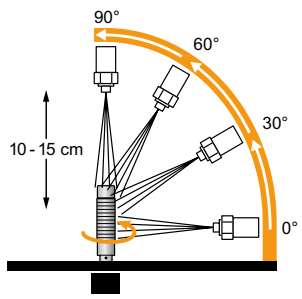
M18 INDUCTIVE SENSORS

Size (mm)	Material	Range (mm)	Operating Voltage (V)	Output Function	Temp Range (°C)		Max. Freq'y (Hz)	Max. Load (mA)	Electrical Connection	Note	Order No.	Price
F&B Wash-down Applications, IP69K												
M18, L=45	SS-316L	8f	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	**IGS287**	**$134.10**
M18, L=45	all SS-316L	8f	10-30 DC	PNP, NO	0	100	100	100	M12	FDA	**IGT258**	**$164.80**
M18, L=45	all SS-316L	10qf	10-30 DC	PNP, NO	0	100	200	100	M12	FDA	**IGT203**	**$145.00**
M18, L=50	SS-316L	12nf	10-36 DC	PNP, NO	0	100	300	100	M12	FDA	**IGT201**	**$145.00**
M18, L=50	SS-316L	12nf	10-36 DC	PNP, NO	0	100	300	100	M12	FDA	**IGT200**	**$145.00**
M18, L=57	SS-316L	8f	10-36 DC	PNP, NO	0	100	600	100	6m Cable	FDA	**IGT206**	**$166.30**
M18, L=60	all SS-316L	8f	10-30 DC	PNP, NC	-40	85	2,000	100	M12	K1	**IGS306**	**$119.00**
M18, L=60	SS-316L	8f	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	**IGS290**	**$134.10**
M18, L=60	SS-316L	15nf	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	**IGS292**	**$134.10**
M18, L=60	SS-316L	8f	10-30 DC	PNP, Complmtry	-40	85	2,000	100	M12	K1	**IGS300**	**$145.70**
M18, L=60	all SS-316L	7.5f	10-30 DC	PNP/NPN, NO/NC	0	100	100	100	M12	IO-Link	**IGT260**	**$160.90**
M18, L=70	SS-316L	5f	10-36 DC	PNP, NO	-40	60	100	100	M12	3D,3G	**IG510A**	**$166.50**
M18, L=70	SS-304	8f	10-36 DC	PNP/NPN, NO	-40	85	200	100	M12	Mobile	**IGM200**	**$118.80**
M18, L=70	SS-304	12nf	10-36 DC	PNP/NPN, NO	-40	85	200	100	M12	Mobile	**IGM201**	**$118.80**
M18, L=70	SS-304	8f	10-60 DC	PNP, NO	-40	85	200	200	M12	Mobile	**IGM204**	**$135.10**
M18, L=70	SS-304	12nf	10-60 DC	PNP, NO	-40	85	200	200	M12	Mobile	**IGM205**	**$135.10**
M18, L=70	SS-316L	5f	20-140AC/DC	NO	0	100	25	80	1/2"		**IGT002**	**$186.80**
M18, L=70	SS-316L	12nf	10-30 DC	PNP/NPN, NO	0	100	300	100	M12	FDA	**IGT202**	**$164.20**
M18, L=70	SS-316L	8f	10-36 DC	PNP/NPN, NO	0	100	400	100	M12	FDA	**IGT205**	**$164.20**
M18, L=70	SS-316L	5f	10-36 DC	PNP, NO	0	100	100	100	M12	FDA	**IGT247**	**$164.80**
M18, L=70	all SS-316L	12nf	10-36 DC	PNP, NO	0	100	500	100	M12	FDA	**IGT249**	**$192.40**
M18, L=81	SS-316L	8nf	20-250AC/DC	NO	-25	80	25	250	M18		**IG0303**	**$262.30**
M18, L=81	SS-316L	12nf	10-30 DC	PNP/NPN, NO	0	100	300	100	10m Cable	FDA	**IGT213**	**$182.90**

F&B WASHDOWN SENSOR APPROVALS

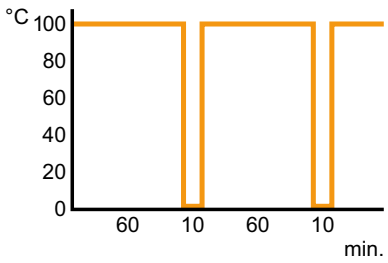


High-pressure cleaning test IP 69K:



Fine jets of water is sprayed with 100 bar from a distance of 10 to 15 cm. The hot water at 80 °C is sprayed in cycles of 30 seconds.

Temperature shock test:



The products are subjected to temperature fluctuations from 0 to 100 °C in short intervals.

Inductive sensors

M30 INDUCTIVE SENSORS

Size (mm)	Material	Range (mm)	Operating Voltage (V)	Output Function	Temp Range (°C)		Max. Freq'y (Hz)	Max. Load (mA)	Electrical Connection	Note	Order No.	Price
Industrial Applications, IP67												
M30, L=60	Metal	15f	10-30 DC	PNP, NO	-40	85	100	100	M12		**IIS226**	**$142.20**
M30, L=60	Metal	22nf	10-30 DC	PNP, NO	-40	85	100	100	M12		**IIS227**	**$142.20**
M30, L=65	Metal	22nf	10-30 DC	PNP, NO	-40	70	2,000	100	M12		**IIC219**	**$157.90**
M30, L=70	Metal	15f	10-36 DC	PNP/NPN, NO	-25	70	100	100	M12		**IIS206**	**$159.00**
M30, L=70	Metal	12f	10-36 DC	PNP/NPN, NO	-40	85	100	100	M12		**II5920**	**$152.30**
M30, L=70	Metal	22nf	10-36 DC	PNP/NPN, NO	-25	70	200	100	M12		**II5861**	**$158.80**
M30, L=72	Metal	15f	10-36 DC	PNP/NPN, NO/NC	-25	70	200	100	M12		**II5860**	**$158.80**
M30, L=75	Metal	15nf	10-36 DC	PNP, NO	-40	70	100	250	M12		**II5910**	**$145.90**
M30, L=81	PVC	10f	20-250AC/DC	NC	-25	80	50	250	M12	2m cable	**II0094**	**$222.50**
M30, L=81	Metal	10f	20-250AC/DC	NO	-25	80	50	250	M12	2m cable	**II0011**	**$222.50**
M30, L=81	PVC	10f	20-250AC/DC	NO	-25	80	50	250	M12	2m cable	**II0005**	**$216.50**
M30, L=81	PVC	15nf	20-250AC/DC	NO	-25	80	50	250	M12	2m cable	**II0006**	**$216.50**
F&B Wash-down Applications, IP69K												
M30, L=45	SS-316L	15f	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	**IIS281**	**$148.30**
M30, L=60	SS-316L	15f	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	**IIS282**	**$148.30**
M30, L=60	SS-316L	30nf	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	**IIS284**	**$148.30**
M30, L=60	SS-316L	15f	10-30 DC	PNP, Complimentary	-40	85	2,000	100	M12	K1	**IIS291**	**$158.80**
M30, L=65	SS-316L	12f	10-30 DC	PNP/NPN, NO/NC	0	100	50	100	M12	IO-Link	**IIT244**	**$192.10**
M30, L=70	SS-316L	22nf	10-36 DC	PNP/NPN, NO	0	100	100	100	M12	FDA	**IIT202**	**$182.90**
M30, L=70	SS-316L	10f	10-36 DC	PNP, NO	-40	60	50	40	M12	2D,3G	**II504A**	**$211.90**
M30, L=70	SS-316L	14f	10-36 DC	PNP/NPN, NO	0	100	100	100	M12	FDA	**IIT204**	**$182.90**
M30, L=92	SS-316L	10f	10-55 DC	PNP/NPN, NO/NC	-25	80	450	400	M12	FDA	**II5751**	**$150.20**

Accessories

Type	Description	Order no.	Price
	Angle bracket for type M30,stainless steel	**E10737**	**$9.30**

Inductive sensors

RECTANGULAR INDUCTIVE SENSORS

Size (mm)	Material	Range (mm)	Operating Voltage (V)	Output Function	Temp Range (°C)		Max. Freq'y (Hz)	Max. Load (mA)	Electrical Connection	Note	Order No.	Price
Industrial Applications, IP67												
	40x40x120	20nf	20-250AC/DC	NO/NC	-25	80	20	250	M20		**IM0010**	**$239.10**
	40x40x120	15nf	20-250AC/DC	NO/NC	-25	80	20	250	M20		**IM0011**	**$239.10**
	40x40x54	20nf	10-36 DC	PNP, NO	-25	70	100	200	M12		**IM5115**	**$110.40**
	40x40x54	35nf	10-36 DC	PNP, NO	-25	70	80	200	M12		**IM5116**	**$113.60**
	40x40x54	40nf	10-36 DC	PNP, NO	-25	70	60	200	M12		**IM5117**	**$113.60**
	40x40x54	20nf	10-36 DC	PNP, NO	-25	70	200	200	M12	K1	**IM5119**	**$132.10**
	40x40x54	40nf	10-36 DC	PNP, Complmtry	-25	70	200	200	M12	K1	**IM5126**	**$149.80**
	40x40x54	40nf	10-36 DC	PNP, Complmtry	-25	70	200	200	M12	K1	**IM5135**	**$128.50**
	40x12x26	2nf	20-250AC/DC	NO	-25	80	80	100	2m Cable		**IN0073**	**$203.60**
	40x12x26	4nf	10-36 DC	PNP, NO	-25	80	1300	250	2m Cable		**IN5129**	**$140.50**
	32x20x8	8f	10-30 DC	PNP, NO	-40	85	400	100	M12		**IQ2002**	**$168.00**
	32x20x8	8f	10-30 DC	PNP/NPN, NO/NC	-40	85	300	100	2m Cable	IO-Link	**IQ2008**	**$185.00**
	32x20x8	8f	10-30 DC	PNP/NPN, NO/NC	-40	85	300	100	M12	IO-Link	**IQ2009**	**$195.60**
	32x20x8	8f	10-30 DC	PNP, NO	-40	85	2000	100	M12		**IQ2010**	**$153.40**
	32x20x8	8f	10-30 DC	PNP, NC	-40	85	2000	100	0.3m, M12		**IQ2013**	**$163.30**
	60x36x10	8f	10-36 DC	PNP, NC	-20	80	300	250	M8, 3W		**IW5062**	**$157.50**
	60x36x10	8f	10-36 DC	PNP, NO	-20	80	300	250	M8, 3W		**IW5064**	**$171.30**
	60x35x20		10-35 DC	PNP, NO/NC	-25	70	35 (m/s)	200	M12	Ring Sensor 10.1mm hole	**I7R201**	**$291.60**

Valve actuator position feedback

Continuous position feedback

Scan to learn more

- Great all-round position visibility from a distance
- Easy setting via teach button or IO-Link
- Diagnostic functions: cycle time and count, seal monitoring

Valve Open

Valve closed

Warning: valve not completely closed

Diagnostic functions

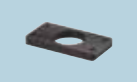
The IO-Link communication interface allows the identification of different wear conditions. On the one hand, the sensor features seal monitoring indicating a change of the closed position, which can point to deposits or wear of the seal, for example. On the other hand, the different positions can be counted and the time taken can be measured.

Automation package for pneumatic valve actuators

Description	Order no.	Price
Smart valve sensor, MVQ201 installation package		
Mounting footprint 95x50mm, 5/2-way control valve, adjust to 3/2-way	ZZ0628	$831.40
Mounting footprint 95x50x10mm, 5/2-way control valve adjust to 3/2-way	ZZ0629	$853.20
Mounting footprint 145x50x10mm, 5/2-way control valve adjust to 3/2-way	ZZ0630	$863.70
Smart valve sensor, MVQ301 installation package		
Mounting footprint 95x50mm, 5/3-way control valve	ZZ0686	$1,420.20
Mounting footprint 95x50mm, 3/3-way control valve	ZZ0687	$1,441.70
Mounting footprint 95x50mm, 5/3-way control valve, defined home position	ZZ0688	$1,463.20

U_b [V DC]	Shaft, height vs dia	Description	Order no.	Price
Smart valve sensor · M12 connector, IP67 protection				
10...30 DC	20mm < 38mm	Smart valve sensor	MVQ101	$598.20
10...30 DC	20mm < 38mm	Smart valve sensor with solenoid outputs	MVQ201	$633.30
20...30 DC	20mm < 38mm	Valve sensor with positioning system	MVQ301	$766.20

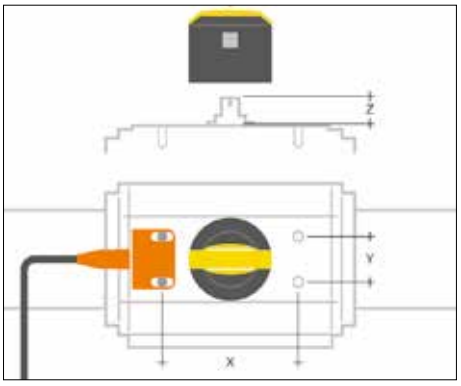
Accessories

Design	Description	Order no.	Price
	Adapter 80 x 30 x 10 mm	E12569	$33.80
	Adapter 130 x 30 x 10 mm	E12573	$48.80
	Mounting bridge shaft height 20...40mm	E12674	$114.50
	Mounting bridge shaft height 30...50mm	E12628	$107.20
	2 m black, PUR cable, 5 x 0.34mm	EVC070	$36.10
	5 m black, PUR cable, 5 x 0.34mm	EVC071	$44.50
	10 m black, PUR cable, 5 x 0.34mm	EVC072	$61.10
	2 m black, PUR cable, 5 x 0.34mm	EVC073	$36.10
	5 m black, PUR cable, 5 x 0.34mm	EVC074	$44.50

Valve position feedback switches

FAST RETRO FIT SOLUTIONS

Connection	U_b [V]	Output function	IP Rating	Order no.	Price
M12	10...36 DC	2x PNP/NPN - NO	IP67	**IN5224**	**$308.60**
M12	10...36 DC	2x PNP - NO	IP67	**IN5225**	**$308.60**
M12	10...36 DC	2x PNP - NO	IP67	**IN5327**	**$310.30**



Accessories

Type	Mounting dimensions [X / Y mm]	Height of the actuator shaft [Z mm]	Shaft diameter	Order no.	Price
	80 / 30	30	Dia. 53 mm	**E12517**	**$33.80**
	80 / 30	30	Dia. 66 mm	**E12724**	**$40.00**
	Switching amplifier, dual channel, transistor			**N0534A**	**$527.00**
M12 sockets 4-pole (0.34mm sensor)					
	2 m black, PUR cable			**EVC004**	**$33.60**
	5 m black, PUR cable			**EVC005**	**$39.20**
	10 m black, PUR cable			**EVC006**	**$48.20**
	25 m black, PUR cable			**EVC088**	**$85.20**
IECEx cables for NN5008					
	5 m blue, PUR cable			**ENC05A**	**$47.60**
	10 m blue, PUR cable			**ENC06A**	**$73.60**

MANUAL VALVE FEEDBACK

Type	Description	Top Flange Dia	Order no.	Price
	Manual valve mounting set (F04/M5)	42mm	**E12519**	**$167.20**
	Manual valve mounting set (F05/M5)	50mm	**E12520**	**$167.20**
	Manual valve mounting set (F05/M6)	50mm	**E12521**	**$167.20**
	Manual valve mounting set (F07/M6)	70mm	**E12522**	**$167.20**
	Manual valve mounting set (F07/M8)	70mm	**E12523**	**$171.90**
	Manual valve mounting set (F10/M8)	102mm	**E12524**	**$184.80**

Motion control sensors and monitors

Precise motion monitoring

Scan to learn more

INCLINATION SENSOR

Type	Description	Order no.	Price
2 axis - IO-Link comms			
	2x Axis. Angular range ± 90°. Output 1 IO-Link NO/NC prog. Output 2 - NO/NC prog. PNP/NPN. Analogue 4...20 mA. Output 3 and 4 analogue	JN2200	$736.30
	2x Axis. Angular range ± 45° / ± 90°, IO-Link. Ouput 1 - IO-Link NO/NC prog. Output 2 - NO/NC prog. PNP/NPN. Analogue 4...20 mA	JN2201	$818.10
1 or 2 axis (X,Y) - CAN bus			
	Inclination sensor; 27 x 59 x 118.5 mm; CAN; Ambient temperature -40...85 °C; M12 Connector; [inclination measurement]: ± 90 °	JD2120	$1,369.60
	Inclination sensor; 27 x 59 x 105.3 mm; CAN; Ambient temperature -40...85 °C; M12 Connector; [inclination measurement]: 0...360 °	JD1111	$1,325.50

Accessories

Type	Description	Order no.	Price
	2 m black, PUR cable	EVC004	$33.60
	5 m black, PUR cable	EVC005	$39.20
	10 m black, PUR cable	EVC006	$48.20
	25 m black, PUR cable	EVC088	$85.20

Motion control sensors & controllers

MULTI-FUNCTIONAL TFT DISPLAY FOR IMPULSE SIGNALS, ANALOGUE SIGNALS & TEMPERATURE

Power supply	Inputs	Outputs	Order no.	Price
IP65 multi-function TFT display				
24 VDC	V, mA, kHz, °C, PT100, PT1000, thermocouple	2 x relays	**DX1063**	**$536.90**

ROTATION & SPEED MONITORS

Type	Ub [V]	Setting range [Hz]	Outputs relay	Output	Order no.	Price
1 pulse input PNP						
	110...240 AC / 27 (TYP. 24) DC 50...60 Hz	0.1...1,000	2	4...20 mA	**DD2503**	**$742.30**

Type	Installation Range	Setting Range [pulses/min]	Startup delay [s]	Order no.	Price
IO-Link Communication Interface					
M18	7 f	5...24,000	0...30	**DI5029**	**$280.20**
Compact speed monitors					
M18	12 nf	3...6,000	0...15	**DI6001**	**$467.10**
Compact speed monitors, IO-Link					
M18	7 f	1...32,000	0...15	**DI6005**	**$395.10**

Scan to learn more

SPEED MONITOR WITH IO-LINK

Type	Inputs / Outputs	Setting range [Hz]	Output	IP Rating	Order no.	Price
Speed monitor IO-Link - 0...2000 Hz						
	1 x DI 2 x DO	0...2,000	PNP/NPN	IP67	**DP2122**	**$310.10**
	1 x DI 2 x DO	0...2,000	PNP/NPN	IP69K	**DP4122**	**$300.60**
Counter IO-Link - 0...2000 Hz						
	2x digital PNP	2x digital PNP/NPN	PNP/NPN	IP67	**DP2302**	**$316.10**
	2x digital PNP	2x digital PNP/NPN	PNP/NPN	IP69K	**DP4302**	**$305.10**

Rotary Encoders

Encoder control

Scan to learn more

Encoders use the wear-free photoelectric or magnetic detection. A pulse disc firmly attached to the shaft or a movable magnet carrier ensures this detection. A distinction is made between incremental and absolute encoders. Incremental encoders generate a precisely defined number of pulses per revolution. They are a measure of the angular or linear distance moved. Absolute encoders provide an absolute numerical value for each angular position even over several revolutions.

INCREMENTAL ENCODERS - 1...10,000 RESOLUTION

Housing Ø [mm]	Shaft Ø [mm]	Design shaft	Flange	Order no.	Price
PerformanceLine 4-digit display, integrated pulse evaluation , 8 core					
58	6	solid shaft	servo	RUP500	$580.30
58	10	solid shaft	clamp flange	RVP510	$571.90
58.5	12	hollow shaft	direct	ROP520	$612.80
58.5	15	hollow shaft	direct	ROP522	$626.40
58.5	15.875	hollow shaft	direct	ROP524	$635.00
BasicLine Basic design without display, 5 core					
36.5	6	solid shaft	universal	RB3100	$422.60
36.5	6	solid shaft	flange	RB3500	$426.90
36.5	6	hollow shaft	flange	RA3100	$446.70
58	10	solid shaft	clamp flange	RV3100	$424.50
58	10	solid shaft	clamp flange	RV3110	$972.40
42	12	hollow shaft	-	RA3101	$456.20
58.5	12	hollow shaft	direct	RO3100	$446.70
32.3	12	hollow shaft	flange	RA3110	$866.30
58.5	15	hollow shaft	direct	RO3102	$468.60
58.5	15	hollow shaft	direct	RO3110	$1,057.10

ABSOLUTE ENCODERS - 8,192 RESOLUTION, 4...20 mA OUTPUT

Length	Connector	Design shaft	Pulses	Order no.	Price
1.9 m	M12	Draw wire encoder	8,192	RMS001	$1,310.00
3.0 m	M12	Draw wire encoder	8,192	RMS002	$1,727.80

Rotary encoders

ABSOLUTE MULTI-TURN ENCODERS

Housing Ø [mm]	Shaft Ø [mm]	Flange	Resolution	Order no.	Price
Absolute position traceability					
58	10	clamp	15/16 bits	**RMV300**	**$1,185.20**
36.5	12	direct	15/16 bits	**RMA300**	**$1,241.80**
58	15	hollow	15/16 bits	**RMO300**	**$1,254.00**

DRAW-WIRE

Length	Shaft Ø	Design shaft	Max Speed	Order no.	Price
1.9 m	6 mm	solid shaft	2.0 m / sec	**E61439**	**$655.20**
2.4 m	6 mm	solid shaft	1.0 m / sec	**E61440**	**$897.90**
3.0 m	6 mm	solid shaft	0.8 m / sec	**E61441**	**$1,164.30**
5.0 m	6 mm	solid shaft	2.0 m / sec	**E61442**	**$1,649.50**

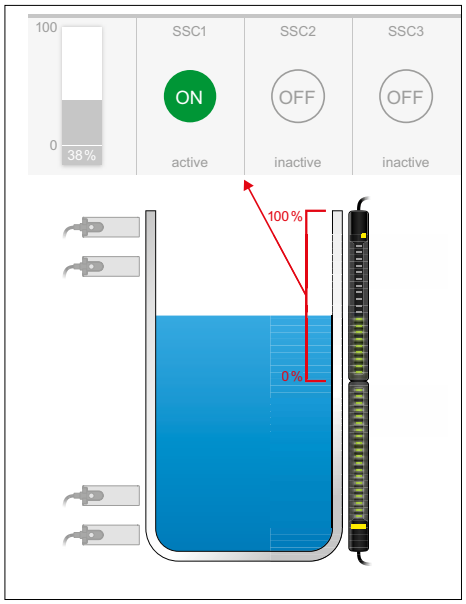
Accessories

Type	Description	Order no.	Price
M12 sockets 8-pole			
	5 m, 8-pole, black, PUR cable	**E12403**	**$103.30**
	10 m, 8-pole, black, PUR cable	**E12404**	**$132.50**
	5 m, 5-pole, black, TPU cable	**EVC545**	**$54.90**
	10 m, 5-pole, black, TPU cable	**EVC546**	**$74.00**
	Flexible coupling with adjusting screws, Ø 10 mm / 10 mm, aluminium	**E60022**	**$111.50**
	Flexible coupling with clamp connection, Ø 10 mm / 10 mm, aluminium	**E60067**	**$110.00**
	Flexible coupling with clamp connection, Ø 6 mm / 10 mm, aluminium	**E60066**	**$110.00**
	Angle bracket RU,RN,RM,RMU	**E60034**	**$144.40**
	Angle bracket encoders RV,RMV	**E60035**	**$144.40**
	Spring arm	**E61438**	**$458.60**
	Aluminium surface measuring wheel External diameter 63.6 mm	**E60095**	**$130.40**
	Aluminium surface measuring wheel External diameter 159.15 mm	**E60098**	**$156.40**
	Rubber surface measuring wheel External diameter 63.66 mm	**E60138**	**$130.40**
	Rubber surface measuring wheel External diameter 159.15 mm	**E60110**	**$156.40**

Capacitive sensors

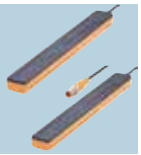
Detect non-metalic targets

Scan to learn more



- **Continuous level monitoring from outside the process**
- **No stress caused by the medium thanks to non-contact detection**
- **Three point level positions in one sensor**
- **Deposits can be detected and signalled to improve quality of the process**
- **Several KQ10 units can be linked via IO-Link**

KQ10 FOR CONTINUOUS LEVEL MONITORING - 3 PROGRAMMABLE SET POINTS

Type	Power Supply	Ambient temp	Protection rating	Connection	Order no.	Price
Capacitive point level via continuous level monitoring - PNP/NPN						
	18-30 vDC	-20...80°	IP67	2m cable, 5-pole	**KQ1000**	**$552.80**
	18-30 vDC	-20...80°	IP67	0.1m cable, M12 connector, 5-pole	**KQ1001**	**$552.80**

Accessories

Type	Description	Order no.	Price
	Mounting adapter for flat surfaces	**E12675**	**$52.10**
	Mounting adapter for pipes	**E12676**	**$49.10**
	Surface mount tape for KQ10	**E12677**	**$99.00**
	PA cable tie, 760mm long (5 piece pack)	**E10880**	**$13.30**
	2m, Black, PUR jumper, 5-pole	**EVC058**	**$69.50**
	5m, Black, PUR jumper, 5-pole	**EVC059**	**$80.50**

Capacitive sensors

PROGRAMMABLE RANGES

Design	Power Supply	Output	Sensing range [mm]	Housing material	Order no.	Price
PerfomanceLine · M12 connector ·3 wires, IO-Link Com 2						
M12	10...36 VDC	PNP, NO	1...6 f	SS316S12	**KF5001**	**$273.10**
M12	10...36 VDC	PNP, NO	3...12 nf	SS316S12	**KF5002**	**$273.10**
M18	10...36 VDC	PNP, NO/NC	5...30 nf	PBT	**KG6000**	**$250.20**
M30	10...36 VDC	PNP, NO/NC	5...40 nf	PBT	**KI6000**	**$250.20**
M30	20...250 AC/DC	NO/NC Prog	5...40 nf	PBT	**KI0054**	**$307.30**
M30	10...36 VDC	PNP, NO/NC	8 f	SS316S12	**KI5085**	**$308.10**
M30	10...36 VDC	PNP, NO/NC	15 nf	SS316S12	**KI5087**	**$308.10**
M30	NAMUR	NC	15 nf	PBT	**KI5031**	**$299.10**

Accessories

Type	Description	Order no.	Price
	Mounting adapter for M30 types, G 1 1/2", POM, gasket EPDM	**E11033**	**$96.60**
	Mounting adapter for M18 types, G 3/4", POM	**E43900**	**$65.80**
	2 m black, PUR cable	**EVC004**	**$33.60**
	5 m black, PUR cable	**EVC005**	**$39.20**
	10 m black, PUR cable	**EVC006**	**$48.20**
	25 m black, PUR cable	**EVC088**	**$85.20**

TYPE KQ POINT LEVEL SENSORS

Capacitive sensors in small plastic rectangular housing. Easy installation with mounting adapters and fixing straps.

Design	Output stage	Sensing range [mm]	Housing material	Connection	Order no.	Price
PerfomanceLine · M12 connector ·3 wires, IO-Link Com 2						
48 x 20 x 14	PNP	12 nf	PBT	cable 2 m	**KQ6002**	**$193.40**
48 x 20 x 7	PNP	12 nf	PBT	cable 2 m	**KQ5100**	**$113.40**
Connection cable with M12 connector · 3-wire						
48 x 20 x 14	PNP	12 nf	PBT	M12	**KQ6005**	**$219.00**

MULTI COLOURED TOUCH SENSORS WITH IO-LINK

Note: refer to the ifm.com/au order number / accessories - to purchase symbol discs and surrounds.

Housing material	Electrical design	Ambient temp	Protection rating	Connection	Order no.	Price
Multi-coloured touch sensors with IO-Link						
Plastic PA	PNP/NPN, NO/NC programmable	-30...65°	IP69K	M12	**KTE101**	**$150.60**
Plastic PA	PNP/NPN, NO/NC programmable	-30...65°	IP69K	2m PUR cable	**KTE102**	**$150.60**
SS304	PNP/NPN, NO/NC programmable	-30...65°	IP69K	M12	**KTE301**	**$172.10**
SS304	PNP/NPN, NO/NC programmable	-30...65°	IP69K	2m PUR cable	**KTE302**	**$178.60**

Cylinder sensors
Magnetic T and C slot

Robust connection and mounting system

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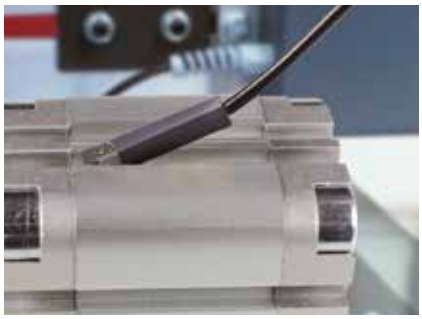
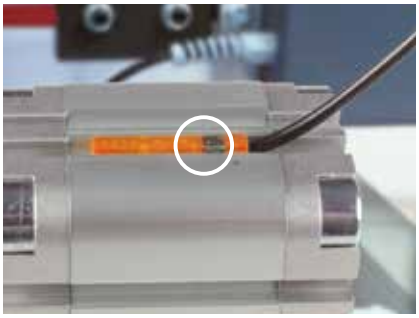
MOUNTING COMPARISON

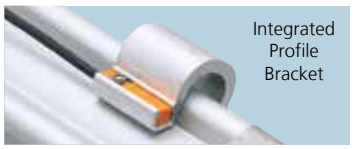


Conventional sensors:
Cable and mounting screw are placed at opposite ends of the housing. If the cable is pulled, the sensor can be dislodged.



ifm top-loading sensors:
Cable and mounting screw are at the same end. If the cable is pulled, the sensor stays put.

Traditional versus IO-link switches:
Traditionally two magnetic switches are used for short stroke cylinders. Now one IO-link magnetic switch provides both end outputs. Resulting in a 50% cost reduction!

	Cylinder Type	Type	Description	Order no.	Price
	Protective Bracket for Smooth Cylinders				
Smooth Cylinder	Protective Bracket		Outside Ø 11…19 mm. Bore size 10-16 mm	E11975	$17.40
			Outside Ø 18…29 mm. Bore size 20-25 mm	E11976	$17.40
			Outside Ø 28…39 mm. Bore size32 mm	E11977	$18.30
			Outside Ø 38…49 mm. Bore size 40 mm	E11978	$18.30
			Outside Ø 48…59 mm. Bore size 50 mm	E11979	$19.60
			Outside Ø 58…69 mm. Bore size 63 mm	E11980	$20.40
			Outside Ø 78…89 mm. Bore size 80 mm	E11981	$21.10
	Protective Bracket for Tie-Rod Cylinders				
Tie-Rod Cylinder	Protective Bracket		Adapter for tie rod / profile cylinders, clamping range 3...7 mm, aluminium	E11913	$12.70
			Adapter for tie rod / profile cylinders, clamping range 5...7 mm, aluminium	E11912	$12.00
			Adapter for tie rod / profile cylinders, clamping range 5...11 mm, aluminium	E11797	$12.90
			Adapter for tie rod / profile cylinders, clamping range 9...15 mm, aluminium	E11799	$12.90
	Integrated Profile Bracket for Integrated Profile Cylinders				
Integrated Profile Cylinders	 Integrated Profile Bracket		Integrated profile thickness diameter 9...15 mm	E11799	$12.90
			Integrated profile thickness diameter 14...20 mm	E11801	$14.00

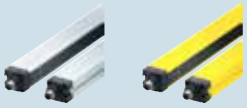
Cylinder sensors

MAGNETIC T AND C SLOT

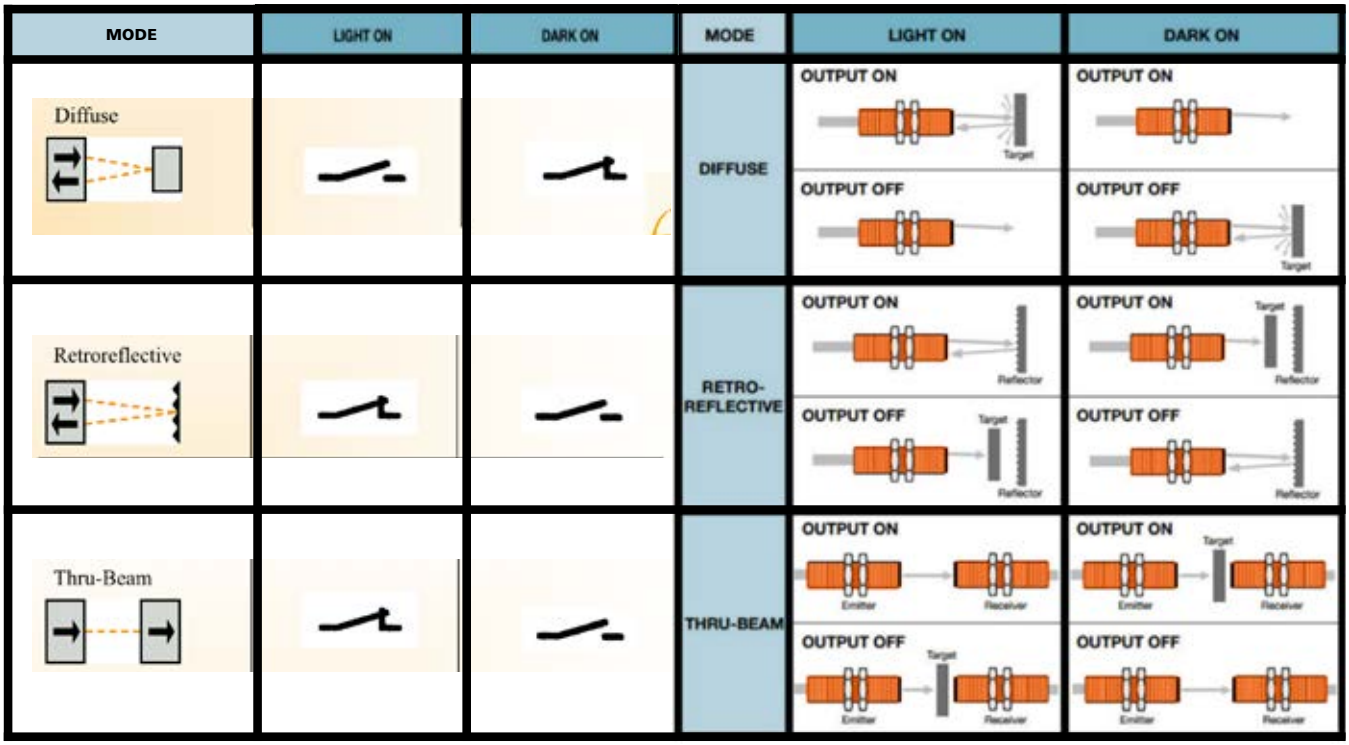
Application	No. Wires	Operating Voltage (V)	Max Switching Freq'y (Hz)	Output	Connection	Order No.	Price
T-Slot, F&B Industry IP69k Types							
Washdown	3	10-30 DC	10,000	PNP NO	2m cable	**MK5110**	**$97.90**
Washdown	3	10-30 DC	10,000	PNP NO	0.3m cable M8 plug	**MK5111**	**$109.50**
Washdown	3	10-30 DC	10,000	PNP NO	6m cable	**MK5128**	**$112.10**
Washdown	3	10-30 DC	6,000	PNP NO	0.3m cable M12 plug	**MK5157**	**$109.50**
Washdown	3	10-30 DC	6,000	PNP NO	0.3m cable M12 plug	**MK5177**	**$109.50**
T-Slot, Industrial Cylinder Sensors, IO-link							
Industrial	4	10-30 DC	200	2 x PNP / NPN	2m cable	**MK5904**	**$197.70**
Industrial	3	10-30 DC	200	1 x PNP / NPN	0.3m cable M8 plug, 3 wire	**MK5905**	**$201.80**
Industrial	3	10-30 DC	200	1 x PNP / NPN	0.3m cable M8 plug, 3 wire	**MK5906**	**$204.80**
Industrial	4	10-30 DC	200	2 x PNP / NPN	0.3m cable M8 plug, 4 wire	**MK5907**	**$204.80**
Industrial	4	10-30 DC	200	2 x PNP / NPN	0.3m cable M12 plug	**MK5908**	**$208.30**
Industrial	4	10-30 DC	200	2 x PNP / NPN	6m cable	**MK5909**	**$209.40**
T-Slot, Industrial Cylinder Sensors							
Industrial	3	10-30 DC	10,000	PNP NO	2m cable	**MK5100**	**$90.60**
Industrial	3	10-30 DC	10,000	PNP NO	0.3m cable M8 plug	**MK5101**	**$97.00**
Industrial	3	10-30 DC	10,000	PNP NO	0.3m cable M8 plug	**MK5102**	**$100.50**
Industrial	2	10-30 DC	4,000	PNP/NPN NO	2m cable	**MK5103**	**$98.50**
Industrial	2	10-30 DC	4,000	PNP/NPN NO	0.3m cable M8 plug	**MK5104**	**$108.00**
Industrial	2	10-30 DC	10,000	PNP NO	0.3m cable M12 plug	**MK5107**	**$103.10**
Industrial	3	10-30 DC	10,000	PNP NO	0.3m cable M12 plug	**MK5108**	**$106.70**
Industrial	3	10-30 DC	10,000	PNP NO	6m cable	**MK5117**	**$103.10**
Industrial	2	10-30 DC	4,000	PNP/NPN NO	6m cable	**MK5123**	**$112.10**
Industrial	2	10-30 DC	6,000	NPN NO	0.3m cable M8 plug	**MK5137**	**$97.00**
Industrial	3	10-30 DC	6,000	PNP NO	0.3m cable M8 plug	**MK5138**	**$97.00**
Industrial	3	10-30 DC	6,000	PNP NO	M8 plug	**MK5900**	**$106.50**
T-Slot, AC/DC Versions							
Industrial	2	5-120 AC/DC	1,000	PNP/NPN NO	2m cable	**MR0100**	**$55.10**
Industrial	2	5-50 AC/DC	1,000	PNP/NPN NO	0.3m cable M8 plug	**MR0101**	**$60.70**
Industrial	3	5-50 AC/DC	1,000	PNP NO	0.3m cable M8 plug	**MR0119**	**$60.70**
Industrial	2	5-50 AC/DC	1,000	PNP/NPN NO	M8 plug	**MR0901**	**$69.10**
C-Slot, Cylinder Sensors							
Industrial	3	10-30 DC	10,000	PNP NO	0.3m cable M8 plug	**MK5310**	**$112.50**
Industrial	3	10-30 DC	10,000	PNP NO	0.3m cable M8 plug	**MK5311**	**$116.20**
C-Slot, Cylinder Sensors, IO-Link							
Industrial	3	10-30 DC	200	1 x PNP / NPN	2m cable	**MK5800**	**$220.70**
Industrial	3	10-30 DC	200	1 x PNP / NPN	0.3m cable M8 plug	**MK5801**	**$222.00**
Industrial	3	10-30 DC	200	1 x PNP / NPN	0.3m cable M8 plug	**MK5802**	**$223.50**
Industrial	3	10-30 DC	200	1 x PNP / NPN	0.3m cable M12 plug	**MK5803**	**$228.80**
Industrial	3	10-30 DC	200	1 x PNP / NPN	6m cable	**MK5804**	**$227.50**

Photoelectric sensors overview

APPLICATION SELECTION GUIDE

	Function Principle	Range
O8 series & Fibre Optics **Miniature design, infrared and red light sensors**	Retro-Reflective	0…1.8m
	Through- Beam	0…3m
O6 Series **Compact rectangular plastic housing** **Wetline for Hygenic Wet Areas**	Diffuse	0…0.5m
	Retro-Reflective	0…5m
	Through- Beam	0…10m
OF & OG Series **M12 & M18 Threaded for Wet Areas** **M18 Cube in Metal housing**	Diffuse	0…1.5m
	Retro-Reflective	0…15m
	Through- Beam	0…60m
O1D, OID, OGD Series **PMD Distance Sensor for Precise Measurement**	Diffuse	0…1.5m
O5/O4 Series **Rectangular design for industrial applications**	Diffuse	0…2m
	Retro-Reflective	0…10m
	Through- Beam	0…25m
PMD Profiler **Precise contour monitoring**	Diffuse	150…300m
 **Light Grid for interlogistics** **Safety Light Curtains and Grids**		20m
UG Series **Object Detection for transparent targets**	Diffuse	0.03…8.0m
2D & 3D Vision Solutions	Diffuse	4 m

Correct selection of Optical Sensor Outputs



Photoelectric sensors and mounting accessories

Scan to learn more

FIBRE OPTIC SENSORS

Range [mm]	Connection	Operating Voltage (V)	Output Function	Order no.	Price
Select fibre optics from "Accessories"					
100 diffuse	M12	10...30 DC	PNP/NPN, LO/DO (prog)	OBF500	$272.20
2,000 T beam				OBF500	$272.20

O8 SERIES MINIATURE PLASTIC - *BEST BACKGROUND SUPPRESSION AVAILABLE!*

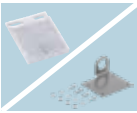
Miniature sensors, short range

Note: BGS = Background Suppression

Range	Connection	Order no.	Price
Diffuse reflection sensor with background suppression · 24 vDC, PNP IO-Link			
15mm	0.3 m PVC cable / M8 connector, 3 poles, light on	O8H202	$239.50
30mm	2 m PVC cable, 3 poles, light on	O8H206	$239.50
50mm	2 m PVC cable, 3 poles, progammable LO/DO	O8H212	$239.50
50mm	0.3 m PVC cable / M8 connector, 3 poles, light on	O8H214	$239.50
80mm	2 m PVC cable, 3 poles, light on	O8H218	$239.50
80mm	0.3 m PVC cable / M8 connector, 3 poles, light on	O8H222	$239.50
80mm	0.3 m PVC cable / M12 connector, 4 poles, light on	O8H273	$239.50
Retro reflective sensor · 3 wires 24 vDC, PNP IO-Link			
1.8m	2 m PVC cable, 3 poles	O8P200	$206.40
1.8m	0.3 m PVC cable / M8 connector, 3 poles	O8P202	$206.40
1.8m	0.3 m PVC cable / M8 connector, 3 poles	O8P204	$206.40
Through beam transmitter · 2 wires 24 vDC, PNP, IO-Link,			
1.8m	0.3 m PVC cable / M8 connector, 2 poles	O8S201	$144.40
Through beam receiver · 3 wires 24 vDC, PNP, IO-Link			
1.8m	0.3 m PVC cable / M8 connector, 3 poles, PNP, LO\DO, Prog	O8E202	$167.60

Whether flat, shiny, matte, dark or light, the O8 offers reliable optical performance independent of target color and is ideal for assembly automation and robotic applications.

Accessories

Type	Description	Order no.	Price
	O8 Standard Angle L-bracket	E21291	$19.60
	O8 Clamp Bracket 10 mm	E21298	$42.80
	Rod Mounting Straight D10mm	E21081	$25.60
	Prismatic reflector Ø 50 mm, plastic	E20004	$14.00
	Prismatic reflector Ø 80 mm, plastic	E20005	$16.40
	Prismatic reflector 48 x 48 mm, PMMA, ABS	E20744	$33.40
	Mounting set for reflector E20744, clamp mounting, SS, 61 x 51 mm	E20724	$9.70
	Adjustable mounting set,	E20950	$23.50
	Mounting cube (for aluminium profiles)	E20951	$23.50

Photoelectric sensors

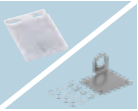
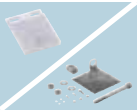
O6 SERIES IP67, PHOTOELECTRIC SENSORS

Range [mm]	Light spot dia [mm]	Connector	Order no.	Order no.	Price
Diffuse reflection sensor · 3-wire DC, programmable output			**PNP**	**NPN**	
2...200	8*	M12, 3-pole (BGS)	**O6H201**	-	**$221.80**
2...200	8*	M8, 3-pole (BGS)	**O6H202**	-	**$221.80**
5...500	15*	M8, 3-pole	**O6T202**	**O6T206**	**$193.70**
5...600	24*	M8, 4-pole	**O6T215#**	**O6T216#**	**$193.70#**
Retro-reflective sensor polarisation filter · 3-wire DC			**PNP**	**NPN**	
50...5,000	150**	M12, 3-pole	**O6P201**	**O6P205**	**$193.70**
50...5,000	150**	M8, 3-pole	**O6P202**	**O6P206**	**$193.70**
50...5,000	150**	M8, 4-pole	**O6P203**	**O6P207**	**$193.70**
Through-beam sensor transmitter · 2-wire DC					
0...10,000	300*	M8, 3-pole	**O6S202**		**$101.10**
Through-beam sensor receiver · 3-wire DC			**PNP**	**NPN**	
0...10,000	–	M8, 3-pole	**O6E202**	**O6E206**	**$123.30**

* at maximum range.
** referred to prismatic reflector Ø 80 mm
*** 4-wire, complementary output
# infared

Easy alignment – Powerful visible red light source with precise spot enables easy alignment and quick setup.

Accessories

Type	Description	Order no.	Price
Prismatic reflector			
	Ø 50 mm, plastic, -10...60° C	**E20956**	**$16.80**
	Ø 80 mm, plastic, -10...60° C	**E20005**	**$16.40**
	48 x 48 mm, PMMA, ABS, -10...60° C	**E20744**	**$33.40**
	Reflector mounting bracket E20744, SS, 61 x 51 mm	**E20724**	**$9.70**
	Adjustable mounting set,	**E20946**	**$33.80**
	Mounting cube for aluminium profiles	**E20951**	**$23.50**
	96 x 96 mm, plastic, -10...60° C	**E20454**	**$35.70**
	Reflector mounting bracket E20454, SS, 100 x 100 mm	**E20935**	**$60.50**

O6 SERIES MINIATURE PLASTIC - *LASER*

Range [mm]	Connection	Order no.	Price
Diffuse reflection sensor with background suppression, 3-wire DC, IO-Link			
100	0.3 m PUR cable / M12, 4-pole	**O6H701**	**$426.70**
100	M8, 4-pole	**O6H702**	**$426.70**
Retro-reflective sensor with polarisation filter, 3-wire DC (reflector E20722)			
75...8,000	0.3 m PUR cable / M12 connector, 4-pole	**O6P701**	**$399.60**
Through-beam sensor transmitter, DC			
15,000	2 m PUR cable, 3-pole	**O6S700**	**$321.50**
15,000	0.3 m PUR cable / M12 connector, 4-pole	**O6S701**	**$321.50**
Through-beam sensor receiver, 3-wire DC			
15,000	0.3 m PUR cable / M12 connector, 4-pole	**O6E701**	**$202.70**

Photoelectric sensors

O6 SERIES IP69K, PHOTOELECTRIC SENSORS

IP 67
IP 68
IP 69 K

High-grade stainless steel

Range [mm]	Light spot dia [mm]	Connector	Order no.	Order no.	Price
Diffuse reflection sensor · 3-wire DC, programmable output			**PNP**	**NPN**	
2...200	8*	2m PVC cable (BGS)	**O6H300**	-	**$314.40**
2...200	8*	M12, 3-pole (BGS)	**O6H301**	-	**$314.40**
2...200	8*	M8, 4-pole (BGS)	**O6H303**	**O6H307**	**$314.40**
2...200	8*	M8, 4-pole (BGS)	**O6H309**	-	**$326.20**
5...500	15*	M12, 4-pole	**O6T301**	**O6T305**	**$273.30**
5...500	15*	M8, 4-pole	**O6T309**	-	**$284.00**
Retro-reflective sensor polarisation filter · 3-wire DC			**PNP**	**NPN**	**PNP**
50...5,000	150**	M12, 4-pole	**O6P301**	**O6P305**	**$286.20**
50...5,000	150**	M8, 3-pole	**O6P302**	**O6P306**	**$286.20**
50...5,000	150**	M8, 4-pole	**O6P303**	-	**$286.20**
50...5,000	150**	M8, 4-pole	**O6P309**	-	**$293.50**
50...5,000	150**	M8, 4-pole***	**O6P310**	-	**$281.40**
Through-beam sensor transmitter · 2-wire DC			**PNP**	**NPN**	**PNP**
0...10,000	300*	M12, 4-pole	**O6S301**	-	**$162.20**
0...10,000	300*	M8, 3-pole	**O6S302**	-	**$162.20**
0...10,000	300*	M8, 4-pole	**O6S303**	-	**$162.20**
0...10,000	300*	M8, 4-pole	**O6S305**	-	**$173.20**
Through-beam sensor receiver · 3-wire DC			**PNP**	**NPN**	**PNP**
-	-	2m PVC cable	**O6E300**	-	**$192.80**
-	-	M12, 4-pole	**O6E301**	**O6E305**	**$192.80**
-	-	M8, 3-pole	**O6E302**	**O6E306**	**$192.80**
-	-	M8, 4-pole	**O6E303**	-	**$192.80**
0...10,000	-	M8, 4-pole	**O6E309**	-	**$202.70**

* at maximum range.
** referred to prismatic reflector Ø 80 mm
*** 4-wire, complementary output

ifm electronic

ECOLAB

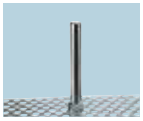
ECOLAB Deutschland GmbH
Ecolab-Allee 1
D-40789 Monheim am Rhein
certifies that for
ifm electronic gmbh
Friedrichstraße 1
45128 Essen
a
material resistance test
was performed with P3-topax 19, P3-topax 56, P3-topax 66, P3-topax 990, P3-topactive 200, P3-topactive DES and demineralised water as zero value.
The material compatibility of the tested sensors from the serie O6x3xx with the P3 products used in the test can be considered to be positive under the operating conditions stated overleaf.

Monheim, 19 August 2014

i.V. T. Tyborski

i.V. R. Laaff

Accessories

Type	Description	Order no.	Price
Solidchem Prismatic reflectors for the food industry (up to 140° C)			
	56 x 38 mm	**E21268**	**$36.80**
	46 x 48 mm	**E21269**	**$59.40**
	96 x 96 mm	**E21270**	**$83.90**
	Mounting set for clamp mounting, stainless steel, Ø 10 mm	**E21272**	**$42.80**
	Mounting set for clamp mounting, stainless steel, Ø 12 mm	**E21275**	**$41.30**
	Adjustable mounting set	**E20716**	**$14.00**
	Mounting cube (for aluminium profiles)	**E20951**	**$23.50**
	Mounting rod, 120 mm, Ø 10 mm, M8 thread, stainless steel	**E21081**	**$25.60**
	Mounting rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	**E20938**	**$15.70**
	Bracket for free-standing mounting, stainless steel	**E21271**	**$17.20**

Photoelectric sensors

M18 OG-CUBE SERIES - STANDARD APPLICATIONS, ZINC ALLOY BODY

Range	Light-on / dark-on mode	Switching output	Order no.	Order no.	Price
Diffuse reflection sensor with BGS · M12 connector · 3 wires			**PNP**	**NPN**	
15...200 mm	programmable	24v DC PNP	**OGH580**	-	**$307.90**
100 mm (fixed)	Light On	24v DC PNP	**OGH280**	-	**$288.50**
200 mm (fixed)	Light On	24v DC PNP	**OGH281**	-	**$288.50**
200 mm (fixed)	Light On	24v DC NPN	-	**OGH283**	**$283.40**
Retro-reflective sensor with polarisation filter · M12 connector · 3 wires					
100 mm...4 m	Dark On	24v DC PNP	**OGP280**	-	**$256.50**
100 mm...4 m	Dark On	24v DC NPN	-	**OGP282**	**$251.80**
100 mm...4 m	Light On	24v DC PNP	**OGP281**	-	**$256.50**
Through beam sensor					
15 m	-	Transmitter	**OGS280**	-	**$173.40**
15 m	Dark On	Receiver	**OGE280**	-	**$220.10**
15 m	Light On	Receiver	**OGE281**	-	**$220.10**

Robust metal housings

ifm's OG Series photoelectrics are far more robust than cheap plastic housings, which suffer from stripped mounting threads over time and the M12 connectors are a weak point that lead to maintenance problems!

M18 OG-CUBE SERIES - IP69K APPLICATIONS, STAINLESS STEEL BODY

Range	Light-on / dark-on mode	Switching output	Order no.	Order no.	Price
Diffuse reflection sensor with BGS · M12 connector · 3-wire DC			**PNP**	**NPN**	
100 mm (fixed)	light-on	24v DC PNP	**OGH380**	-	**$296.10**
200 mm (fixed)	light-on	24v DC PNP	**OGH381**	-	**$296.10**
Through-beam sensor - transmitter · M12 connector			**PNP**	**NPN**	
15 m	–	–	**OGS380**	-	**$206.80**
Through-beam sensor - receiver · M12 connector · 3 wires			**PNP**	**NPN**	
15 m	dark-on	24v DC PNP	**OGE380**	-	**$229.20**
15 m	light-on	24v DC PNP	**OGE381**	-	**$229.20**

Photoelectric sensors

M18 OG SERIES - STAINLESS STEEL BODY

F&B applications, stainless steel body

Range [mm]	Light-on / dark-on mode	Protection	Function	Order no.	Price
Diffuse reflection sensor, M12 connector · 3-wire DC					
100	PNP, Light On	IP69k	BGS	**OGH300**	**$321.90**
250	PNP, Light On	IP65	BGS	**OGH200**	**$287.70**
300	PNP, Prog LO/DO	IP69k	BGS	**OGH312**	**$335.90**
300	PNP, Prog LO/DO	IP67	BGS	**OGH500**	**$307.70**
300	NPN, Prog, LO/DO	IP67	BGS	**OGH504**	**$316.50**
600	PNP, Light On	IP65	-	**OGT200**	**$209.40**
800	PNP, Prog LO/DO	IP69k	-	**OGT300**	**$281.40**
800	PNP, Prog LO/DO	IP67	-	**OGT500**	**$228.70**
Retro reflective sensor, M12 connector · 3-wire DC					
4,000	PNP, Dark On	IP69K	-	**OGP300**	**$293.10**
4,000	PNP, Light On	IP69K	-	**OGP301**	**$293.10**
4,000	PNP, Dark On	IP67	-	**OGP200**	**$257.80**
4,000	PNP, Light On	IP67	-	**OGP201**	**$257.80**
5,000	PNP, Prog LO/DO	IP67	-	**OGP500**	**$288.10**
Through-beam sensor, M12 connector · 3-wire DC					
20,000	PNP, Dark On	IP67	Receiver	**OGE200**	**$223.80**
20,000	-	IP67	Transmitter	**OGS200**	**$183.50**
20,000	PNP, Dark On	IP69K	Receiver	**OGE300**	**$258.20**
20,000	PNP, Light On	IP69K	Receiver	**OGE301**	**$258.20**
20,000	-	IP69K	Transmitter	**OGS300**	**$216.90**
20,000	PNP, Prog LO/DO	IP69K	Receiver	**OGE500**	**$249.20**
20,000	-	IP69K	Transmitter	**OGS500**	**$205.90**

Bracket system offers accurate alignment

Innovative mounting brackets offer quick installation and setup. The bracket rotates 360° in each of two axes to achieve the most accurate alignment.

Accessories

Type	Description	Order no.	Price
	Clamp for Free-standing M10, capscrew, high-grade stainless steel	**E20870**	**$40.70**
	Clamp for mounting rod Ø 12 mm, high-grade stainless steel	**E21206**	**$32.90**
	Mounting rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	**E20938**	**$15.70**
	Mounting cube (for aluminium profiles)	**E20951**	**$23.50**
	Prismatic reflector, Ø 80 mm, plastic	**E20005**	**$16.40**
	48 x 48 mm, PMMA, ABS	**E20744**	**$33.40**
	96 x 96 mm, plastic	**E20454**	**$35.70**

Photoelectric sensors

M12 OF SERIES - INDUSTRIAL APPLICATIONS

Range [mm]	Light-on / dark-on mode	Protection	Function	Order no.	Price
Diffuse reflection sensor, M12 connector · 3-wire DC PNP					
200	Prog LO/DO	IP67	-	OF5010	$313.50
200	Prog LO/DO	IP65	-	OF5012	$346.20
400	Prog LO/DO	IP65	-	OF5027	$346.20
Through beam sensor, M12 connector · 3-wire DC PNP					
4,000	-	IP65	Transmitter	OF5021	$236.00
4,000	Prog LO/DO	IP65	Receiver	OF5022	$277.80

05 SERIES LONG RANGE PHOTOELECTRICS

Standard applications

Ranges [mm]	Spot Ø at max. range [mm]	Light-on / dark-on	Output function	Order no.	Price
Diffuse reflection sensor with BGS · M12 connector · 3-wire DC					
50...1,400	50	Light On	PNP	O5H200	$324.50
50...1,800	50	Prog LO/DO	PNP	O5H500	$420.40
Retro-reflective sensor · red light 624 nm · M12 connector · polarisation filter					
75...10,000	250	Prog LO/DO	PNP	O5P500	$321.70
Through-beam sensor - transmitter · M12 connector					
0...25,000	625	Prog LO/DO	Transmitter	O5S500	$246.40
0...25,000	–	Prog LO/DO	Receiver (PNP)	O5E500	$316.50
Contrast sensor, M12 connector · 3-wire DC PNP / NPN					
18...22	1.5 x 5	Prog LO/DO	PNP/NPN	O5K500	$612.80
Glass sensor, M12 connector · 3-wire DC PNP / NPN					
0...3,000	80	Prog LO/DO	PNP/NPN	O5G500	$447.80

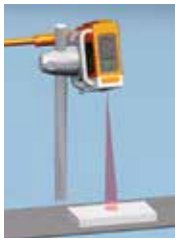
Accessories

Type	Description	Order no.	Price
	Universal angle bracket	E21085	$35.30
	Mounting set for clamp mounting, high-grade stainless steel, diecast zinc clamp	E21211	$17.20
	Mounting set for clamp mounting, high-grade stainless steel	E21212	$31.20
	Clamp for mounting rod, Ø 12 mm, diecast zinc	E20717	$14.00
	Clamp for mounting rod, Ø 12 mm, high-grade stainless steel	E21110	$23.50
	Mounting rod, 100 mm long, Ø 12 mm, M10 thread, stainless steel	E20938	$15.70
	Mounting cube (for aluminium profiles)	E20951	$23.50
	Mounting rod, 200 mm, Ø 12 mm, M10 thread, stainless steel	E20940	$48.20
	Prismatic reflector 48 x 48 mm, plastic	E20744	$33.40
	Prismatic reflector Ø 42 mm, plastic	E20004	$14.00
	Prismatic reflector Ø 80 mm, plastic	E20005	$16.40

Innovative 'Teach Mode' operation

Step 1: OUT-off

Mount and align the sensor in the application. The sensor's visible red light simplifies adjustment. Press the OUT-off (output off) button for two seconds.



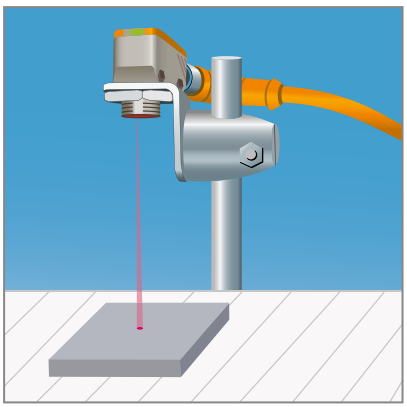
Step 2: OUT-on

Position the object to be detected. Press the OUT-on (output on) button. The sensor is now ready for operation.

Laser sensors

M18 OG-CUBE SERIES - LASERS

Scan to learn more

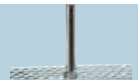


High performance background suppression

The OG background suppression sensor uses diode array technology that enables the sensor to differentiate between the target and the background regardless of background color.

Range [mm]	Housing material	Output	Connection	Order no.	Price
Mid range laser distance sensor - M12 connector					
50...2,000	Plastic	2x PNP/NPN Programmable, **target reflectivity**	M12, 4-pole	**OGD250**	**$609.80**
50...2,000	Plastic	1x PNP/NPN 1x Analogue, **target reflectivity**	M12, 4-pole	**OGD251**	**$653.70**
50...2,000	316 SS	2x PNP/NPN Programmable, **target reflectivity**	M12, 4-pole	**OGD550**	**$741.50**
50...2,000	316 SS	1x PNP/NPN 1x Analogue, **target reflectivity**	M12, 4-pole	**OGD551**	**$785.40**
Mid range laser distance sensor - M12 connector, complementary output					
25...1,500	316 SS	2x PNP outputs	M12, 4-pole	**OGD580**	**$592.20**
25...1,500	316 SS	2x NPN outputs	M12, 4-pole	**OGD581**	**$592.20**
25...1,500	316 SS	1x PNP output, 1x PNP output for **target reflectivity**	M12, 4-pole	**OGD582**	**$783.20**
25...1,500	316 SS	2x PNP outputs, **plastic lens for F&B industry**	M12, 4-pole	**OGD583**	**$783.20**
Short range precision laser distance sensor - M12 connector, complementary output					
25...300	316 SS	2x PNP	M12, 4-pole	**OGD592**	**$805.00**

Accessories

Type	Description	Order no.	Price
	Clamp for Free-standing M10, capscrew, high-grade stainless steel	**E20870**	**$40.70**
	Clamp for mounting rod Ø 12 mm, high-grade stainless steel	**E21206**	**$32.90**
	Mounting rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	**E20938**	**$15.70**
	Prismatic reflector, Ø 80 mm, plastic	**E20005**	**$16.40**
	48 x 48 mm, PMMA, ABS	**E20744**	**$33.40**
	96 x 96 mm, plastic	**E20454**	**$35.70**

HIGH PRECISION LASER SENSOR MEASURES DISTANCES IN THE µM RANGE

Range	Resolution	Outputs	Order No.	Price
30...80 mm	0.01 mm	0.5 2x PNP/NPN (selectable)	**OMH550**	**$1,250.60**
30...80 mm	0.01 mm	0.5 1x PNP/NPN 1x analogue	**OMH551**	**$1,296.20**
50...200 mm	0.05 mm	1 2x PNP/NPN (selectable)	**OMH552**	**$1,250.60**
50...200 mm	0.05 mm	1 1x PNP/NPN 1x analogue	**OMH553**	**$1,296.20**
50...500 mm	0.5 mm	1 2x PNP/NPN (selectable)	**OMH554**	**$1,250.60**
50...500 mm	0.5 mm	1 1x PNP/NPN 1x analogue	**OMH555**	**$1,296.20**

Laser sensors

0G SERIES LASER SENSOR, WITH PRECISE BACKGROUND SUPPRESSION

Range [mm]	Laser class	Outputs	Order no.	Price
M18 design, M12 connector, PNP programmable output				
20...200	1	DC PNP, IP67	OGH700	$549.10
20...200	1	DC NPN, IP67	OGH701	$549.10
200...15m	1	DC PNP, IP67	OGP700	$544.20
60m	1	Transmitter, DC PNP, IP67	OGS700	$422.20
60m	1	Receiver, DC PNP, IP67	OGE700	$290.90

OI SERIES LASER SENSORS WITH BACKGROUND SUPPRESSION

Range [mm]	Laser class	Outputs	Protection	Order no.	Price
M30 design, (with setting ring) M12 connector, complementary output					
30...2,000	2	DC PNP, IO-Link prog	IP67	OID200	$457.50
30...2,000	1	DC PNP, IO-Link prog	IP67	OID250	$457.50
M30 design, M12 connector, complementary output					
30...2,000	2	DC PNP, IO-Link prog	IP69K	OID204	$452.10
30...2,000	1	DC PNP, IO-Link prog	IP69K	OID254	$452.10

O5 SERIES LASER SENSORS

Range [mm]	Laser class	Outputs	Order no.	Price
O5 design, M12 connector, complementary output (class 2 laser)				
30...2,000	2	DC PNP, IO-Link prog	O5D100	$454.00
30...2,000	2	DC NPN, IO-Link prog	O5D102	$454.00
O5 design, M12 connector, complementary output (class 1 laser)				
30...2,000	1	DC PNP, IO-Link prog	O5D150	$454.00

CLASS 1
LASER
PRODUCT
IEC60825-1:2007
IEC60825-1:2014
21CFR PART1040

Class 1
Laser

Class 2
Laser

Accessories

Description	Order No.	Price
Mounting set Ø 30.2 mm, clamp mounting, material die cast zinc	E20873	$19.40
Mounting set Ø 30.2 mm, clamp mounting, high-grade stainless steel	E20874	$40.70
v2 m black, PUR cable	EVC001	$33.60
5 m black, PUR cable	EVC002	$39.20
10 m black, PUR cable	EVC003	$48.20
25 m black, PUR cable	EVC084	$85.20
2 m black, PUR cable	EVC004	$33.60
5 m black, PUR cable	EVC005	$39.20
10 m black, PUR cable	EVC006	$48.20
25 m black, PUR cable	EVC088	$85.20

Laser sensors

O1D SERIES LASER DISTANCE SENSORS

Range [mm]	Laser class	Outputs	Sample rate	Order no.	Price
Long Distance laser sensor					
200...10,000	2	PNP + 4...20 mA / 0...10V	1...50 Hz	O1D100	$817.90
200...10,000	2	DC 1 x PNP	1...5 Hz	O1D101	$817.90
200...10,000	2	2 x PNP or 4...20 mA / 0...10V	1...33 Hz	O1D105	$817.90
300...6,000	1	2 x PNP or 4...20 mA / 0...10V	1...33 Hz	O1D155	$817.90
200...10,000	2	DC PNP, IO-Link prog	1...50 Hz	O1D120	$817.90
Level detection					
200...10,000	2	2 x PNP or 4...20 mA / 0...10V	1...33 Hz	O1D300	$826.00
Retro-reflective distance detection					
75m	2	2 x PNP + 4...20 mA / 0...10V	1...33 Hz	O1D106	$896.80
Use with Retro-Reflector 226 x 262 mm				E21159	$259.10

The sensor's 4-digit alphanumeric display precisely indicates the measured distance. Models available with simple teach function or parameter setup via pushbutton.

Accessories

	Description	Order No.	Price
	O1D Alignment + Mounting adapter SS316L	E2D101	$62.60
	O1D alignment swivel bracket complete with M10-Ø12mm x 130mm long mounting pole, SS316L	E21079	$99.80
	Process flange adapter G1 for O1D	E21224	$334.80
	Plastic cover for O1D	E21133	$65.80
	Glass cover for O1D	E21171	$75.30
	Cooling box / Protective cover	E21248	$636.00
	2 m black, PUR cable	EVC001	$33.60
	5 m black, PUR cable	EVC002	$39.20
	10 m black, PUR cable	EVC003	$48.20
	25 m black, PUR cable	EVC084	$85.20
	2 m black, PUR cable	EVC004	$33.60
	5 m black, PUR cable	EVC005	$39.20
	10 m black, PUR cable	EVC006	$48.20
	25 m black, PUR cable	EVC088	$85.20

Measuring light grids for easy object monitoring in intralogistics.

Photoelectric sensors

Simple object dimensioning in intralogistics without complex programming.

High resolution for precise object detection.

Ease of integration due to a standardised IO-Link interface.

Selective evaluation of beams to determine the dimensions or distances between objects.

IO-Link

IP 65
IP 67

IR

For optimised logistic processes

The measuring light grids are perfectly suitable for monitoring intralogistics processes. An evaluation of how many and which light beams are obstructed is provided and can be used to detect whether the conveyed objects are in the correct and safe transport position.
With a beam distance of 10 millimetres, the height and width of pallets, packages and boxes, too, can be precisely detected.

Precise monitoring with IO-Link

Five different measured values in total can be transmitted via IO-Link using the multi-beam system. The height, position, but also the contour of one or several objects can be derived from these values. What is more, diagnostic information on operating hours are determined and transmitted digitally for needs-based maintenance.

Light grids

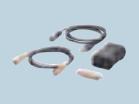
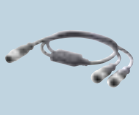
Products

Height Light grids [mm]	Height Measuring range [mm]	Number of beams	Order no.	Price
Measuring light grids with IO-Link				
213	140	15	**OY5100**	**$1,534.80**
663	590	60	**OY5103**	**$3,021.90**
1113	1040	105	**OY5106**	**$4,533.30**
1713	1640	165	**OY5110**	**$6,451.90**
2163	2090	210	**OY5113**	**$7,914.90**
2613	2540	255	**OY5116**	**$9,735.50**

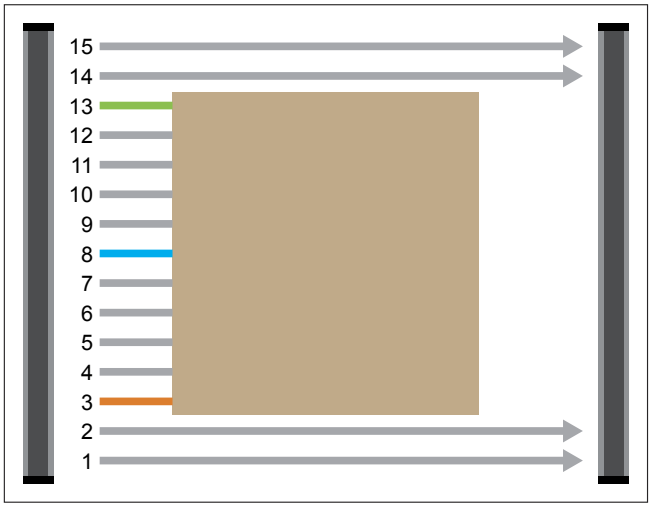
Common technical data		
Operating voltage	[V DC]	24 +/- 20%
Ambient temperature	[°C]	-10...55
Max. range* (distance from transmitter to receiver)	[m]	10
Protection rating, Protection class		IP 65 / IP 67 III
Type of light		infrared
Distance of beams	[mm]	10
Output**		PNP / NPN
Output H = light-on / D = dark-on mode		H / D

* with Y splitter cable EY5053, ** switchable via IO-Link

Accessories

Design	Description	Order no.	Price
Mounting accessories			
	Mounting and fine adjustment unit	**EY3013**	**$97.90**
	Adjustable brackets	**EY3004**	**$61.80**
	Laser adjustment aid	**EY3099**	**$1,045.70**
	USB IO-Link master set	**ZZ1060**	**$614.50**
Connection technology			
	Socket, M12, 5 poles 1 m, black, PUR cable	**EVC196**	**$32.70**
	Socket, M12, 5 poles 2 m, black, PUR cable	**EVC070**	**$36.10**
	Socket, M12, 5 poles 5 m, black, PUR cable	**EVC071**	**$44.50**
	Socket, M12, 5 poles 10 m, black, PUR cable	**EVC072**	**$61.10**
	Y splitter cable Range: 1...10 m	**EY5053**	**$86.50**
	Y splitter cable Range: 0...2 m	**EY5054**	**$86.50**

Functional principle



Multi-beam system with 5 measured values

The five different measured values in total are used to derive the height, position and but also the contour of one or several objects.

IO-Link

FBO	First beam occupied: **3**
LBO	Last beam occupied: **13**
CBO	Central beam occupied: **8**
NBO	Number of beams occupied: **11**
NCBO	Number of consecutive beams occupied: **11**

Multi-code reader with text recognition

Optical identification of 1D/2D codes and text

Scan to learn more

- **Evaluation of various codes and texts in a single image**
- **Easy integration and configuration via IO-Link**
- **Ready to use out of the box, only the codes need to be taught**
- **Reliable detection even in case of extraneous light and demanding surfaces**

Versatile solution for production and logistics

The O2I multicode reader detects 1D and 2D codes as well as text elements. Even in case of multiple codes and text sections or combinations thereof, the O2I provides accurate evaluations in a single image capture. This makes the multicode reader a universally applicable solution for production and logistics processes where codes and text information are to be checked for quality or used for product tracking.

Thanks to the integrated and customisable RGBW lighting, even difficult colour combinations of code / text and background can be read with ease.

Several codes, one image

The auto-find code function of the Vision Assistant automatically recognises several different codes in one image. The user can easily assign these codes in the Vision Assistant.

Identification and verification of text (OCR)

(With new firmware version - from 05/30/2022)

Target / example applications:

- Detection and type designation
- Serial numbers of components
- Expiry date and/or production date
- Product identification

The logic integrated in the ifm VisionAssistant compares the information received from a control system with the code contents read and evaluates them as "OK" or "not OK". The production step is checked by comparing the serial number with a specification.

Based on the contour of the company logo and by tracking the position of the corresponding text, the device reads always the correct texte line - irrespective of the orientation of the product.

Use our free firmware update and equip your device with the new functions.

Camera / Vision solutions

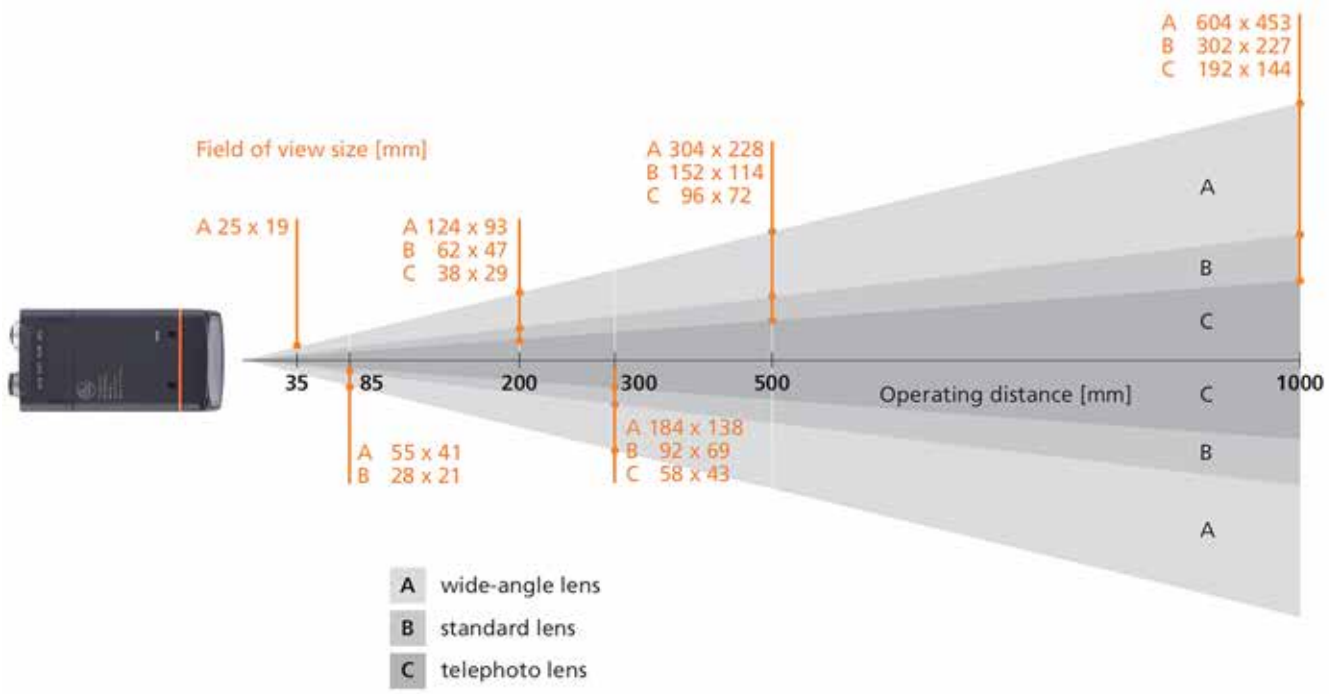
VISION SENSORS FOR RECOGNITION AND ASSESSMENT OF OBJECTS AND SCENES.

Scan to learn more

Type of light	Image Resolution (px)	Inputs / Outputs	A. Standard Lens	B. Wide Angle Lens	C. Telephoto Lens	Price
Ethernet TCP/IP; EtherNet/IP, Operating Distance 5,000mm (max)						
Red light	1,280 x 960	1 / 2	**O2I500**	-	-	**$3,232.10**
Infrared light	1,280 x 960	1 / 2	**O2I501**	-	-	**$3,232.10**
Red light	1,280 x 960	1 / 2	-	**O2I502**	-	**$3,232.10**
Infrared light	1,280 x 960	1 / 2	-	**O2I503**	-	**$3,232.10**
Red light	1,280 x 960	1 / 2	-	-	**O2I504**	**$3,232.10**
Infrared light	1,280 x 960	1 / 2	-	-	**O2I505**	**$3,232.10**

Note: PROFINET equivalents are available on request.

APPLICATION GUIDELINE



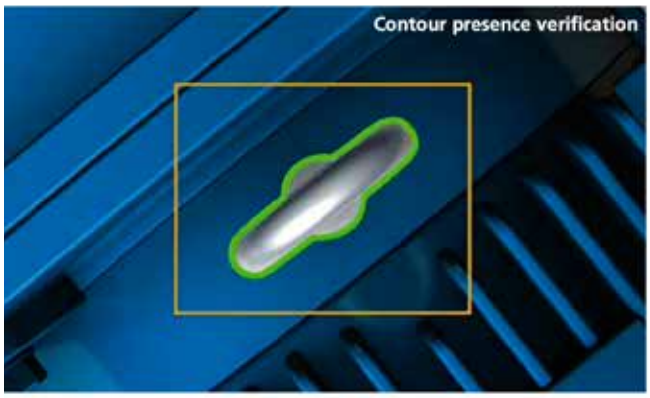
For mounting and connection accessories refer to page 82.

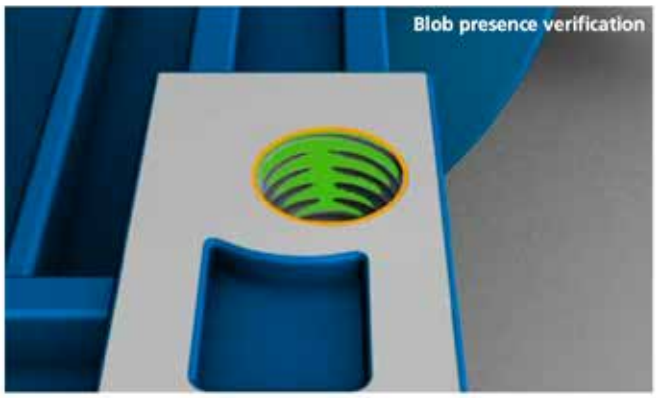
Dualis: Inspect, measure and control objects

2D vision sensors

- **2D vision sensor ensures process and object quality**
- **Surface and contour detection for targeted robot arm navigation**
- **User-friendly software simplifies set-up**
- **Reliable functioning in changing light conditions**

Simply solve your application step by step:





A contour presence verification wizard supports you in solving simple contour presence checks. Even inexperienced users can set up the application within 2 minutes.

Robot sensor calibration
The Robot sensor calibration wizard enables precise control of an object by a robot arm. By means of marker calibration, the coordinate systems of the sensor and the robot are precisely adapted to each other.

Measurement
The wizard for measurement allows determination of contours and surfaces of objects. These can be set in relation to each other and their distance determined as absolute values.

User-defined mode
With the user-defined mode more complex applications with combinations of all functions can be solved.

Simple connection to robots
The ProfiNet version with an L-coded connector for power supply facilitates direct connection to industrial robots. Using the blob presence verification wizard, you can easily set up an application to analyse blobs. Blobs are contiguous pixels that form an area. These areas can be checked for their size, shape or other properties.

Many options for perfect quality control
The Dualis is available with infrared or RGB-W illumination. The latter makes it possible to distinguish objects by their colour. Highly reflective objects can also be detected easily thanks to the polarisation filter.

In strongly fluctuating light conditions, it takes up to 5 images with different exposure times and then selects the optimally illuminated image for quality control. Thanks to the daylight filter, the Dualis is extremely resistant to extraneous light.

Fast replacement thanks to memory stick
The Dualis is equipped with an ifm memory stick on which the parameters and settings are stored. In the event of a device replacement, the stick can be used to easily transfer the data to the new Dualis.

Camera / Vision solutions

VISION SENSORS FOR RECOGNITION AND ASSESSMENT OF OBJECTS AND SCENES

Scan to learn more

Type of light	Field of view size [mm]	Pixel size [mm]	Standard Lens	Wide Angle Lens	Telephoto Lens	Price
Ethernet TCP/IP; EtherNet/IP, Operating Distance 5,000mm (max)						
RGB-W	1,502 x 1,127	1.17	**O2D500**	-	-	**$3,136.40**
Infrared light	1,502 x 1,127	1.17	**O2D520**	-	-	**$3,136.40**
RGB-W	3,004 x 2,253	2.35	-	**O2D502**	-	**$3,136.40**
Infrared light	3,004 x 2,253	2.35	-	**O2D522**	-	**$3,136.40**
RGB-W	960 x 720	0.75	-	-	**O2D504**	**$3,136.40**
Infrared light	960 x 720	0.75	-	-	**O2D524**	**$3,136.40**

Note: PROFINET equivalents are available on request.

APPLICATION EXAMPLES

Object and contour detection

- Checks objects based on defined contours
- Ideal solution for applications where shapes are repeated

Pattern recognition

Object position

Shape detection

Number of objects

Orientation

Sorting tasks

Object inspection and blob analysis

- Analyses objects based on their surface area
- Ideal solution for applications where shape and size vary

Object area

Object contrast

Object width / height

Orientation

Inner / outer radius

Object position

Roundness / rectangularity

Number of objects

Number of holes

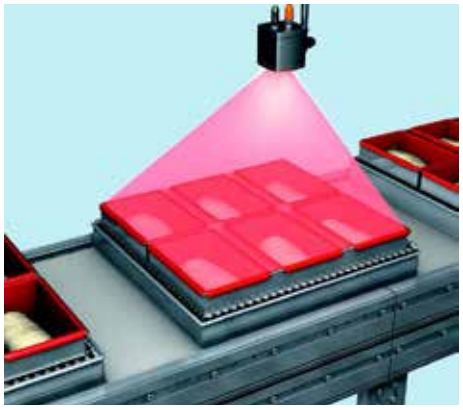
Sorting tasks

For mounting and connection accessories refer to page 82.

Camera/vision solutions

3D vision sensors

Scan to learn more



- **Up to 38500 distance values per measurement for a detailed assessment of the application**
- **Different output functions configurable**
- **Visual assessment of distance, level or volume**
- **Predefined function blocks**
- **Reliable function due to time-of-flight measurement**

Photoelectric 3D sensors have a wide range of applications including the detection of volume, distance and level. They measure the distance between the sensor and the nearest surface point by point using the time-of-flight principle. The units illuminate the scene with an internal or external infrared light source and calculate the distance by means of the light reflected from the surface.

The sensors for industrial applications can be used for completeness checks, volume determination or sorting tasks. Sensors for use in mobile machines offer outstanding shock and vibration resistance.

3D OBJECT RECOGNITION SENSOR = MISSING GOODS; LEVEL DETECTION & VOLUME MEASUREMENT

Material housing	Material front pane / LED window	Max. field of view size [m]	Order no.	Price
PMD 3D sensors · Type O3D · M12 connector				
Aluminium	Gorilla glass / polyamide	2.61 x 3.47	**O3D300**	**$3,256.80**
Aluminium	Gorilla glass / polyamide	3.75 x 5.00	**O3D303**	**$3,256.80**
SS316L	PMMA (acrylic) / polyamide	2.61 x 3.47	**O3D310**	**$3,582.60**
SS316L	PMMA (acrylic) / polyamide	3.75 x 5.00	**O3D312**	**$3,582.60**

Accessories

Type	Description	Order no.	Price
	Mounting set for clamp mounting, Ø 14 mm, stainless steel	**E3D103**	**$77.20**
	Parameter setting cable, 2 m, M12 D-coded / RJ45, cross-link	**E11898**	**$107.20**
	Socket, M12, 2 m PUR cable, 8-pole	**E11950**	**$62.00**
	Socket, M12, 10 m PUR cable, 8-pole	**E11311**	**$125.40**

APP set-up for standard applications

COMMON APPLICATIONS

Volumetric control

International airport conveyer company Beumer use ifm's 3D sensor to calculate the volume of baggage prior to loading onto a plane. This improves space allocation within storage containers designed for the aircraft.

(De)palletisers

Robots help with palletising and depalletising. The 3D sensor detects the exact position and orientation of the packages. The sensor is set up by the user in a few steps via an app.

Completeness monitoring

The 3D sensor detects overfill or underfill of goods. The time of flight technology used allows evaluation of volume, distance or level and provides the data as switch point or via the Ethernet interface.

Packaging industry: Incomplete shipments, never again!

In the packaging industry, automation must be particularly flexible. A great number of different products, outer packaging and packing units is produced and must reach the customer without any damage or missing parts. Using many individual sensors is often a reliable solution, but replacing a product or a unit often takes a lot of time and can be a source of errors. Using only one sensor that handles many tasks at once makes a lot more sense. The 3D sensor ensures flexible detection of different situations. The integration into the controller is quick and intuitive thanks to the unique configuration software, "Vision Assistant": The configuration only requires 7 steps.

Logistics: Optimise your storage space and transport planning

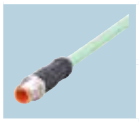
Constantly increasing freight volumes require efficient solutions for logistics and intralogistics. If each centimetre counts in your storage space and transport planning, the 3D sensor can determine the current volume or the correct position of the freight within milliseconds. This accelerates the warehouse operation and reduces the costs. Autonomous logistics systems are used in transport, handling, packaging and sorting processes and for the shipping of goods. The 3D sensor supports, for example, the precise handling of a forklift truck and thereby reduces possible damages while ensuring a constant material flow.

Camera/vision solutions

1D/2D MULTI-CODE READER, WITH TEXT RECOGNITION

Available on request:

Accessories

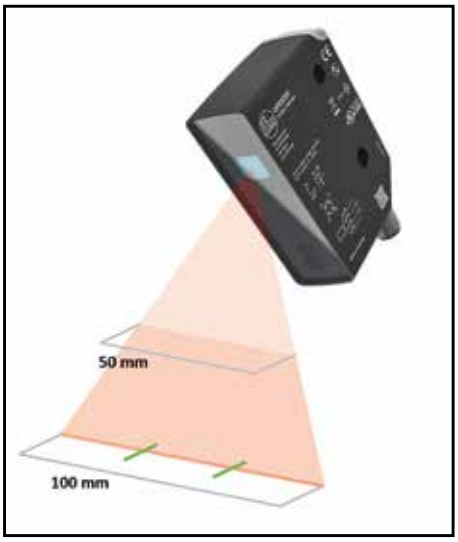
Type	Description	Order no.	Price
	External illumination unit	O2D930	$1,925.40
	Mounting set	E2D501	$72.70
	External illumination unit	O2D917	$1,501.30
	Diffuser for illumination units diffuser window ringlight	E2D202	$418.50
	Mounting set for illumination unit mounting set ringlight / CC	E2D506	$69.50
	Mounting set	E2D500	$67.30
	Y splitter, adapter cable for O2I5xx, trigger sensor, 0.4 m PUR cable	EVC847	$65.20
	Y connection cable for external illumination	EVC848	$65.20
	Rod, 150 mm, Ø 12 mm, stainless steel	E21111	$24.70
	Rod, 200 mm, Ø 12 mm, stainless steel	E21112	$28.40
	Rod, 300 mm, Ø 12 mm, stainless steel	E21113	$34.40
	Clamp linking ring, high-grade stainless steel	E21076	$25.20
	2 m, Industrial Ethernet D-code cable (fieldbus) Green, PUR / Ni Pl brass	EVC893	$32.70
	5 m, Industrial Ethernet D-code cable (fieldbus) Green, PUR / Ni Pl brass	EVC894	$63.90
	Socket, M12, 2 m PUR cable, 8-pole	E80021	$53.60
	Socket, M12, 5 m PUR cable, 8-pole	E11807	$94.20
	Socket, M12, 10 m PUR cable, 8-pole	E11311	$125.40

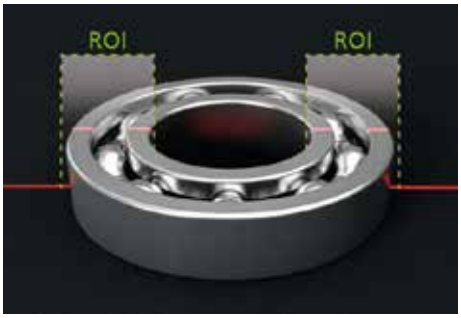
Profiler for precise contour detection

Laser sensor

Scan to learn more

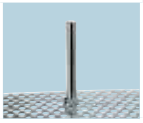
- **Quality control analysis to ensure correct assembly of parts**
- **Intuitive setup; no software required**
- **Two simple modes for optimizing the application**
- **Immunity to extraneous light – no screening or external illumination required**
- **Optional contour visualization via Vision Assistant software to simplify trouble-shooting**





Measuring distance (z direction)	Width of the measuring range (X direction)	Output	Order no.	Price
PMD profiler · M12 connector, Protection Class 1 Laser				
150...300mm	100 (at a maximum distance of 300mm)	PNP/NPN	**OPD100**	**$1,871.60**
150...300mm	100 (at a maximum distance of 300mm) Multiple profiles	PNP/NPN	**OPD101**	**$1,978.10**

Accessories

Type	Description	Order no.	Price
	Mounting set OPD, 12 mm	**E2D118**	**$61.10**
	Rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	**E20938**	**$15.70**
	Mounting cube (for aluminium profiles)	**E20951**	**$23.50**
M12 sockets 5-pole (0.34mm sensor)			
	2 m black, PUR cable	**EVC070**	**$36.10**
	5 m black, PUR cable	**EVC071**	**$44.50**
	10 m black, PUR cable	**EVC072**	**$61.10**
	15 m black, PUR cable	**EVC197**	**$68.90**
	20 m black, PUR cable	**EVC198**	**$78.10**

Configurable LED signal light towers

Signalling, indication and perfect visibility

Scan to learn more

- Highly visible even in bright lighting conditions
- Loud buzzer (90 dB) with selectable melodies
- High protection rating, also with buzzer. Suitable for wet areas
- Simple installation with M30 fixing nut
- Control via IO-Link or digital inputs

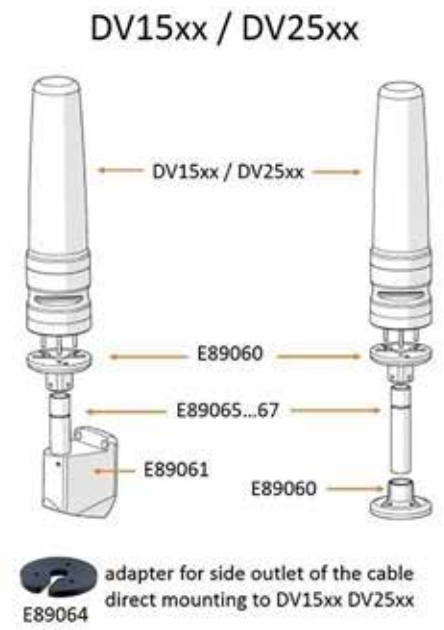
COMPACT SIGNAL LAMPS

Function	Buzzer	Feedback button	IP rating	Order no.	Price
1-segment signal lamp · M12 connectors, Digital inputs / IO-Link					
IO-Link	-	-	IP67	DV2120	$310.70
IO-Link	-	Yes	IP67	DV2121	$364.30
IO-Link	max. 90 dB	-	IP65	DV2130	$362.60
IO-Link	max. 90 dB	Yes	IP65	DV2131	$416.10
3-segment signal lamp · M12 connectors, Digital inputs / IO-Link					
IO-Link	-	-	IP65	DV1300	$534.30
IO-Link	max. 90 dB	Yes	IP54	DV1310	$637.60
IO-Link	-	-	IP65	DV2300	$510.00
IO-Link	max. 90 dB	Yes	IP54	DV2310	$588.90

Function	Inputs	Dimensions Ø x h [mm]	IP rating	Order no.	Price
5-segment signal lamp · M12 connectors, Digital inputs / IO-Link					
Mounting base	6	70 x 344	IP 65	DV1500	$835.10
Mounting base	5	70 x 344	IP 65	DV1501	$835.10
Mounting base and siren	6	70 x 384	IP 54	DV1510	$944.80
Mounting base and siren	6	70 x 384	IP 54	DV1511	$944.80
–	5	70 x 244	IP 65	DV1521	$739.30
–	6	70 x 284	IP 54	DV1530	$848.90
Siren	6	70 x 284	IP 54	DV1531	$848.90
5-segment signal lamp · M12 connectors, IO-Link					
Mounting base	5	70 x 344	IP 65	DV2500	$808.20
Mounting base and siren	5	70 x 384	IP 54	DV2510	$917.10
–	5	70 x 244	IP 65	DV2520	$712.20
Siren	5	70 x 284	IP 54	DV2530	$821.50

Configurable LED signal light towers

FIVE SEGMENT SIGNAL LAMP



Accessories

Type	Description	Order no.	Price
Assembly			
	Mounting base for pole mount, 22 mm / Ø 22 mm	E89080	$67.60
	Standard bracket for pole mounting	E89060	$33.80
	Wall bracket for pole mounting	E89061	$78.30
	Spacer pole 100 mm	E89065	$27.50
	Spacer pole 300 mm	E89066	$37.70
	Spacer pole 800 mm	E89067	$64.80
M12 sockets 4-pole (0.34mm² sensor) IP69K, 4A max			
	2 m black, PUR cable	EVC001	$33.60
	5 m black, PUR cable	EVC002	$39.20
	10 m black, PUR cable	EVC003	$48.20
M12 sockets 5-pole (0.34mm² sensor) IP69K, 4A max			
	2 m black, PUR cable	EVC070	$36.10
	5 m black, PUR cable	EVC071	$44.50
	10 m black, PUR cable	EVC072	$61.10
M12 sockets 8-pole (0.25mm² sensor) IP69K, 4A max			
	5 m black, PUR cable	E12166	$69.50
	10 m black, PUR cable	E12167	$99.40
M12 jumper 8-pole (0.25mm² sensor) IP69K, 4A max			
	5 m black, PUR cable	E11230	$113.00
	10 m black, PUR cable	E12360	$156.20
	Linerecorder Sensor, software for parameter setting and set-up of IO-Link sensors	QA0011	$332.70

FLEXIBLE LED STRIP FOR ILLUMINATION AND SIGNALING

Type	Description	Order no.	Price
	LED-Stripe-RGBW-77mm-IP68	DV1100	$193.70
	LED-Stripe-RGBW-250mm-IP68	DV1101	$247.50
	LED-Stripe-RGBW-500mm-IP68	DV1102	$365.80
	LED-Stripe-RGBW-750mm-IP68	DV1103	$484.20
	LED-Stripe-RGBW-1000mm-IP68	DV1104	$602.50

Safety light curtains & light grids

To the highest safety standard

Scan to learn more

- Compact 28 x 30 mm housing profile
- Up to 12 meter sensing range
- Curtain heights from 160 to 1,810 mm
- Integrated T-slot mounting, hardware included
- Light grids available in 2-, 3- and 4-beam versions
- Highly visible LEDs for setup and status indication
- Industry standard M12 connector

Why choose ifm for your safety products?

Type 4 SIL 3 PLe

- ifm's Type 4 safety light curtains provide an optical solution for protecting plant personnel in unsafe work areas. ifm Type 4 light curtains provide continuous protection, tighter effective aperture range, redundant circuitry and the highest maximum achievable safety level requirements.
- ifm has taken the complexity out of selecting light curtains by offering only Type 4 light curtains.
- ifm offers the optimal resolution models for finger, hand and body protection applications.

type 2 SIL 1 | type 2 SIL 2 | type 4 SIL 3

Perimeter guarding of palletizing area

Corner mirrors allow a single pair of safety light curtains to be used in perimeter guarding applications. Up to three corner mirrors may be used to "bend" the light into shapes that protect multiple sides of the dangerous area.

Palletizer

A palletizer erects a pallet of kegs and places it on a conveyor. Muting sensors are tripped and the pallet is allowed to bypass the light curtain and leave the area. If an operator attempts to enter the palletizing area from the opposite direction, the light curtain will detect his presence and cut power to the machine.

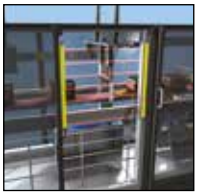
BODY PROTECTION

Type 4 light curtains for body protection

Type	Resolution (mm)	No. of Beams	Protected Area Height (mm)	Protected Area Width (m)	Part No.	Price
Protected area width 0...4 m / 3...12 m - Type 2 / SIL1 / PLc						
	500	2	510	12	OY111S	$1,907.50
	400	3	810	12	OY112S	$2,142.90
	300	4	910	12	OY113S	$2,378.30
Protected area width 0...4 m / 3...12 m - Type 4 / SIL3 / PLe						
	500	2	510	12	OY114S	$2,429.70
	400	3	810	12	OY115S	$2,814.20
	300	4	910	12	OY116S	$3,283.10

Safety light curtains & grids

Type	Resolution (mm)	Protected Area Height (mm)	Protected Area Width (m)	Part No.	Price
HAND Protected area width 0...4 m / 3...12 m - Type 4 / SIL3 / PLe					
	30	160	12	OY041S	$2,672.00
	30	310	12	OY042S	$3,216.20
	30	460	12	OY043S	$3,676.20
	30	610	12	OY044S	$4,209.40
	30	760	12	OY045S	$4,717.90
	30	910	12	OY046S	$5,229.10
	30	1060	12	OY047S	$5,752.80
	30	1210	12	OY048S	$6,263.90
	30	1360	12	OY049S	$6,761.80
	30	1510	12	OY050S	$7,716.50
	30	1810	12	OY454S	$8,296.00
FINGER Protected area width 0...3 m / 1...6 m - Type 4 / SIL3 / PLe					
	14	160	6	OY001S	$3,234.30
	14	310	6	OY002S	$4,038.10
	14	460	6	OY003S	$4,839.70
	14	610	6	OY004S	$5,654.90
	14	760	6	OY005S	$6,467.90
	14	910	6	OY006S	$7,283.40
	14	1060	6	OY007S	$8,109.80
	14	1210	6	OY008S	$8,949.00
	14	1360	6	OY009S	$9,751.40
	14	1510	6	OY010S	$11,164.00
	14	1810	6	OY011S	$12,114.00



Carton erecting

Carton machines can jam during the erecting process. Once the operator breaks the protective area of the safety light curtain, the machine stops to allow the operator to clear the jam.

Accessories

Type	Safety Outputs	Non-safe Outputs	Order no.	Price
Safety relays				
	Safety relay, 2 relay outputs, muting function	Relay	G2001S	$1,239.00
	3 x relay (N.O.) 2 x relay (N.O.) with time delay	1 x relay (N.O.) 1 x relay (N.C.) 1 x PNP with time delay	G1502S	$799.80

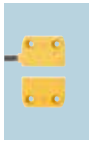
Woodworking Power Saws

Operators are denied access to power saws any time the saws are in motion. Finger protection safety light curtains allow operators to work in close proximity to power saws without risk of injury.

Description	Order No.	Price
Connection Sockets . M12		
Transmitter, 5 m, 5-pole, black, PUR cable	EVC071	$44.50
Transmitter, 10 m, 5-pole, black, PUR cable	EVC072	$61.10
Transmitter, 5 m, 5-pole, black, PUR cable	EVC074	$44.50
Transmitter, 10 m, 5-pole, black, PUR cable	EVC075	$61.10
Receiver, 2 m, 8-pole, black, PUR cable	E11231	$78.80
Receiver, 5 m, 8-pole, black, PUR cable	E11232	$97.00
Receiver, 10 m, 8-pole, black, PUR cable	E12169	$99.40
Receiver, 2 m, 8-pole, black, PUR cable	E11950	$62.00
Receiver, 5 m, 8-pole, black, PUR cable	E11807	$94.20
Receiver, 10 m, 8-pole, black, PUR cable	E11311	$125.40

Safety sensors

MAGNETICALLY-CODED SENSORS

Type	Dimensions [mm]	Range	Connection	Contacts	Order no.	Price
Magnetically coded · actuator is supplied						
	36 x 26 x 13	5 mm	2 m, PVC	2 x NO	**MN200S**	**$116.40**
	36 x 26 x 13	5 mm	M8, 4-pin, integrated	2 x NO	**MN202S**	**$116.40**
	36 x 26 x 13	5 mm	M12, 0.1 m, PVC	2 x NO	**MN203S**	**$116.40**
	36 x 26 x 13	5 mm	6 m, PVC	2 x NO / 1 x NC	**MN205S**	**$127.40**
	88 x 25 x 13	8 mm	2 m, PVC	2 x NO	**MN500S**	**$119.20**
	88 x 25 x 13	8 mm	M8, 4-pin, integrated	2 x NO	**MN502S**	**$119.20**
	88 x 25 x 13	8 mm	M12, 0.1 m, PV	2 x NO	**MN503S**	**$119.20**
	88 x 25 x 13	8 mm	6 m, PVC	2 x NO / 1 x NC	**MN505S**	**$130.40**

- **Activation from different directions aids installation**
- **Conceal behind stainless steel for enhanced tamper prevention**
- **Connect in series and still identify which door is open**
- **Meets highest safety level to ISO 13849-1 and SILCL 3 to IEC 62061**

HIGHEST PROTECTION, CODED RFID SENSORS

Type	Dimensions [mm]	Range	Connection	Coding	Series connection possible	Order no.	Price
RFID-coded · actuator is supplied (right cable entry)							
	72 x 25 x 18	12 mm	M12, 5-pole	coded	–	**MN700S**	**$254.30**
	72 x 25 x 18	12 mm	M12, 8-pole	uniquely coded	•	**MN701S**	**$267.50**
	72 x 25 x 18	12 mm	M12, 8-pole	codable	•	**MN702S**	**$267.50**

(Note: Left cable entry on request)

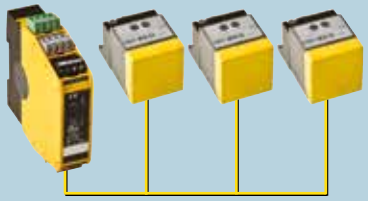
- **Unique actuator coding prevents tampering**
- **Connect up to 32 sensors in series with the safety integrity remaining at the same level**
- **Flashing LEDs monitor sensing area**
- **Programme the sensor as often as desired ensuring easy set-up**

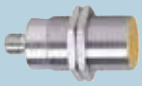
Safety sensors

FAIL-SAFE INDUCTIVE SENSORS

Series connection (up to 10 sensors)

Safety relay *Safety sensors*



Type	Size mm	Enable zone	Order no.	Price
Safety sensors				
	M12, L = 70	0.5...4 mm, nf	**GF711S**	**$228.90**
	M18, L = 90	3...6 mm, nf	**GG505S**	**$320.60**
	M18, L = 60	1...7.5 mm, nf	**GG855S**	**$236.50**
	M18, L = 70	1...8 mm, nf	**GG711S**	**$257.30**
	M18, L = 60	1...8 mm, nf	**GG712S**	**$265.10**
	M18, L = 60	1...11.5 mm, nf	**GG854S**	**$236.50**
	M30, L = 70	1...10 mm, nf	**GI712S**	**$265.30**
	M30, L = 65	1...14.5 mm, nf	**GI855S**	**$243.80**
	M30, L = 65	1...21.5 mm, nf	**GI854S**	**$237.30**
	40 x 40 x 66 mm	10...20 mm, nf	**GM505S**	**$337.00**
	40 x 40 x 66 mm	4...20 mm, nf	**GM705S**	**$596.70**

SAFETY RELAYS

ifm's multi-functional safety relay is compatible with industry standard devices

Type	Safety Outputs	Non-safe Outputs	Order no.	Price
Safety relays				
	2 x relay (N.O.)	1 x PNP	**G1501S**	**$462.00**
	3 x relay (N.O.) 2 x relay (N.O.) with time delay	1 x relay (N.O.) 1 x relay (N.C.) 1 x PNP with time delay	**G1502S**	**$799.80**
	For the safe monitoring of protective systems Areas of application: door monitoring, light grids, E-STOP, two-hand control Monitoring of up to 31 safe AS-i slaves Replacement for a large variety of standard safety relays Can be integrated into the AS-i network at any position		**AC041S**	**$1,501.70**

Ultra-sonic sensors

RANGES VARY FROM 40mm...8m - FOR TRANSPARENT TARGETS

Design	Range [mm]	Output	Setting	Order no.	Price
Diffuse sensor · 3-wire DC, 4-pole, stainless steel					
M18 x 60mm	40...300	PNP, NO/NC Prog	Wire	**UGT500**	**$417.00**
M18 x 60mm	40...300	4...20 mA	Wire	**UGT501**	**$462.60**
M18 x 60mm	40...300	PNP, NO/NC Prog	IO-Link	**UGT524**	**$421.10**
M18 x 60mm	80...1,200	4...20 mA	Wire	**UGT507**	**$462.60**
M18 x 60mm	80...1,200	PNP, NO/NC Prog	IO-Link	**UGT526**	**$421.10**
Diffuse sensor · 4-wire DC, 4-pole, stainless steel					
M18 Cube	40...300	PNP + 4…20 mA	Button	**UGT580**	**$462.60**
M18 Cube	40...300	PNP, NO/NC Prog	Button / IO-Link	**UGT592**	**$466.90**
M18 Cube	60...800	PNP + 4…20 mA	Button	**UGT582**	**$462.60**
M18 Cube	80...1,200	PNP + 4…20 mA	Button	**UGT584**	**$462.60**
M18 Cube	80...1,200	NPN + 4…20 mA	Button	**UGT590**	**$462.60**
M18 Cube	80...1,200	PNP, NO/NC Prog	Button / IO-Link	**UGT594**	**$466.90**
Diffuse sensor · 4-wire DC, 4-pole, IO-Link, PBT plastic					
M18 x 98mm	150...1,600	2 x PNP, NO/NC Prog	Button, IO-Link	**UGT203**	**$505.70**
M18 x 98mm	150...1,600	PNP + 4…20 mA	Button, IO-Link	**UGT204**	**$505.70**
M18 x 98mm	150...1,600	PNP + 0…10 V	Button, IO-Link	**UGT205**	**$505.70**
Diffuse sensor · 4-wire DC, 4-pole, stainless steel					
M18 x 98mm	200...2,200	2 x PNP, NO/NC Prog	Button, IO-Link	**UGT510**	**$563.30**
M18 x 98mm	200...2,200	PNP + 4…20 mA	Button, IO-Link	**UGT511**	**$563.30**
M18 x 98mm	200...2,200	2 x PNP, NO/NC Prog	Button, IO-Link	**UGT512**	**$563.30**
M18 x 98mm	200...2,200	PNP + 4…20 mA	Button, IO-Link	**UGT513**	**$563.30**
M18 x 98mm	200...2,200	PNP + 0…10 V	Button, IO-Link	**UGT514**	**$563.30**
M18 x 98mm	200...2,200	NPN + 4…20 mA	Button	**UGT519**	**$557.90**

Accessories

Type	Description	Order no.	Price
	Mounting set, Ø 18.5 mm clamp mounting, high-grade stainless steel (M10 cap screw)	**E20870**	**$40.70**
	Mounting set, Ø 30.2 mm clamp mounting, high-grade stainless steel	**E20874**	**$40.70**
	Mounting rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	**E20938**	**$15.70**
	Angle bracket for type M30, stainless steel	**E10737**	**$9.30**
	Sound tube, M18, POM	**E23000**	**$61.10**
	Sound tube, M30, POM	**E23007**	**$67.80**
	Sound deflection angle for sensors with a range of ≤ 1,2 m, stainless steel	**E23001**	**$54.40**
	Sound deflection angle for sensors with a range of ≤ 2,2 m, stainless steel	**E23002**	**$60.50**

Process values from sensors at a glance

Multifunction display for analogue signals

Scan to learn more

- **Universal measurement input for various types of signals (current, voltage, frequency, pulses, PT100/PT1000 and thermocouples)**
- **Colour TFT display with extensive digital labelling**
- **Intuitive menu structure with help texts for easy parameter setting**
- **8 adjustable alarms and 2 relay outputs**
- **Low installation depth with standard panel cut-out**

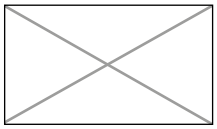
Clear representation

The TFT display offers various possibilities and colours to visualise the measured value. The unit of measurement also displayed, the signal name and the location tag clearly explain the meaning of the displayed value.

The different font and background colours of the definable alarms help to evaluate the measured value. Via the two relay outputs, individual alarms can be transferred to higher-level systems, or simple controls can be realised.

MULTI-FUNCTIONAL TFT DISPLAY FOR IMPULSE SIGNALS, ANALOGUE SIGNALS & TEMPERATURE

Power supply	Inputs	Outputs	Order no.	Price
IP65 multi-function TFT display				
24 VDC	V, mA, kHz, °C, PT100, PT1000, thermocouple	2 x relays	**DX1063**	**$532.90**



Panel cut-out

background

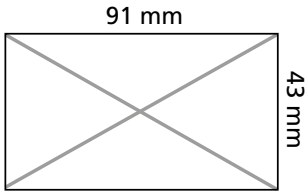
45mm

Application diagrams

CONTROL DEVICES FOR DETECTION & PROCESSING OF ANALOGUE VALUES

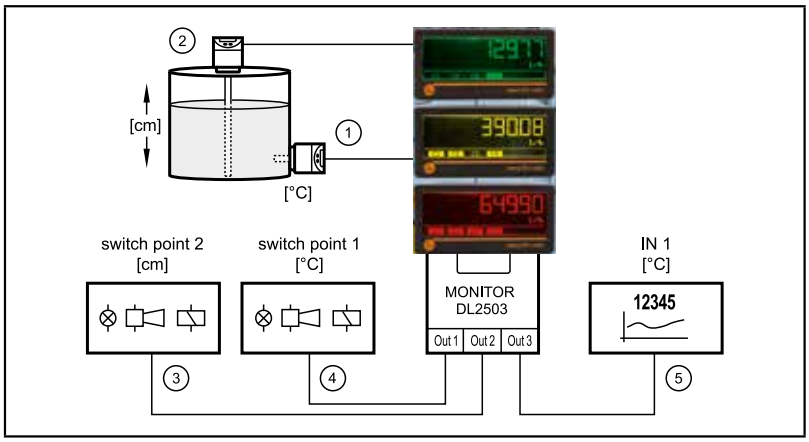
Nominal voltage [V]	Inputs	Outputs	Order no.	Price
Multifunction display with IO-Link · touch display and clear text				
115 / 230 AC; 24 DC	2 x analogue	4	**DX2045**	**$917.10**
24 DC	2 x analogue	4	**DX2055**	**$859.20**
Multifunctional analogue display				
115 / 230 AC 18...30 DC	2 x analogue	-	**DX2041**	**$708.80**
115 / 230 AC 18...30 DC	2 x analogue	4	**DX2042**	**$772.90**
115 / 230 AC 18...30 DC	2 x analogue	4 + 4...20 mA	**DX2043**	**$846.90**
Multifunctional display: speed, time, counter				
115 / 230 AC 24 DC	2 x pulse	4 transistor, 1x analogue	**DX2022**	**$701.00**

FILTER MONITORING SYSTEM FOR INDUSTRIAL PLANTS



Panel cut-out

TRANSMITTER - SYSTEM LAYOUT



Principle 2CH mode
Limit value monitoring of 2 independent, different process values (here e.g. temperature [°C] and level [cm])

1: Temperature sensor [°C]
2: Level sensor [cm]
3: Switching output 2, here limit value 2 for level [cm]
4: Switching output 1, here limit value 1 for temperature [°C]
5: Analogue output for display, evaluation or recording of IN1, here [°C]

Process displays

EVALUATION FOR ANALOGUE SIGNALS

Scan to learn more

- **Monitoring, analysis and offsetting of two analogue values**
- **Ideal for determining differential values, e.g. pressure, flow, level or temperature values**
- **Limit value indication via two separate relay outputs**
- **Extensive and convenient parameter setting via IO-Link**
- **Clearly visible OLED display for actual value indication and parameter setting**

Nominal voltage [V]	Inputs	Outputs	Order no.	Price
2-channel analogue threshold relay for analogue standard signals				
110...240 AC, 24 DC	4...20 mA or 0...10 V	IO-Link, 2 x relay, 1 x analogue	D L 3 0 0 3	POA
110...240 AC, 24 DC	2 x 0/4...20 mA transmitters	2x switching, 1x 0/4...20 mA	D L 2 5 0 3	$977.50

POWER SUPPLY WITH SWITCHING CAPABILITY

Nominal voltage [V]	Inputs	Outputs	Order no.	Price
Power supply and signal evaluation				
110...240 AC, 24 DC	2x PNP/NPN	2x relay	D N 0 2 2 0	$375.30

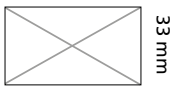
IO-LINK MASTER DISPLAY

Type	Length	Order no.	Price
128 x 128 resolution, 1.44" TFT LED display			
	IO-Link display · Connection to master · Assignment of the values displayed by the controller ·	E30391	$288.80
	IO-Link inline display · Connection between master and sensor Visualisation of the values of the connected sensor	E30430	$340.20
	IO-Link display · Shows all sensor process values connected to a master	E30443	$452.30

Accessories

Type	Length	Order no.	Price
	DIN rail clip	E 3 0 4 2 9	$20.20

LOOP POWERED DISPLAY FOR 4...20MA SIGNALS



Panel cut-out

Power Supply	Input / output	Display range	Order no.	Price
Loop powered display for 4...20mA signals				
Analogue signal	4...20 mA loop powered	-1,999...1,999	D X 1 0 4 1	$358.70

Pressure sensors and mounting accessories

Selection Guide

Scan to learn more

Contents	Applications										
	Sensor type	Measuring range [bar]	Medium temperature [C]	Integrated temperature measure-ment	Hydaulic applications	Ship-building (DNV-GL approval)	Machine tools	Hydrous media	Gas-eous media	Viscous media and media containing solids	Pages
With display for industrial applications	PN PE PG24	-1...600 -1...250 -1...400	-25...80 -25...80 -25...80		✔ ✔	✔ ✔	✔ ✔ ✔	✔ ✔ ✔	✔		98 99
Without display for industrial applications	PA PK PT/PU PS PV	-1...600 0...400 -1...600 0...1 -1...600	-25...90 -25...80 -40...90[4)] -10...85 -40...90	 ✔	✔ ✔ ✔ ✔	 ✔ ✔ 	✔ ✔ ✔ ✔	✔ ✔ 	 ✔ ✔ ✔		101 100 99 108 100
Flush for industrial applications	PL54 PL15	0...400 -1...160	-25...90 -25...110	 ✔			✔ ✔	✔ ✔		✔ ✔	100 -
For pneumatic applications	PQ3 PQS/PQC	-1...10 -1...16	0...60 0...60				✔ ✔		✔ ✔		101 101
For mobile applications	PT/PU	0...600	-40...125		✔				✔		99
With display for hygienic applications	PG27/28 PI	-1...25 -1...100	-25...125 -25...150/200	 ✔				✔ ✔	✔ ✔	✔ ✔	99 95
Without display for hygienic applications	PM	-1...100	-25...150	✔				✔	✔	✔	94
Process adapters and mounting accessories for pressure sensors											96
Calibration*											

* German factory calibration must be ordered separately when placing a pressure sensor PO
This service will result in 4 - 6 weeks delivery delay
For local calibration by a certified laboratory, we can provide partner information on request

Pressure Sensor technology

WHY CERAMIC CAPACITIVE CELLS ARE BEST FOR MOST APPLICATIONS

After >50 years of R&D in pressure sensor technology, ifm electronic now offer the most advanced electronic sensor technology available.

ifm pressure sensors operate in virtually every application. With the majority working in non-Ex rated Industrial plants - monitoring Hydraulics, Pneumatic, Water and Hygienic F&B applications. While withstanding harsh and often rapid fluctuations in process temperature & pressure.

ifm leads the development of pressure sensors utilizing Ceramic Capacitive diaphragms. With advanced electronic circuitry, ifm now produce and offer extremely high accuracy pressure sensors, matching traditional liquid filled types, while overcoming most application issues experienced in daily use of thin metal diaphragm types. These issues include hydraulic pressure spikes, metal corrosion, vacuum effects & surface abrasion.

Following is a summary of the pros & cons of each technology, to assist optimum selection for your application:

PROS AND CONS OF DIFFERENT MEASURING CELL TECHNOLOGY

Appropriate application

1. Pressure Surge resistance

2. Corrosion resistance

3. Abrasion resistance

4. Vacuum Proof

Ceramic-capacitive measuring cell

PM15, PM17, PI27, PI17, PG27, PN2, PL5, PA3

Advantages	Disadvantages
• Good chemical resistance (99,9% ceramic)	• Separate sealing required
• High pressure rating	
• Long term stability	
• No tiring of ceramic material	
• Less temperature influence	

Thick film strain gauge measuring cell

Stainless steel measuring cell: PC, PT, PV with 22 mm housing, PK

Advantages	Disadvantages
• No sealing required	• Temperature compensation required
• High burst pressure	
• Stainless steel membrane	

Piezoresistive measuring cell

PN78, PQ, PS3, PS4:

Advantages	Disadvantages
• Mass product, therefore cost-effective	• Temperature adjustment required
	• Only for gaseous media, as the measuring element is open
	• Lower pressure rating

Thin film measuring cell

PC, PT, PU, PV with 19 mm housing, PN new generation >100 bar

Advantages	Disadvantages
• Good repeatability	• Lower pressure rating
• No sealing required	
• Small size	

Ceramic Pressure Sensors/Viscous Media

PM SERIES - G1/2 CONNECTION - COMES WITH INTEGRATED TEMPERATURE MEASUREMENT VIA IO-LINK

Type	Factory setting measuring range relative pressure [bar]	Measuring range relative pressure [bar]	$P_{overload}$ max. [bar]	Order no.	Price
G 1/2 male sealing cone, 4...20 mA, IO-LINK					
	0...40	-1...40	200	PM1543	$1,028.10
	0...25	-1...25	160	PM1503	$1,028.10
	0...16	-1...16	110	PM1514	$1,028.10
	0...10	-1...10	75	PM1504	$1,028.10
	0...6	-1...6	50	PM1515	$1,028.10
	0...4	-1...4	40	PM1505	$1,028.10
	0...1	-0.5...1	40	PM1507	$1,033.30
	0...2.5	-0.125...2.5	30	PM1506	$1,028.10

PM SERIES - G1 CONNECTION

IP 67 IP 68 IP 69 K

High-grade stainless steel

Type	Factory setting measuring range relative pressure [bar]	Measuring range relative pressure [bar]	$P_{overload}$ max. [bar]	Order no.	Price
Aseptoflex Vario, 4...20 mA, IO-Link					
	0...25	-1...25	100	PM1703	$1,063.20
	0...16	-1...16	75	PM1714	$1,063.20
	0...10	-1...10	50	PM1704	$1,063.20
	0...6	-1...6	30	PM1715	$1,063.20
	0...4	-1...4	30	PM1705	$1,063.20
	0...2.5	-0.125...2.5	20	PM1706	$1,063.20
	0...1.6	-0.1...1.6	15	PM1717	$1,063.20
	-1...1	-1...1	10	PM1709	$1,094.60
	0...1	-0.05...1	10	PM1707	$1,094.60
	0...400 mB	0...400 mB	6	PM1718	$1,094.60
	0...250 mB	12.5...250 mB	6	PM1708	$1,094.60
	0...100 mB	5...100 mB	4	PM1789	$1,094.60

For process adapters and accessories see pages 96

PM WITH WELDED 1.5" TRI-CLAMP CONNECTION

Tri Clamp DN25...DN40 (1...1,5")

IP 67 IP 68 IP 69 K

High-grade stainless steel

Type	Factory setting measuring range relative pressure [bar]	Measuring range relative pressure [bar]	$P_{overload}$ max. [bar]	Order no.	Price
1.5" Tri-Clamp, 4...20 mA, IO-Link					
	0...40	-1...40	100	PM1143	$1,062.10
	0...25	-1...25	100	PM1103	$1,062.10
	0...16	-1...16	75	PM1114	$1,062.10
	0...10	-1...10	50	PM1104	$1,062.10
	0...6	-1...6	30	PM1115	$1,062.10
	0...4	-1...4	30	PM1105	$1,062.10
	0...2.5	-0.125...2.5	20	PM1106	$1,062.10
	0...1.6	-0.1...1.6	15	PM1117	$1,062.10
	0...1	-0.05...1	10	PM1107	$1,093.90
	0...400 mB	0...400 mB	6	PM1118	$1,093.90
	0...250 mB	12.5...250 mB	6	PM1108	$1,093.90

Ceramic Pressure Sensors/Viscous Media

PG SERIES - G1 CONNECTION

IP 67 IP 68 IP 69 K | High-grade stainless steel | Vibration and shock resistant

Type	Factory setting measuring range relative pressure [bar]	Measuring range relative pressure [bar]	$P_{overload}$ max. [bar]	Order no.	Price
Programmable PNP/NPN NO/NC + 4...20 mA / 20...4mA, -25...+125° C					
	0...25	-1...25	100	PG2793	$1,469.40
	0...10	-1...10	50	PG2794	$1,469.40
	0...4	-1...4	30	PG2795	$1,469.40
	0...25	-0.124...2.5	20	PG2796	$1,469.40
	-1...1	-1...1	10	PG2799	$1,509.40
	0...1	-0.05...1	10	PG2797	$1,509.40
	0...250 mB	-12.4...250 mB	10	PG2798	$1,509.40
	0...100 mB	-5...100 mB	4	PG2789	$1,509.40

- PI17 series
- Highest resolution sensor, 32 bit via IO-Link
- Accuracy +/- 0.2% of span
- 150°c continuous temperature rating

PI SERIES - G1 CONNECTION

Type	Factory setting measuring range [bar]	Measuring range [bar]	Order no.	Price	Order no.	Price
1 switching output and 1 analogue output 4...20 mA / 20...4 mA G 1 male Aseptoflex Vario						
	0...25	-1...25	PI1703	$1,334.10	PI2793	$1,469.20
	0...16	-1...16	PI1714	$1,334.10	PI2714	$1,469.20
	0...10	-1...10	PI1704	$1,334.10	PI2794	$1,469.20
	0...6	-1...6	PI1715	$1,334.10	PI2715	$1,469.20
	0...4	-1...4	PI1705	$1,334.10	PI2795	$1,469.20
	0...2.5	-0.124...2.5	PI1706	$1,334.10	PI2796	$1,469.20
	0...1.6	-0.1...1.6	PI1717	$1,334.10	PI2717	$1,469.20
	-1...1	-1...1	PI1709	$1,374.10	PI2799	$1,512.20
	-0.05...1	-0.05...1	PI1707	$1,374.10	PI2797	$1,512.20
	0...400 mB	-50...400 mB	PI1718	$1,374.10	-	-
	0...250 mB	-12...250 mB	PI1708	$1,374.10	PI2798	$1,512.20
	0...100 mB	-5...100 mB	PI1789	$1,374.10	PI2789	$1,512.20

PI SERIES - FOR HIGH TEMPERATURE APPLICATIONS

For process adapters and accessories *see pages 96*

Type	Factory setting measuring range relative pressure [bar]	Measuring range relative pressure [bar]	$P_{overload}$ max. [bar]	Order no.	Price
1 switching output and 1 analogue output 4...20 mA / 20...4 mA Clamp 1.5" (200°)					
	0...25	-1...25	80	PI2203	$1,797.10
	0...10	-1...10	50	PI2204	$1,797.10
	0...4	-1...4	30	PI2205	$1,797.10
	0...2.5	-0.0124...0.25	20	PI2206	$1,797.10
	-1...1	-1...1	10	PI2209	$1,849.20
	0...1	-0.05...1	10	PI2207	$1,849.20

Pressure sensor mounting accessories

Process adapters

Adapter accessories

Process adapters

	Device connection	Process connection	Sealing	For sensor type	Order no.	Price
	High-grade stainless steel adapter (316L/1.4435) for hygienic applications					
1	G 1 male Aseptoflex Vario	Clamp 1 - 1.5"	sealing ring	PG27xx, PI27xx	E33201	$119.40
			sealing ring		E33208	$128.70
			metal-to-metal		E33701	$105.40
		Clamp 2"	sealing ring		E33202	$139.60
			sealing ring		E33209	$147.80
			metal-to-metal		E33702	$126.10
2		pipe fitting DN40 (1.5")	sealing ring		E33212	$119.40
			metal-to-metal		E33712	$111.20
		pipe fitting DN50 (2")	sealing ring		E33213	$139.60
			metal-to-metal		E33713	$126.10
3		G 1/2	sealing ring		E30131	$142.20
	High-grade stainless steel welding adapters for hygienic applications					
4	G 1 male Aseptoflex Vario	welding adapter D50	sealing ring	PG27xx, PI27xx	E30122	$96.20
					E30130	$122.40
	G 1 male Aseptoflex Vario sealing cone	welding mandrel			E30435	$90.20
	Adapter accessories for hygienic applications					
5	G 1 male Aseptoflex Vario	sealing plug	sealing ring	PG27xx, PI27xx	E30128	$105.60
		FKM O-ring			E30123	$10.50
		PEEK ring			E30124	$39.40
	Hygienic screw-in adapter for process sensors					
6	G 1/2 clamp	sealing plug	metal-to-metal	PL15	E43917	$111.50

INDUSTRIAL PRESSURE SENSOR MOUNTING ACCESSORIES

Process adapters

Accessories

	Device connection	Process connection	Material	Order no.	Price
	Adapters for industrial applications -For sensor type PN, PA with internal thread				
7	G 1/4	G 1/4	high-grade stainless steel (316L/1.4404) FKM	E30143	$40.70
	G 1/4	G 1/2	stainless steel (303/1.4305), FPM (Viton)	E30050	$44.80
	G 1/4	G 1/2	high-gr. stainl. steel (316L/1.4404) FPM (Viton)	E30002	$57.90
	G 1/4	M20 x 1.5	stainless steel (303/1.4305), FPM (Viton)	E30010	$43.00
	G 1/4	1/4" NPT	high-grade stainless steel (316Ti/1.4571)	E30058	$52.30
	G 1/4	1/2" NPT	high-grade stainless steel (316L/1.4404)	E30133	$61.10

	Description	For sensor type	Order no.	Price
	Accessories for industrial applications			
8	Damping screw for PN with G 1/4 internal thread	PN	E30419	$22.60
	Protective cover		E30420	$11.00
	Angle bracket		E30421	$14.80
9	Damping screw for sensors with G 1/4 external thread	PN, PK, PA35xx	E30057	$14.40
	Syphon G 1/4		E30140	$55.90
	Syphon G 1/2	PG24	E30141	$91.20
	Protective cover	PK	E30094	$11.60
	Cable clamp fastener	PS	E30399	$55.70
	Filter element		E30400	$15.10
	Splitter box with ventilation and terminal block		E30401	$204.80
	DIN rail clip	PQ	E37340	$14.40
	Adapter R 1/8 - R 1/8 rotatable		E37350	$46.90

Industrial Pressure Sensors

IFM CERAMIC CAPACITIVE MEASURING CELL - ADVANCED TECHNOLOGY

PN Series

Large bright LEDs can be seen from all angles indicate output status

2-color digital display is easier to see from a distance

Simple pushbutton setup allows the sensor to be parameterized in less than 5 minutes with new scroll and enter buttons

Robust 316 stainless steel construction

Laser etched part numbers will not fade for future referencing

QR code for quick access to technical data and installation instructions

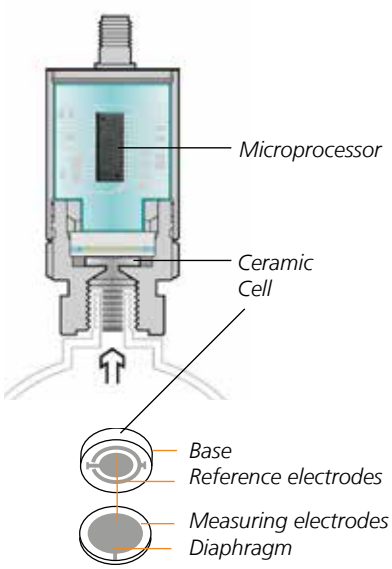
Sensor can be rotated 345° for optimum visibility after installation

Atmospheric reference is achieved via the electrical connection for high IP67 rating

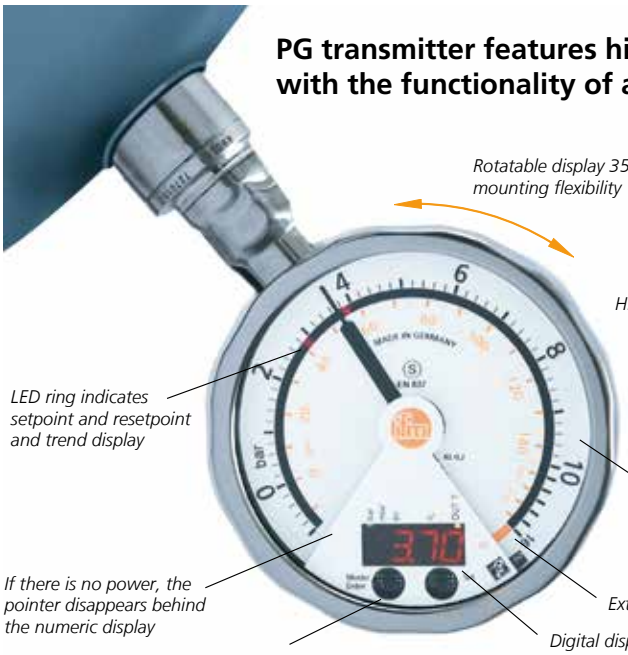
Process connection, G1/4" = 1/4" PSP-P

Ceramic diaphragm withstands pressure spikes

PA & PP Series



PG transmitter features highly visible gauge with the functionality of a pressure sensor



Rotatable display 350° for mounting flexibility

High protection rating (IP67 / IP69K)

Does not require damping liquid

LED ring indicates setpoint and resetpoint and trend display

Analog display with scaling in bar and psi

If there is no power, the pointer disappears behind the numeric display

Extended display range

Digital display – bright LED display (no LCDs)

Application parameters are setup via optical touch-screen pushbuttons

High-precision measurement

ifm's PG Series pressure family offers a 3-in-1 solution for pressure applications. The PG is a transmitter, switch and gauge in a light-weight, stainless steel housing.

Pressure sensors type PN & PY

UNIVERSAL APPLICATION AREAS: HIGH OVERLOAD, IP 67 IN PRESSURE RANGES OF -1...600 BAR.

- **Red - green ranges: "Good ranges" or switching states can be identified quickly via the display colour.**
- **Quick setting: Easy to use via 3 pushbuttons.**
- **Optimum orientation: Process connection rotatable by approx. 345°.**

Measuring Cell	Process connection	Pressure range [bar]	$P_{overload}$ max. [bar]	Order no. G 1/4 female	Price
M12 connector · output function programmable, 2 x NO/NC					
Stainless steel chamber	G 1/4" female	0...600	800	**PN7160**	**$796.40**
Stainless steel chamber	G 1/4" female	0...400	800	**PN7070**	**$796.40**
Stainless steel chamber	G 1/4" female	0...250	500	**PN7071**	**$773.60**
Ceramic capacitive	G 1/4" female	0...100	300	**PN7092**	**$773.60**
Ceramic capacitive	G 1/4" female	0...25	150	**PN7093**	**$773.60**
Ceramic capacitive	G 1/4" female	-1...10	75	**PN7094**	**$773.60**
Ceramic capacitive	G 1/4" female	0...2,5	20	**PN7096**	**$773.60**
Ceramic capacitive	G 1/4" female	0...1	10	**PN7097**	**$796.40**
Ceramic capacitive	G 1/4" female	-1...1	20	**PN7099**	**$796.40**
M12 connector · output function programmable, 1 x NO/NC + 4...20 mA/0...10V					
Stainless steel chamber	G 1/4" female	0...600	800	**PN2160**	**$955.80**
Stainless steel chamber	G 1/4" female	0...400	800	**PN2070**	**$955.80**
Stainless steel chamber	G 1/4" female	0...250	500	**PN2071**	**$927.90**
Ceramic capacitive	G 1/4" female	0...100	300	**PN2092**	**$927.90**
Ceramic capacitive	G 1/4" female	0...25	150	**PN2093**	**$927.90**
Ceramic capacitive	G 1/4" female	-1...10	75	**PN2094**	**$927.90**
Ceramic capacitive	G 1/4" female	-0.125...2,5	20	**PN2096**	**$927.90**
Ceramic capacitive	G 1/4" female	-0.05...1	10	**PN2097**	**$955.80**
Ceramic capacitive	G 1/4" female	-1...1	10	**PN2099**	**$955.80**
Ceramic capacitive	G 1/4" female	-0.5...0.5	10	**PN2169**	**$955.80**

NOTE: For gases and pressures >25 bar ONLY use Stainless Steel Chamber sensors

Designed for refrigeration applications (EPDM seals)					
Ceramic capacitive	G 1/4" female	0...100	300	**PE2092**	**$946.40**
Ceramic capacitive	G 1/4" female	-1...25	150	**PE2093**	**$946.40**
Ceramic capacitive	G 1/4" female	-1...10	75	**PE2094**	**$946.40**

Type	Description	Order no.	Price
	Damping screw, for surge pressure protection. For PN / PA sensors with G1/4 fittings	**E30419**	**$22.60**

Pressure sensors type PG, PT & PV

PY SERIES - PRECISE MONITORING OF HOMOGENISER PROCESSES

Type	Process Connection	Measuring range [bar]	$P_{overload}$ max. [bar]	$P_{bursting}$ min. [bar]	Order no.	Price
M12 connector · Output function 2 x NO / NC prog or 1 x normally NO / NC prog + 1 x analogue (4...20 mA / 0...10 V; scaleable 1:4)						
	–	0...400	600	1000	**PY9070**	**$2,951.50**
	Clamp fitting	0...600	800	1200	**PY9060**	**$2,076.60**

PG SERIES - G1/2 (BSP) CONNECTION

Type	Factory setting measuring range relative pressure [bar]	Measuring range relative pressure [bar]	$P_{overload}$ max. [bar]	Order no.	Price
Programmable PNP/NPN NO/NC + 4...20 mA / 20...4mA					
	0...400	0...400	800	**PG2450**	**$1,135.00**
	0...250	0...250	600	**PG2451**	**$1,103.40**
	0...100	0...100	300	**PG2452**	**$1,103.40**
	0...25	-1...25	100	**PG2453**	**$1,103.40**
	0...10	-1...10	50	**PG2454**	**$1,103.40**
	0...4	-1...4	30	**PG2455**	**$1,103.40**
	0...2.5	-0.125...2.5	20	**PG2456**	**$1,103.40**
	0...1	-0.05...1	10	**PG2457**	**$1,135.00**
	0...250 mB	-12.5...250 mB	6	**PG2458**	**$1,135.00**
	0...100 mB	-5...100 mB	4	**PG2489**	**$1,135.00**

COMPACT FIXED RANGE PRESSURE TRANSMITTERS WITHOUT DISPLAY

Pressure transmitters type PT

Pressure transmitters with fixed measuring range.

Fast response time of 1 ms.

Stainless steel measuring cell without any seal.

Type	Measuring range Relative pressure [bar]	$P_{overload}$ max. [bar]	Order no.	Price
Gauge pressure transmitter, G1/4 Connection Output function 4...20 mA, Loop power				
	0...600	1,500	**PT5460**	**$269.80**
	0...400	1,000	**PT5400**	**$269.80**
	0...250	625	**PT5401**	**$262.10**
	0...160	400	**PT5412**	**$262.10**
	0...100	250	**PT5402**	**$262.10**
	0...40	100	**PT5443**	**$262.10**
	0...25	65	**PT5403**	**$262.10**
	0...16	40	**PT5414**	**$262.10**
	0...10	25	**PT5404**	**$262.10**
	0...6	15	**PT5415**	**$262.10**
	-1...10	25	**PT5494**	**$262.10**

Pressure sensors type PL, PT, PK & PQ

PV SERIES - PRESSURE SENSOR WITH INTEGRATED TEMPERATURE MEASUREMENT

Pressure sensors type PV

Programmable IO-Link pressure sensor with switching outputs. Stainless steel measuring cell without any seal IO-Link.

Type	Measuring range [bar]	$P_{overload}$ max. (static) [bar]	$P_{bursting}$ min. [bar]	Order no.	Price
Pressure / Temperature Sensor – 2x IO-Link Outputs, G 1/4" Male					
	0...600	1,500	2,500	PV8060	$354.80
	0...400	1,000	1,700	PV8000	$354.80
	0...250	625	1,200	PV8001	$345.60
	0...100	250	1,000	PV8002	$345.60
	0...60	150	900	PV8023	$345.60
	-1...25	65	600	PV8003	$345.60
	-1...10	25	300	PV8004	$345.60

PL SERIES - G1/2 FLUSH CONNECTION

Pressure sensors type PL

Programmable IO-Link pressure sensor with switching outputs.

Robust ceramic flush measuring cell.

Type	Measuring range factory setting [bar]	Measuring range relative pressure [bar]	Order no.	Price
Pressure / Temperature Sensor – 2x IO-Link Outputs, G 1/2" Male				
	0...160	0...160	PL1512	$658.00
	0...100	0...100	PL1502	$658.00
	0...60	0...60	PL1523	$658.00
	0...40	-1...40	PL1543	$658.00
	0...25	-1...25	PL1503	$658.00
	0...10	-1...10 (EPDM seal)	PL1604	POA
	0...16	-1...16	PL1514	$658.00
	0...10	-1...10	PL1504	$658.00
	0...6	-1...6	PL1515	$658.00
	0...2.5	-0.125...2.5	PL1506	$658.00

Note: EPDM for ammonia refrigerant applications.

PL SERIES - G1/4 FLUSH CONNECTION

Type	Measuring range [bar]	$P_{overload}$ max. (static) [bar]	$P_{bursting}$ min. [bar]	Order no.	Price
Pressure / Temperature Sensor – 2x IO-Link Outputs, G 1/4" Male					
	0...400	1,000	1,700	PL5400	$583.50
	0...250	625	1,200	PL5401	$583.50
	0...160	400	1,100	PL5412	$583.50
	0...100	250	1,000	PL5402	$583.50
	0...60	150	900	PL5423	$583.50

PK SERIES - PRESSURE SWITCH

Pressure sensors type PK

Easy switch point adjustment via two setting rings allowing optimum read-out.
Mechanical locking prevents inadvertent switch point manipulation.
Stainless steel measuring cell without any seal.

Type	Measuring range Relative pressure [bar]	$P_{overload}$ max. (static) [bar]	Order no.	Price
Adjustable Pressure Switch, M12 connector · output adjustable. 2 x NO, PNP				
	0...400	600	PK7520	$428.00
	0...250	400	PK7521	$416.40
	0...100	200	PK7522	$416.40
	0...10	25	PK7524	$416.40
M12 connector · output adjustable. 2 x NO/NC, PNP (complimentary)				
	0...400	600	PK6520	$428.00
	0...250	400	PK6521	$416.40
	0...100	200	PK6522	$416.40
	0...25	60	PK6523	$416.40
	0...10	25	PK6524	$416.40

ifm eshop registration

Pressure sensors type PP & PA

PP SERIES

Pressure sensors type PP
Pressure sensors with fixed measuring range.
High resistance to overload due to ceramic measuring cell.

Type	Measuring range Relative pressure [bar]	$P_{overload}$ max. [bar] static	Order no.	Price
Pressure sensor, fixed range, G1/4 (female) , 2x IO-Link Outputs.				
	0...400	1,000	PP7550	$527.00
	0...250	850	PP7551	$512.10
	0...100	650	PP7552	$512.10
	0...25	350	PP7553	$512.10
	0...10	150	PP7554	$512.10

PA SERIES

Pressure transmitters type PA
Pressure transmitters with fixed measuring range.
High resistance to overload due to ceramic measuring cell.

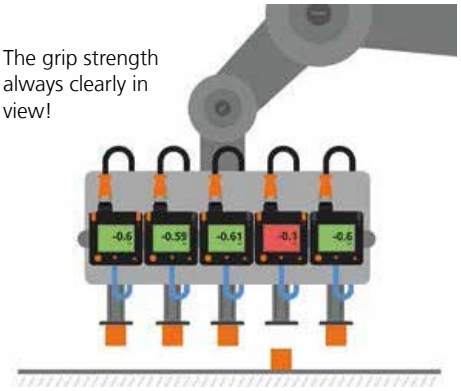
Note: PA3589 is male connection

Type	Measuring range Relative pressure [bar]	$P_{overload}$ max. [bar] static	Order no.	Price
Pressure transmitter, fixed range, G1/4 (female) , Output function 4...20 mA				
	0...10	75	PA3024	$571.70
	0...2.5	20	PA3026	$571.70
	-1...0	10	PA3029	$588.30
	0...1	10	PA3027	$588.30
	0...0.25	6	PA3028	$643.60
	0...0.1	4	PA3589*	$649.60*

Pneumatic pressure sensors

PQ SERIES - IO-LINK PRESSURE TRANSMITTER & SWITCH

The grip strength always clearly in view!



The current status can be identified quickly and clearly due to the red / green colour change.

Type	Measuring range Relative pressure [bar]	Connection	Order no.	Price
Output function 1 x NO/NC programmable + 1 x 4...20 mA output				
	0...16	M8 connector	PQC810	$225.90
	-1...10	M8 connector	PQC812	$225.90
	-1...1	M8 connector	PQC816	$225.90
	-1...0	M8 connector	PQC819	$225.90
Output function 2 x NO/NC programmable				
	0...16	M8 connector	PQS810	$217.30
	-1...10	M8 connector	PQS812	$217.30
	-1...1	M8 connector	PQS816	$217.30
	-1...0	M8 connector	PQS819	$217.30

Absolute pressure sensors

PT SERIES

Pressure transmitters type PT
For absolute pressure measurement.
Transmitters with fixed measuring range.
Stainless steel measuring cell without any seal.

Type	Measuring range Relative pressure [bar]	$P_{overload}$ max. [bar] static	Order no.	Price
Absolute pressure transmitter, G1/4 Connection , Output function 4...20 mA				
	0...1	2	PT0507	$293.50
	0...1.6	3.2	PT0517	$285.10

Level sensors and mounting accessories

Selection Guide

Scan to learn more

	Contents	Sensor type	Max measuring range	Analogue output	Switching output	Approvals	Pages
Point Level Detection	**Impedance spectroscopy in contact with the medium** Alternative to the turning fork, suppresses deposits and foam	LMT, LMC	_	-	√	EHEDG, 3A, FDA, EC1935, WHG, ATEX, DNV/GL, FCM	101
	Capacitive in contact with the medium For overflow prevention and leakage monitoring	LI	_	-	√	WHG	102
	Capacitive without contact For the detection through non-metallic tank walls	KG KI KQ	25	√	√		59 59 105
conttnuous level measurement	**Capacitive in contact with the medium** For applications on hydraulic and coolant tanks	LK LT	73	√	√	WHG	- 104
	Contactless radar For non-contact level measurement in tanks up to 10m	LW	1000	√	√	EHEDG, 3A, FDA, EC1935, USP VI	107
	Guided wave radar in contact with the medium For industrial and hygienic applications	LR	200	√	√	EHEDG, 3A, FDA, EC1935, WHG	106
	Hydrostatic in contact with the medium For industrial and hygienic applications on tanks and in free-flowing waterways	PG, PI, PA PS, PN, PE, PM	-	√	√	EHEDG, 3A, FDA, EC1935, ATEX, DNV/GL, FCM	99 95 101 108 98 98 96
	Ultrasonic without contact For long distances and difficult surfaces	UGT, UIT	800	√	√		109
	Photoelectric without contact For long distances, angle-independent measurement with focused light spot	O1D	980	√	√		108
	Photoelectric 3D For bulk materials and for completeness monitoring	O3D	800	√	√		78
	Calibration						

* German factory calibration must be ordered separately when placing a level sensor PO
This service will result in 4 - 6 weeks delivery delay
For local calibration by a certified laboratory, we can provide partner information on request

ifm e shop registration

Level sensors type LMT & LMC

LMT HYGIENIC POINT LEVEL SENSORS

LMT level sensors

Flexible mounting.

Shock & vibration resistant in a robust stainless steel housing.

Hygienic approvals EHEDG, 3A, FDA.

Versions available as overflow prevention to WHG.*

Complementary switching outputs.

Process connection	Installation length [mm]	Medium temp [°C]	Order no.	Price
M12 connection · output function 2 x NO/NC complimentary (water based media)				
G 1/2	11	-40...100	**LMT100**	**$450.20**
G 1/2	38	-20...100	**LMT102**	**$507.60**
G 1/2	153	-20...100	**LMT104**	**$589.60**
G 1/2	253	-20...100	**LMT105**	**$600.50**
M12 connection · output function 2 x NO/NC complimentary (viscous media and powders)				
G 1/2	11	-40...100	**LMT110**	**$450.20**
G 1/2	11	-40...100	**LMT121**	**$483.10**

Accessories

Type	Description	Order no.	Price
	Screw-in adapter, G 1/2 female – G 3/4 male	**E43302**	**$83.30**
	Screw-in adapter, G 1/2 female – G 1 male	**E43303**	**$150.80**
	Screw-in adapter, G 1/2 female – 3/4 NPT	**E43313**	**$93.80**
	Aseptoflex Vario adapter Clamp 1-1.5" O-ring EPDM*	**E33401**	**$111.20**
	Aseptoflex Vario adapter Clamp 2" O-ring EPDM*	**E33402**	**$111.20**
	Welding adapter for process sensors G1/2-welding spherical	**E30055**	**$83.10**

LMC INDUSTRIAL POINT LEVEL SENSOR

LMC level sensors

Flexible mounting.

Shock & vibration resistant in a robust stainless steel housing.

Versions available as overflow prevention to WHG.*

Complementary switching outputs.

Process connection	Installation length [mm]	Medium temp [°C]	Order no.	Price
Applications: water, hydrous media M12 connector · output function NO/NC complementary				
G 1/2	12	-25...100	**LMC100**	**$343.60**
G 1/2	21	-25...100	**LMC400**	**$343.60**
1/2 NPT	34	-25...100	**LMC500**	**$343.60**
Applications: oils, oil-based media M12 connector · output function NO/NC complementary				
G 1/2	12	-25...100	**LMC110**	**$343.60**
1/2 NPT	34	-25...100	**LMC510**	**$343.60**

Accessories

Type	Description	Order no.	Price
	Welding adapter, G 1/2, Ø 26.4 mm	**E43375**	**$28.60**
	Flat seal, 26.5 x 21.3 x 1.5 mm	**E43376**	**$9.50**
	Adapter, process connection G 1A	**E43383**	**$114.90**

Installation example LMC400: Rear installation of the LMC400 sensor in the pipe permits variable installation depths.

Maintenance-free capacitive level measurement

CAPACITIVE LEVEL SENSORS

- **Optimised for use in hydraulic oils and coolants**
- **No maintenance necessary, free from mechanical parts**
- **Easy adjustment and setting of the output function via inductive teach button**
- **2 configurable switching outputs defined by media or temperature**
- **Adjustment to different media (e.g. water/oil)**

Type	Probe length (mm)	Medium	Output	Order no.	Price
Hydraulic level probe for oil or water, -25...85°C					
	132	Oil	2 DO	LI5131	$305.80
	273	Oil	2 DO	LI5132	$323.00
	481	Oil	2 DO	LI5133	$340.00
	737	Oil	2 DO	LI5134	$357.20
	132	Water	2 DO	LI2131	$405.80
	273	Water	2 DO	LI2132	$421.10
	481	Water	2 DO	LI2133	$435.90

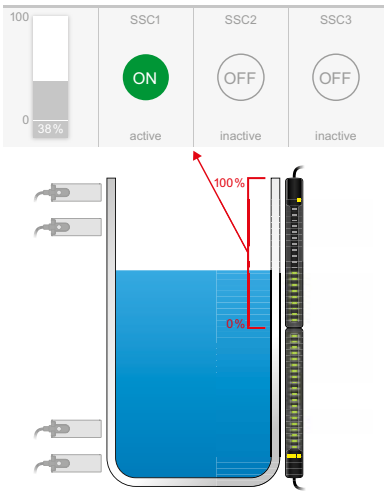
Type	Probe length (mm)	Temperature [°C]	Output	Order no.	Price
Combined level and temperature hydraulic level probe					
	472 mm	0...70 (90 for 1 hr)	1xDO, 1x4-20	LT3023	$1,045.70
	262 mm	0...70 (90 for 1 hr)	4 x DO	LT8022	$997.50
	472 mm	0...70 (90 for 1 hr)	4 x DO	LT8023	$1,053.30
	728 mm	0...70 (90 for 1 hr)	4 x DO	LT8024	$1,109.20

Accessories

Type	Description	Order no.	Price
Mounting accessories			
	Mounting clamp for level sensors Ø 16 mm	E43000	$10.30
	Mounting clamp for level sensors Ø 16 mm	E43016	$36.80
Mounting adapters			
	Mounting adapter, G 3/4, stainless steel	E43003	$91.90
	Installation adapter for level sensors, D16, stainless steel	E43004	$100.10
	Flange plate for level sensors, 65-80 mm, anodised aluminium	E43006	$82.40

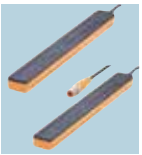
Maintenance-free capacitive level measurement

CAPACITIVE LEVEL SENSORS



- Continuous level monitoring from outside the process
- No stress caused by the medium thanks to non-contact detection
- Three point level positions in one sensor
- Deposits can be detected and signalled to improve quality of the process
- Several KQ10 units can be linked via IO-Link

KQ10 FOR CONTINUOUS LEVEL MONITORING - 3 PROGRAMMABLE SET POINTS

Type	Power Supply	Ambient temp	Protection rating	Connection	Order no.	Price
Capacitive point level via continuous level monitoring - PNP/NPN						
	18-30 vDC	-20...80°	IP67	2m cable, 5-pole	KQ1000	$552.80
	18-30 vDC	-20...80°	IP67	0.1m cable, M12 connector, 5-pole	KQ1001	$552.80

Accessories

Type	Description	Order no.	Price
	Mounting adapter for flat surfaces	E12675	$52.10
	Mounting adapter for pipes	E12676	$49.10
	Surface mount tape for KQ10	E12677	$99.00
	PA cable tie, 760mm long (5 piece pack)	E10880	$13.30
	2m, Black, PUR jumper, 5-pole	EVC058	$69.50
	5m, Black, PUR jumper, 5-pole	EVC059	$80.50

TYPE KQ POINT LEVEL SENSORS

Capacitive sensors in small plastic rectangular housing. Easy installation with mounting adapters and fixing straps.

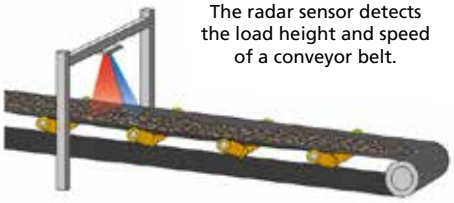
Design	Output stage	Sensing range [mm]	Housing material	Connection	Order no.	Price
PerfomanceLine · M12 connector ·3 wires, IO-Link Com 2						
48 x 20 x 14	PNP	12 nf	PBT	cable 2 m	KQ6002	$193.40
48 x 20 x 7	PNP	12 nf	PBT	cable 2 m	KQ5100	$113.40
Connection cable with M12 connector · 3-wire						
48 x 20 x 14	PNP	12 nf	PBT	M12	KQ6005	$219.00

Radar distance sensor

RADAR SENSOR FOR HARSH ENVIRONMENTAL AND WEATHER CONDITIONS

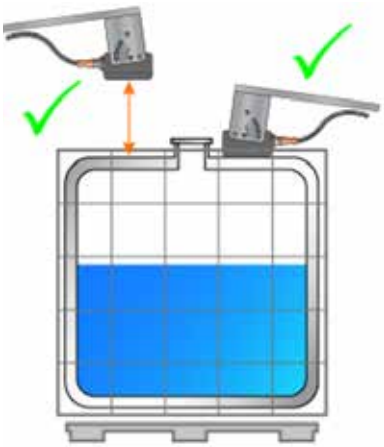
Scan to learn more

- **Long ranges and a wide temperature range**
- **Reliable measurements even in precipitation, fog, dust and dirt**
- **Simultaneous detection of distance and speed**
- **Adaptable to specific applications thanks to various operating modes**
- **Intuitive set-up and visualisation of the measured data using the ifm Vision Assistant software**



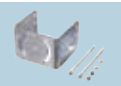
The radar sensor detects the load height and speed of a conveyor belt.

Type	Aperture angle horizontal x vertical [°]	Frequency [GHz]	Outputs (2x configurable)	Order no	Price
Distance sensor	40 x 30	60...64	IO-Link, binary, 4...20 mA, 0...10 V	**R1D100**	**$1,484.70**
Distance sensor	40 x 20	77...81	IO-Link, binary, 4...20 mA, 0...10 V	**R1D200**	**$1,484.70**
Distance sensor, wide adjustable angle	140 x 50	60…64	IO-Link, binary, 4…20 mA, 0…10 V	**R2D100**	**$1,829.00**
Area sensor, wide angle	140 x 50	60…64	IO-Link, binary	**R2D110**	**$1,829.00**
Distance sensor, wide adjustable angle	140 x 30	77…81	IO-Link, binary, 4…20 mA, 0…10 V	**R2D200**	**$1,829.00**
Area sensor, wide angle	140 x 30	77…81	IO-Link, binary	**R2D210**	**$1,829.00**



IBC level control, radars can read through plastic

Accessories

	Description	Order no.	Price
	Mounting bracket for radar sensors	**E23009**	**$88.20**
	Mounting bracket for radar sensors	**E23010**	**$83.90**
	Mounting bracket for radar sensors	**E23011**	**$68.90**
	Radar corner reflector	**E23013**	**$159.20**

Radar common applications

RADAR SENSOR FOR HARSH ENVIRONMENTAL AND WEATHER CONDITIONS

Presence and distance control

- Detection of vehicles in car wash stations
- Level detection of stockpiles, bulk material and fluids
- Detection of distances and heights

Door, barrier and gate automation

- Automation of industrial doors, barriers, toll gates
- Detection of vehicles on loading docks
- Cross traffic suppression

Collision avoidance and obstacle detection

- Area monitoring / blind spot detection on off-road vehicles, industrial trucks and municipal vehicles, lifting platforms, etc.
- Stand-alone or in combination with other sensors

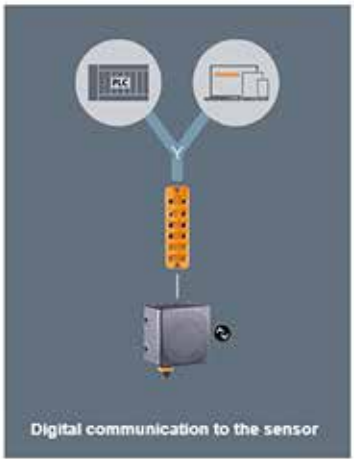
What is possible to detect

Radar Distance Sensors	
	Non contact load height, and simultaneous belt speed detection
	Position detection of vehicles in water spray or rain
	Level detection of liquid and solid media, even through plastic
	Automation of gates and barriers, with cross traffic masking
Radar Range Sensors	
	Obstacle detection and collision warning in areas with poor visibility
	Distance and height monitoring, even in dusty environments
	Precise detection of distance between a vehicle and obstacles

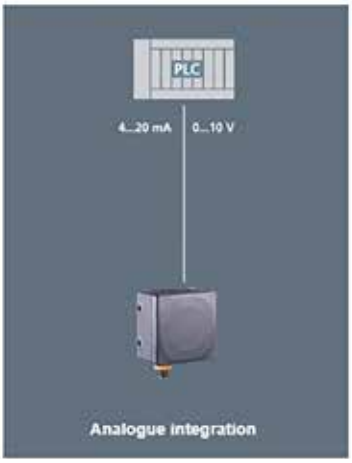
RADAR SENSOR MEASURES DISTANCE, POSITION AND SPEED, EVEN IN POOR VISIBILITY

IP69K

IO-Link



Digital communication to the sensor



Analogue integration

Digital communication to the sensor

Radar sensor

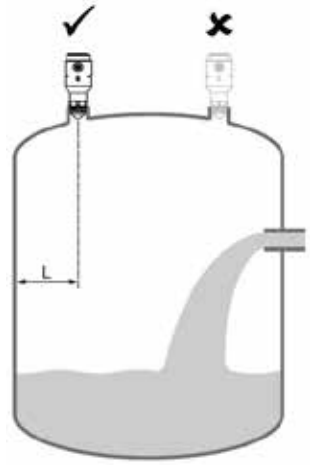
DESIGNED FOR F&B, WATER TREATMENT APPLICATIONS`

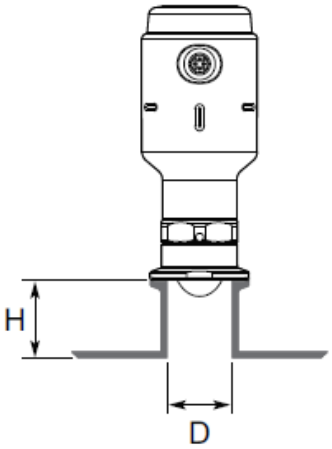
- **80 GHz frequency, continuous level monitoring**
- **0 - 10m range, high accuracy (+/-2mm FS)**
- **Resolution 1mm**
- **Polished SS316L housing, sealed to IP69K**
- **Designed for CIP/SIP applications**

Type	Measuring Range [m]	Outputs	Medium Temperature [°C]	IP Rating	Order no.	Price
Hygienic design to IP69k protection, use in enclosed tanks						
	10m (15m possible)	IO-Link 4…20 mA Binary switch	-40°C...150°C	IP69k	**LW2720**	**$3,117.80**
Designed to IP69k protection (follow installations guidelines)						
	10m (15m possible)	IO-Link 4…20 mA Binary switch	-40°C...150°C	IP69k	**LW2120**	**$2,739.10**

Accessories

Description	Order no.	Price
Hygienic weld socket Ø50 mm – G 1 Aseptoflex Vario, with leakage port	**E30130**	**$122.40**
Tri-clamp DN25...DN40 (1...1.5") – G 1 Aseptoflex Vario, with leakage port	**E33208**	**$128.70**
Tri-clamp DN50 (2") – G 1 Aseptoflex Vario, with leakage port	**E33209**	**$147.80**





Installation guidelines

Recommended ½ of the tank radius
Minimum distance to Tank Wall, L= 200 mm.

Nozzle Diameter (D)	Maximum nozzle height (H)
40 mm	150 mm
50 mm	200 mm
80 mm	300 mm
100 mm	400 mm
150 mm	600 mm

Level sensors type LR

CONTINUOUS MEASUREMENT LEVEL SENSORS

Type LR level sensors

Display and handling on the unit or via IO-Link.

As an option with analogue output or up to four switching outputs.

Process connection	Outputs	Display	IP Rating	Order no.	Price
M12 connector · I/O Link Programmable					
G 3/4	2 Sw points	4 Digit LED	IP67	**LR7000**	**$788.60**
G 3/4	2 Sw points	-	IP69k	**LR7020**	**$672.00**
G 3/4	4 Sw points	4 Digit LED	IP67	**LR8000**	**$914.90**
G 3/4	4 Sw points	-	IP69k	**LR8020**	**$770.10**
G 3/4	1 Sw, 1 analogue	4 Digit LED	IP67	**LR3000**	**$933.60**
G 3/4	1 Sw, 1 analogue	-	IP69k	**LR3020**	**$788.80**
M12 connector · I/O Link Programmable, SS316L					
G 3/4	1 Sw, 1 analogue	-	IP69k	**LR9020**	**$834.70**
G 3/4	1 Sw, 1 analogue	4 Digit LED	IP69k	**LR2050**	**$1,233.40**
M12 connector · I/O Link Programmable, IP69K, SS316L ,G1 Aseptoflex vario					
G 3/4	1 Sw & 1 analogue, or 2 Sw	4 Digit LED	IP69k	**LR2750**	**$1,822.30**

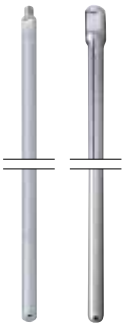
LR type level transmitter

For industrial applications.

Analogue output scalable 4...20 mA / 0...10 V.

Protection rating IP 69K.

Easily adjustable via IO-Link.



Accessories

Standard Sensor. Probes	Order no.	Price
Industrial LR level sensor probes		
240 mm	**E43203**	**$37.40**
450 mm	**E43204**	**$52.70**
700 mm	**E43205**	**$69.70**
1,000 mm	**E43207**	**$98.80**
1,200 mm	**E43208**	**$117.70**
1,400 mm	**E43209**	**$139.40**
1,600 mm	**E43210**	**$158.60**

Hygienic Sensor. Probes	Order no.	Price
Hygienic LR2750 level sensor probes		
150 mm	**E43345**	**$122.60**
300 mm	**E43346**	**$147.60**
500 mm	**E43340**	**$182.30**
700 mm	**E43347**	**$212.40**
1,000 mm	**E43341**	**$248.10**
1,500 mm	**E43348**	**$281.70**
–	**–**	**–**
2,000 mm	**E43342**	**$331.20**

Coaxial pipes for LR level sensors with G 3/4 male, industrial applications.
Material stainless steel (1.4301 / 304)

Coaxial Tubes

Industrial LR level sensor probes		
240 mm	**E43211**	**$139.40**
450 mm	**E43212**	**$158.20**
700 mm	**E43213**	**$179.20**
1,000 mm	**E43214**	**$206.80**

Hygienic LR2750 level sensor probes		
1,200 mm	**E43334**	**$244.00**
1,400 mm	**E43216**	**$289.20**
1,600 mm	**E43217**	**$330.90**

Note: Ensure the probe you select is compatiable with the amplifier!

***Note: for use with Hygienic probes**

Description	Order no.	Price
Flange plate, LR 65-80, stainless steel 303	**E43202**	**$84.80**
G 3/4" Welding adaptors, ø50mm	**E30009**	**$83.10**
Sealing plug (FDA G1)	**E30128**	**$105.60**
Aseptoflex Vario adapter Clamp 1-1.5" O-ring EPDM*	**E33201**	**$119.40**
Aseptoflex Vario adapter Clamp 2" O-ring EPDM*	**E33202**	**$139.60**

Submersible pressure transmitters type PS

PS SENSORS

Measuring range [bar]	Output	Cable [m]	Order no.	Price
For high resistance to media, CE approval				
0...0.25	4...20 mA	FEP, 5 m	PS4208	$1,420.40
0...0.25	4...20 mA	FEP, 10 m	PS4408	$1,515.50
0...0.25	4...20 mA	PUR, 5 m	PS3208	$1,010.70
0...0.6	4...20 mA	PUR, 10 m	PS3407	$1,112.90
0...0.6	4...20 mA	PUR, 15 m	PS3427	$1,147.50
0...0.6	4...20 mA	FEP, 10 m	PS4407	$1,515.50
0...0.6	4...20 mA	FEP, 20 m	PS4506	$1,706.30
0...0.6	4...20 mA	PUR, 30 m	PS3607	$1,226.10
0...1	4...20 mA	PUR, 15 m	PS3417	$1,147.50
0...1	4...20 mA	FEP, 15 m	PS4417	$1,610.80
0...1	4...20 mA	FEP, 30 m	PS4607	$1,896.70
For hazardous areas, CE, Ex, GL approvals				
0...1	4...20 mA	FEP, 15 m	PS317A	$2,096.40

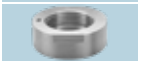
Accessories

	Description	Order No.	Price
	Cable clamp fastener	E30399	$55.70
	Filter element for submersible pressure transmitters	E30400	$15.10
	Splitter box	E30401	$204.80
	Additional weight for submersible pressure transmitters	E30402	$125.20

LASER DISTANCE SENSORS - FOR OPAQUE LIQUIDS (NOT TRANSPARENT)

Range [mm]	Laser class	Outputs	Order no.	Price
Distance detection				
200...10,000	2	PNP + 4...20 mA	O1D100	$817.90
200...10,000	2	DC 1 x PNP	O1D101	$817.90
200...10,000	2	PNP + 4...20 mA	O1D105	$817.90
300...6,000	1	PNP + 4...20 mA	O1D155	$817.90
200...10,000	2	PNP + 4...20 mA, IO-Link prog	O1D120	$817.90
Level detection				
200...10,000	2	PNP + 4...20 mA	O1D300	$826.00

Accessories

	Description	Order No.	Price
	O1D Alignment + Mounting adapter SS316L ø12mm	E2D101	$62.60
	O1D Hygienic Mounting adapter SS316L/G1	E21224	$334.80
	O1D Hygienic Tri-Clamp adapter, SS316L, clamp 1-1.5“	E33601	$141.20
	O1D Protective window: PMMA transparent	E21133	$65.80
	O1D Hygienic Weld adapter, SS316L, G1 ø50mm	E30013	$88.90

Ultra-sonic sensors

RANGES VARY FROM 40mm...8m

Design	Range [mm]	Output	Setting	Order no.	Price
Diffuse sensor · 3-wire DC, 4-pole					
M18 x 60mm	300	4...20 mA	Wire	UGT501	$462.60
M18 x 60mm	300	PNP	IO-Link	UGT524	$421.10
M18 x 60mm	1,200	4...20 mA	Wire	UGT507	$462.60
M18 x 60mm	1,200	PNP, prog	IO-Link	UGT526	$421.10
Diffuse sensor · 4-wire DC, 4-pole					
M18 Cube	300	PNP + 4…20 mA	Button	UGT580	$462.60
M18 Cube	300	PNP	Button / IO-Link	UGT592	$466.90
M18 Cube	1,200	PNP + 4…20 mA	Button	UGT584	$462.60
M18 Cube	1,200	NPN + 4…20 mA	Button	UGT590	$462.60
M18 Cube	1,200	PNP, prog	Button / IO-Link	UGT594	$466.90
Diffuse sensor · 4-wire DC, 4-pole, IO-Link, PBT plastic					
M18 x 98mm	150...1,600	2 x PNP, NO/NC Prog	Button, IO-Link	UGT203	$505.70
M18 x 98mm	150...1,600	PNP + 4…20 mA	Button, IO-Link	UGT204	$505.70
M18 x 98mm	150...1,600	PNP + 0…10 V	Button, IO-Link	UGT205	$505.70
Diffuse sensor · 4-wire DC, 4-pole					
M18 x 98mm	2,200	2 x PNP	Button, IO-Link	UGT512	$563.30
M18 x 98mm	2,200	PNP + 4…20 mA	Button, IO-Link	UGT513	$563.30
M18 x 98mm	2,200	PNP + 0…10 V	Button, IO-Link	UGT514	$563.30
M18 x 98mm	2,200	NPN + 4…20 mA	Button	UGT519	$557.90
Diffuse sensor · 4-wire DC, 4-pole					
M30 X 1.5	3,500	2 x PNP	Button, IO-Link	UIT500	$740.20
M30 X 1.5	3,500	PNP + 4…20 mA	Button, IO-Link	UIT501	$820.70
M30 X 1.5	6,000	PNP + 4…20 mA	Button, IO-Link	UIT504	$955.60
M30 X 1.5	8,000	PNP + 4…20 mA	Button, IO-Link	UIT507	$1,117.00
Diffuse sensor · 4-wire DC, 4-pole - stainless steel, IP69K					
M30 X 1.5	2,500	2 x PNP	IO-Link	UIT300	$1,063.00
M30 X 1.5	2,500	PNP + 4…20 mA	IO-Link	UIT301	$1,111.80

Ultrasonic level application tips:

While an attractive option price wise for level control, we recommend you avoid:

- **Open air settings** - where wind can attenuate sound waves
- **Avoid fumes/steam** - ultrasonics are designed to be used in clean air
- **Avoid Fast fill / discharge applications** - ultrasonics respond relatively slowly

Accessories

Type	Description	Order no.	Price
	Mounting set, Ø 18.5 mm clamp mounting, high-grade stainless steel (M10 cap screw)	E20870	$40.70
	Mounting set, Ø 30.2 mm clamp mounting, high-grade stainless steel	E20874	$40.70
	Mounting rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	E20938	$15.70
	Angle bracket for type M30, stainless steel	E10737	$9.30
	Sound tube, M18, POM	E23000	$61.10
	Sound tube, M30, POM	E23007	$67.80
	Sound deflection angle for sensors with a range of ≤ 1,2 m, stainless steel	E23001	$54.40
	Sound deflection angle for sensors with a range of ≤ 2,2 m, stainless steel	E23002	$60.50

Flow sensors and mounting accessories

Selection Guide

Scan to learn more

	Contents	Sensor type	Max measuring range	Medium temperature [°C]	Max. pressure rating	Approvals	Pages
Absolute measurement	Industrial magnetic-inductive	SM Automation	0,005...900 l/min	-10...70	16 bar	• EC1935/2004, KTW, ACS	113
	Hygienic Magnetic-inductive	SMF Hygienic	5...5,000 l/min	-20...150	25 bar	• FDA, 3A	114
	Ultrasonic	SU	1...1000 l/min	-20...100	100 bar	• Reg31, ACS, KTW	116
	Vortex	SV display SV (no display)	1...100 l/min 0,5...150 l/min	-10...90 -40...100	12 bar 12 bar	• WHG	116
	Mechatronic	SB (water) SBT SBU SBZ SB (oil)	0,2...200 l/min 0,3...200 l/min 0,3...75 l/min 1...50 l/min 0,03...200 l/min	-10...100 10...180 0...60 -10...100	80 bar 30 bar 200 bar		117 - - - -
	Thermal flow sensor (for liquid or gas applications)	SD SDG	0,05...700 m3/h 8...17480 m3/h	-10...60 -10...60	16 16	• EHEDG, 3A, FDA, EC1935, USP VI	117 -
Relative measurement	Thermal flow sensors (for liquid or gas applications)	SI SR/SN/SF SA	3...100 cm/s 3...100 cm/s 3...300 m/s	-25...80 -25...120 -20...100	300 300 100	• EHEDG, FDA, FCM, 3-A, EC1935/2004, ACS, DNV-GL,KTW, ATEX II 3G, ATEX II 3D • Reg31, ATEX II (1G, 2G) • FDA, Reg31, KTW, ACS, FCM, DNV-GL, EC1935/2004	118 - 119
	Thermal airflow monitors (for gas applications)	SL	100...3000 cm/s	-10...50	1		120
	Accessories			√	√		
	Calibration *			√	√		

* German factory calibration must be ordered separately when placing a flow sensor PO This service will result in 4 - 6 weeks delivery delay
For local calibration by a certified laboratory, we can provide partner information on request

ifm shop registration

Industrial Flow sensors

INDUSTRIAL FLOW SENSORS TYPE SM

Scan to learn more

- For water based conductive media >20 µS/cm / viscosity: < 70 mm²/s (40 °C)
- IO-Link communication for fast setup and maximum data feedback
- SS316L stainless steel body
- IP 67 water tight protection rating

Measuring range Flow [l/min]	Process Connection	Medium Temperature [C]	Order no.	Price
M12 connector · 24 vDC · outputs 2 x switch/analogue (4/20 mA) · EPDM seals				
0.005...3	G1/4	-20...90	**SM4120**	**$1,376.50**
0.1...35	G1/2	-20...90	**SM6120**	**$1,292.10**
0.1...75	G3/4	-20...90	**SM7120**	**$1,488.80**
0.2...150	G1	-20...90	**SM8120**	**$1,719.00**
5...300	G2	-10...90	**SM9100**	**$1,890.30**
5...600	G2	-10...90	**SM2100**	**$2,164.40**
5...900	G2	-10...90	**SM2130**	**$2,236.10**

INDUSTRIAL SM ACCESSORIES (PAGE 108)

Process adapters for type SM

Process connection	Device connection	Material	Order no.	For sensor type	Price
R 1/2	G 1/2	316L-SS	**E40199**	SM6xxx	**$132.50**
G 1/2	G 1/2	316L-SS	**E40213**	SM6xxx	**$152.80**
G 3/4	G 1/2	316L-SS	**E40189**	SM6xxx	**$113.80**
R 1/2	G 3/4	316L-SS	**E40178**	SM7xxx	**$131.00**
G 1/2	G 3/4	316L-SS	**E40214**	SM7xxx	**$155.10**
G 3/4	G 3/4	316L-SS	**E40216**	SM7xxx	**$158.40**
R 1/2	G 1	316L-SS	**E40179**	SM8xxx	**$132.50**
G 3/4	G 1	316L-SS	**E40215**	SM8xxx	**$137.50**
G 1	G 1	316L-SS	**E40217**	SM8xxx	**$168.90**
1,5" Victaulic	G 2	316L-SS	**E40227**	SM9xxx, SM2xxx	**$501.10**
R 2	G 2	316L-SS	**E40231**	SM9xxx, SM2xxx	**$500.10**
G 1 1/2	G 2	316L-SS	**E40230**	SM9xxx, SM2xxx	**$439.40**
Flange DN50	G 2	316L-SS	**E40240**	SM9xxx, SM2xxx	**$481.60**

Grounding clamp for type SM

Description	Material	Order no.	For sensor type	Price
SM Grounding clamp	316L-SS	**E40234**	SMxxxx	**$20.90**

Hygienic Flow sensors type SMF

HYGIENIC FLOW SENSORS TYPE SMF

Scan to learn more

BODY									
Nominal diameter	Measuring range Flow [l/min]	Standard SI + EU units Display	Price	Alternative Standard + imperial units	Price	Alternative Standard SI units NO display	Price	Weight	Packaging LxWxH [mm]
DN15	-	-	Q4 2025	-	Q4 2025	-	Q4 2025	-	-
DN25	-	-	Q4 2025	-	Q4 2025	-	Q4 2025	-	-
DN40	5...750	SMF320	$4,836.60	SMF321	$4,836.60	SMF350	$4,513.00	4,6kg	312x199x197
DN50	10...1,200	SMF420	$4,990.90	SMF421	$4,990.90	SMF450	$4,668.10	6,1 kg	312x199x197
DN65	20...2,000	SMF520	$5,347.90	SMF521	$5,347.90	SMF550	$5,025.10	7 kg	365x199x254
DN80	30...3,000	SMF620	$5,680.80	SMF621	$5,680.80	SMF650	$5,358.00	7,9 kg	365x199x254
DN100	50...5,000	SMF720	$6,492.00	SMF721	$6,492.00	SMF750	$6,169.20	9,9kg	365x199x254
DN125	-	-	Q2 2025	-	Q2 2025	-	Q2 2025	-	-
DN150	-	-	Q2 2025	-	Q2 2025	-	Q2 2025	-	-

NOTE: RJT, BSM adaptors available on request.

Build the right solution for you now

We provide you with our innovative Solution Builder so that you can benefit quickly and easily from the precision of our flow sensors for the food industry. Define your requirements - and we will put together your product solution. Sounds good? Then why not give it a try right away?

SMF SEALS

Sealing						
Nominal diameter	EPDM	Price	FKM	Price	VQM (silicone)	Price
DN15	-	Q4 2025	-	Q4 2025	-	Q4 2025
DN25	-	Q4 2025	-	Q4 2025	-	Q4 2025
DN40	E40562	$133.40	E40542	$133.40	E40572	$133.40
DN50	E40563	$144.80	E40543	$144.80	E40573	$144.80
DN65	E40564	$158.40	E40544	$158.40	E40574	$158.40
DN80	E40565	$164.60	E40545	$164.60	E40575	$164.60
DN100	E40566	$195.60	E40546	$195.60	E40576	$195.60
DN125	-	Q2 2025	-	Q2 2025	-	Q2 2025
DN150	-	Q2 2025	-	Q2 2025	-	Q2 2025

ifm eshop registration

Hygienic Flow sensors type SMF

SMF PROCESS CONNECTIONS

- Robust magnetic-inductive flow meter designed for F&B applications
- IO-Link communication for fast setup and maximum data feedback
- Reduces the need for measuring points by providing flow rate, total volume, temperature and conductivity
- IP69K water tight protection rating

Process Connection										
Nominal diameter	CLAMP ISO 2852	Price	CLAMP DIN 32676 (series A)	Price	Weld-in flange (EN10357 series A)	Price	Milk pipe fitting DIN11851	Price	SMS Thread Connection	Price
DN15	-	Q4 2025	-	Q4 2025	-	Q4 2025	-	Q4 2025	-	Q4 2025
DN25	-	Q4 2025	-	Q4 2025	-	Q4 2025	-	Q4 2025	-	Q4 2025
DN40	E40482	$556.00	E40492	$556.00	E40472	$381.30	E40502	$550.00	E40512	$631.60
DN50	E40483	$593.70	E40493	$593.70	E40473	$410.10	E40503	$581.40	E40513	$670.50
DN65	E40484	$650.10	E40494	$650.10	E40474	$426.30	E40504	$655.00	E40514	$763.90
DN80	E40485	$713.10	E40495	$713.10	E40475	$477.50	E40505	$752.70	E40515	$895.60
DN100	E40486	$828.20	E40496	$828.20	E40476	$635.90	E40506	$1,581.80	E40516	$1,626.80
DN125	-	Q2 2025	-	Q2 2025	-	Q2 2025	-	Q2 2025	-	Q2 2025
DN150	-	Q2 2025	-	Q2 2025	-	Q2 2025	-	Q2 2025	-	Q2 2025

Process Connection								
Nominal diameter	DIN 11864-2 hygienic flange	Price	CLAMP DIN 32676 (series C)	Price	Weld-in flange (EN10357 series C)	Price	Weld-in flange (EN10357 series D)	
DN15	-	Q4 2025	-	Q4 2025	-	Q4 2025	-	Q4 2025
DN25	-	Q4 2025	-	Q4 2025	-	Q4 2025	-	Q4 2025
DN40	E40522	$1,285.90	E40612	$556.00	E40622	$381.30	E40632	$381.30
DN50	E40523	$1,418.90	E40613	$593.70	E40623	$410.10	E40633	$410.10
DN65	E40524	$1,507.80	E40614	$650.10	E40624	$426.30	-	-
DN80	E40525	$1,903.90	E40615	$713.10	E40625	$477.50	-	-
DN100	E40526	$1,993.60	E40616	$828.20	E40626	$635.90	E40636	$635.90
DN125	-	Q2 2025	-	Q2 2025	-	Q2 2025	-	Q2 2025
DN150	-	Q2 2025	-	Q2 2025	-	Q2 2025	-	Q2 2025

Flow sensors type SV & SU

ULTRASONIC FLOW METER - IDEAL FOR NON CONDUCTIVE LIQUIDS

Measuring range [l/min]	Medium temperature [°C]	Process connection	Order no	Price
IO-Link, Output function 2 x ⎍ / ⎍ or analogue (4...20 mA / 0...10 V)· DC PNP/NPN				
0.5...65	-20...100	G 1/2 (DN15)	SU6020	$1,042.70
0.5...75	-20...100	G 3/4 (DN20)	SU7020	$1,098.90
1...275	-20...100	G 1 1/4 (DN32)	SU9020	$1,211.20
1...240	-20...100	G 1 (DN25)	SU8020	$1,155.00
5...1,000	-20...100	G 2 (DN50)	SU2020	$1,379.70
IO-Link, Output function 2 x ⎍ / ⎍ or analogue (4...20 mA / 0...10 V)· DC PNP/NPN				
1...240 L/min	-20...100	Hygienic 1" Tri-Clamp	SUH200	$1,613.20
5...1,000 L/min	-20...100	Hygienic 2" Tri-Clamp	SUH400	$1,846.70

ULTRASONIC FLOW METER - IDEAL FOR NON CONDUCTIVE LIQUIDS - OIL, DIESEL, GLYCOL SOLUTIONS

Measuring range flow [l/min]	Pulse value	Process connection	Order no.	Price
Output function 2 x ⎍ / ⎍ or analogue (4...20 mA / 0...10 V)· DC PNP/NPN				
0...50	0.1 l...1,000,000 m³	G 3/4	SU7000	$1,920.40
0...100	0.1 l...1,000,000 m³	G 1	SU8000	$1,999.20
0...200	0.1 l...100,000 m³	G 1 1/4	SU9000	$2,829.10

SU ACCESSORIES

Process adapters for type SU

Process connection	Device connection	Material	Order no.	For sensor type	Price
1/2" NPT	G 3/4	SS316L	E40191	SU7xxx	$131.00
G 1/2	G 3/4	SS316L	E40214	SU7xxx	$155.10
G 3/4	G 3/4	SS316L	E40216	SU7xxx	$158.40
R 1/2	G 1	SS316L	E40179	SU8xxx	$132.50
R 3/4	G 1	SS316L	E40180	SU8xxx	$150.20
1/2" NPT	G 1	SS316L	E40192	SU8xxx	$132.50
3/4 NPT	G 1	SS316L	E40193	SU8xxx	$150.20
G 3/4	G 1	SS316L	E40215	SU8xxx	$137.50
G 1	G 1	SS316L	E40217	SU8xxx	$168.90

VORTEX WATER FLOW METER - LOW COST!

Flow meters type SV

Electronically rotatable multi- colour display.

Pressure-resistant up to 12 bar.

Medium temperature -10...90 °C.

Rotatable process connection.

Measuring range [l/min]	Medium temperature [°C]	Nominal diameter [Ø]	Process connection	Order no.	Price
M12 connector · electrical design DC, 2 x IO-Link Programmable					
1.0...20	-10...90	DN8	G 1/2	SV4200	$789.50
2.0...40	-10...90	DN10	G 1/2	SV5200	$806.50
5.0...100	-10...90	DN20	G 3/4	SV7200	$856.80
M12 connector · electrical design DC 2 x analogue 4...20 mA					
1.0...20	-10...90	DN8	G 1/2	SV4204	$784.30
2.0...40	-10...90	DN10	G 1/2	SV5204	$812.30
5.0...100	-10...90	DN20	G 3/4	SV7204	$863.10

Note: Versions with Rc process connection option are available on request.

SV ACCESSORIES

Mounting plate	Material	Order no.	For sensor type	Price
	high-grade stainless steel	E40249	SV Series[1)]	$15.70

Flow sensors type SA & SBT

CONFIGURABLE INDUSTRIAL FLOW SENSOR FOR WATER, OILS, EMULSIONS & AIR

Measuring range [l/min]	Medium temperature [°C]	Process connection	Order no	Price
Water, coolants, oil and glycol solutions IO-Link configurable, Digital outputs 2, Analogue outputs 1				
0.3...15	0...80	G 1/2	SBG232	$723.40
0.5...25	0...80	G 1/2	SBG233	$723.40
2...100	0...80	G 3/4	SBG246	$869.10
4...200	0...80	G 1 1/4	SBG257	$1,038.90
Water, glycol solutions, 4...20 mA Analogue output				
0.3...15	10...180	Rp 3/4	SBT633	$775.70
0.5...25	10...180	Rp 3/4	SBT634	$743.90
2...100	10...180	Rp 1	SBT646	$927.80
4...200	10...180	Rp 1 1/2	SBT657	$1,250.60

CONFIGURABLE INDUSTRIAL FLOW SENSOR FOR WATER, OILS, EMULSIONS & AIR

Flow sensors type SA

Sensing head rotatable by 345°.

2 switching outputs.

Easy switch-point setting via display

3-pushbutton operating concept.

Fast response time for flow and temperature measurement.

Individual serial number.

IO-Link

Type	Measuring range liquid / gaseous [cm/s]	Medium temp [°C]	Probe length [mm]	Order no.	Price
IO-Link Programmable · electrical design DC PNP/NPN, analogue 4...20 mA					
M18	4...300 / 200...10000	-20...90	45	SA5000	$780.20
Progressive ring	4...300 / 200...10000	-20...100	100	SA4100	$809.00
Progressive ring	4...300 / 200...10000	-20...100	200	SA4300	$837.20

ACCESSORIES

Process connection	Device connection	Material	Order no.	Price
Screw Fitting - for SA5xxx series flow sensors				
G 1/4	progressive ring	SS316L	E40099	$50.10
G 1/2	progressive ring	SS316L	E40096	$64.60
G 3/4	progressive ring	SS316L	E40134	$74.70
1/2 NPT	progressive ring	SS316L	E40107	$57.00
Progressive Ring Fitting - for SA41xx & SA43xx series flow sensors				
G 1/4	progressive ring	SS316L	E40259	$56.80
G 1/2	progressive ring	SS316L	E40258	$93.80
G 3/4	progressive ring	SS316L	E40260	$93.20
R 1/2	progressive ring	SS316L	E40263	$75.10

Flow sensors type SI5 & SI6

INDUSTRIAL FLOW MONITOR

Flow sensors type SI
Protection rating IP 67.
Robust housing.
Easy to set.

Operating voltage [V]	(Liquids) Largest sensitivity [cm/s]	Material	Pressure [bar]	Order no.	Price
M12 connector					
24vDC, PNP	3...100	SS316L	30	**SI5000**	**$709.00**
24vDC, NPN	3...100	SS316L	30	**SI5001**	**$726.90**
24vDC, 2xNO/NC	3...100	SS316L	300	**SI5002**	**$753.70**
24vDC, 4...20mA	3...100	SS316L	300	**SI5004**	**$705.60**
240vAC, relay	3...100	SS316L	300	**SI5006**	**$785.80**
24vDC, PNP	3...100	SS316L	300	**SI5010**	**$757.40**
24vDC, PNP	3...100	**Titanium**	100	**SI5100**	**$1,127.30**
24vDC, PNP	3...100	**Hastelloy C**	300	**SI0553**	**$1,265.00**

ACCESSORIES

Process connection	Device connection	Material	Order no.	Price
G 1/4	M18	SS316L	**E40099**	**$50.10**
G 1/2	M18	SS316L	**E40096**	**$64.60**
G 3/4	M18	SS316L	**E40134**	**$74.70**
G 1	M18	SS316L	**E40119**	**$79.20**

HYGIENIC FLOW MONITOR

Flow sensors type SI
Modular adaptation for hygienic applications.
Protection rating IP 67 and IP 69K.

Probe length [mm]	(Liquids) Largest sensitivity [cm/s]	Material	Pressure [bar]	Order no.	Price
M12 connector · G1A / Aseptoflex Vario adapter, -25...95, for SIP process: ...140° c					
20	3...100	SS316L	30	**SI6600**	**$847.30**
38	3...100	SS316L	30	**SI6700**	**$860.00**
55	3...100	SS316L	30	**SI6800**	**$872.10**

ACCESSORIES

Process connection	Device connection	Material	Order no.	Price
Clamp 1...1.5"	Aseptoflex Vario	SS316L	**E33201**	**$119.40**
Clamp 2"	Aseptoflex Vario	SS316L	**E33202**	**$139.60**

Flow sensors

CONTROL MONITOR FOR SF SERIES FLOW SENSORS

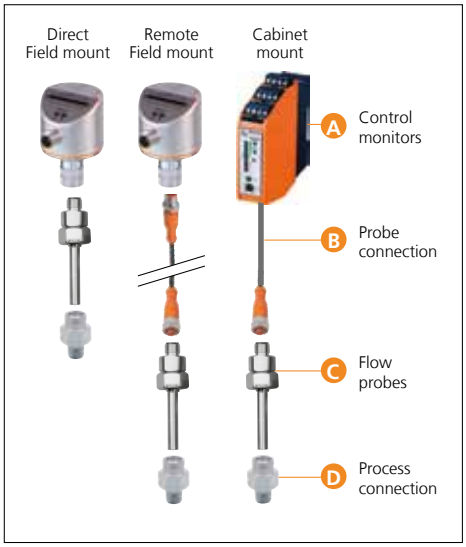
Mounting	Output	Power Supply	Order no.	Price
Remote control monitor				
DIN Rail	Relay	24 VDC	**SR0127**	**$473.80**
DIN Rail	Relay	90-240 VAC	**SN0150**	**$706.20**

Control monitor for flow sensors of the SF series

Operating voltage [V]	Material	Pressure [bar]	Order no.	Price
M12 connector · electrical design DC PNP / AC, relay				
19...36 DC	SS304S15		**SR5900**	**$556.90**
90...240 AC	SS304S15		**SR5906**	**$609.20**

Component guide

Select a control monitor depending on your application. Next, determine an electrical connection, flow probe and process connection.



Sensors for connection to control monitor

Sensor length [mm]	Setting range (liquids) [cm/s]	Material	Pressure [bar]	Order no.	Price
M12 · process connection clamp adapter · with flexible immersion depth					
44	3...300 [cm/s]	SS316L	300	**SF5200**	**$427.30**
191	3...300 [cm/s]	SS316L	30	**SF6200**	**$485.40**
M12 · process connection G 1/4 male, adapter · for aggressive media					
12	3...60 [cm/s]	ceramics*	30	**SF2405**	**$544.80**
15,5	3...60	ceramics*	30	**SF3405**	**$660.10**
44	3...300	titanium	100	**SF5700**	**$913.60**
63	3...300	titanium	100	**SF5701**	**$959.20**
93	3...300	titanium	100	**SF5702**	**$1,087.30**
143	3...300	titanium	100	**SF5703**	**$1,246.90**
243	3...300	titanium	100	**SF5704**	**$1,320.70**

EX RATED APPROVED UNITS FOR HAZARDOUS AREAS

ATEX approval	Output	Power Supply	Order no.	Price
Remote control monitor				
Group II, category (1) G	Relay	24v DC	**SR2301**	**$1,675.80**

ATEX approval	Process fitting	Material	Order no.	Price
ATEX Rated Flow Sensors, connect to control monitor (see above)				
Group II, category (2) G	G1/4"A	stainless steel (316L)	**SF220A**	**$563.50**

Compressed air meter ifm energy management systems

Compressed air supply system solutions

Scan to learn more

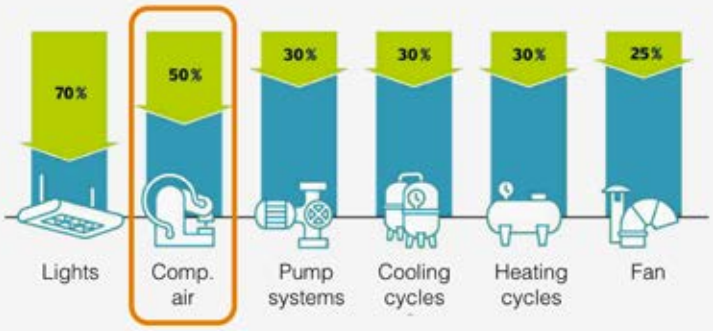
- **Energy management system to DIN EN ISO 50001**
- **Measures flow, pressure and temperature simultaneously removing the need for multiple sensors**
- **Production and transport of compressed air are the second largest cause of energy costs.**
- **A compressed air system offers many opportunities to reduce operating costs.**

WHERE DO THE HIGH ENERGY COSTS ORIGINATE?

Energy savings

Identified saving potentials be implemented partly by fundamental, partly by small measures.

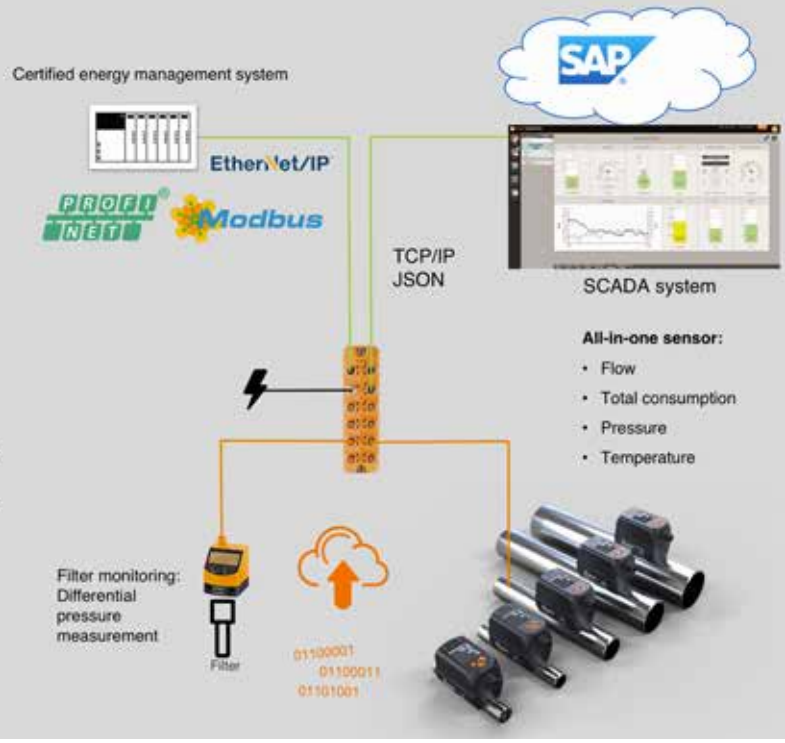
The chart shows common energy savings potantial



Measurement instrumentation from ifm

Secure benefits with ifm

- Maximum potential for savings using high quality measurement instrumentation
- Use IO-Link independent of higher bus systems
- Documentation available at a click thanks to co-ordinated software
- Simple trend analysis supported by graphics in the monitoring software
- Parameter setting and condition monitoring on the control level for each sensor which has been installed.



Compressed air meters

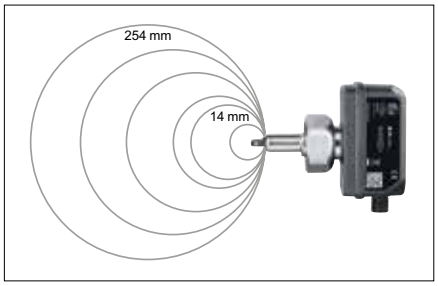
4 IN 1: FLOW METER DETERMINES THE CONSUMPTION OF FOUR INDUSTRIAL GASES

Measuring range [Nm3/h]	Pressure rating [bar]	Process connection	Order no.	Price
Defined pipe length for compressed air in industrial use				
0.05...15	16	G 1/4 (DN8)	**SD5500**	**$1,695.10**
0.25...75	16	R 1/2 (DN15)	**SD6500**	**$1,695.10**
0.8...225	16	R 1 (DN25)	**SD8500**	**$1,795.80**
1.4...410	16	R1 1/2 (DN40)	**SD9500**	**$2,225.50**
2.5...700	16	R 2 (DN50)	**SD2500**	**$2,333.30**
8...2,110	16	G1	**SD1540**	**$1,783.10**
Defined pipe length for industrial gases				
N_2: 0.04...15 Ar: 0.08...24.04 CO_2: 0.04...14.36	16	G 1/4 (DN8)	**SD5600**	**$1,843.80**
N_2: 0.24...73 Ar: 0.39...118.2 CO_2: 0.24...71.7	16	R 1/2 (DN15)	**SD6600**	**$1,843.80**
N_2: 0.8...225.0 Ar: 1.2...366.6 CO_2: 0.8...223.6	16	R 1 (DN25)	**SD8600**	**$1,942.10**

Accessories

Calibration certificate for flow sensors (SD)	Order no.	Price
ISO calibration certificate (6 x calibration points)	**ZC0020**	**$644.50**
DAKKS calibration certificate (6 x calibration points)	**ZC0075**	**$1,297.80**

LARGE DUCT AIR FLOW MONITOR



Adjustable internal pipe dia. of 14 - 254 mm.

Measuring range	Pressure rating [bar]	Process connection	Order no.	Price
Adjustable pipe diameter				
0.3...26260 m³/h	16	G 1 female	**SD1540**	**$1,783.10**

Accessories

Type	Description	Order no.	Price
	Process connection, weld adapter	**E40195**	**$113.00**

BASIC AIR FLOW SWITCH

Application	Output	Power Supply	Order no.	Price
Remote Amplifiers				
Air, -10...50 c	3A Relay	24v DC	**SL5101**	**$255.00**
Air, -10...50 c	3A Relay	80-250 AC/DC	**SL0301**	**$282.30**

Temperature sensors and mounting accessories

Selection Guide

Scan to learn more

	Contents	Sensor type	Max measuring range [°C]	Max installation depth	Display	One piece design	Approvals	Pages
Temperature sensors in contact with the mediumt	Compact temperature sensors for industrial applications	TA TN TK TV	-50...150 -50...150 -20...140 -50...150					124 125 125 125
	Compact temperature sensors for mobile applications	TA / TU TM	-50...150 -40...150					124-125
	Compact temperature sensors for hygienic applications	TA TD TCC	-50...200 -50...150 -25...160					128-129
	Sensors with fast response times for hygienic applications	TA TR TP	-50...200					130
	Temperature sensors – the modular concept for industrial and hygienic applications	TM TS TT	-40...150 -100...600 -40...150					130-131
	Accessories Process adapters, thermowells, connection cables and certificates							131
Without contact	Infrared temperature sensors for hot objects & accessories	TW TW	50...1350 -30...2500					130
	Calibration *							

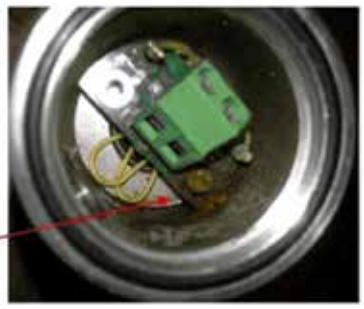
* German factory calibration must be ordered separately when placing a temperature sensor PO
This service will result in 4 - 6 weeks delivery delay
For local calibration by a certified laboratory, we can provide partner information on request

Humidity	Air humidity sensors	LDH						132
Oil Monitor	Oil condition monitor	LDP						133

ifm shop registration

Temperature sensor technology

TIME FOR AN UPGRADE?



PROBLEM

- Temperature head transmitters can lead to condensation build-up in poorly sealed terminal heads.
- A serious issue in F&B plant, routinely washed with high pressure hot water. Moisture laden air leads to water condensation accumulation inside the terminal chamber, as temperatures vary.
- Also experienced in outdoor applications. Moisture is a series problem that leads to calibration loop changes, short circuits and eventually instrument failure.

AWARD WINNING IFM TEMPERATURE SENSOR TECHNOLOGY

Green = OK Blue = Pre-alert Red = Error!

reddot winner 2020

SOLUTION - ifm technology

- ifm have addressed this issue with state of the art welded head temperature instruments sealed to IP69k.
- The PT1000 sensor element, evaluation electronics and LED display are calibrated to operate as a system solution for your process monitoring
- The one-piece device eliminates wiring issues and moisture ingress, with protection to IP69k

Temperature sensors

INDUSTRIAL TEMPERATURE TRANSMITTERS, 4...20 mA OUTPUT

Type TA temperature transmitter

Scalable analogue output 4...20 mA
IO-Link. T05 / T09: 1 / 3 s.
Pressure-resistant up to 400 bar.
Accuracy [K]: ± 0.3 + (± 0.1 % Ms).

Measuring range [°C]	Process connection	Installation depth [mm]	Factory setting [°C] 0...200 Order no.	Factory setting [°C] -50...150 Order no.	Factory setting [°C] 0...100 Order no.	Price
Analogue output 4...20 mA						
-50...150	G 1/4	25	-	TA2105	-	$368.80
		50	-	TA2115	-	$372.70
		100	-	TA2135	-	$379.60
		150	-	TA2145	-	$386.70
	G 1/2	30	-	TA2405	-	$391.60
		50	-	TA2415	TA2417	$395.10
		100	-	TA2435	TA2437	$401.50
		150	-	TA2445	TA2447	$408.40
Process connection, probe Ø 6 mm						
-50...200	Ø 6 mm	50	TA2212	-	-	$385.40
		100	TA2232	-	-	$392.00
		150	TA2242	-	-	$398.90
		250	TA2262	-	-	$412.50
		350	TA2292	-	-	$427.10

HYGIENIC TEMPERATURE TRANSMITTER, 4...20 mA OUTPUT

Type TA temperature transmitter

Operating status indication via LED.
Scalable analogue output 4...20 mA.
Hygienic process connections.
Installation depths of 25 to 150 mm.
IO-Link. T05 / T09: ≤ 0.5 / ≤ 2 s.
Accuracy [K]: ± 0.3 + (± 0.1 % Ms).

Measuring range [°C]	Process connection	Installation depth [mm]	Factory setting [°C] 0...200 Order no.	Factory setting [°C] -10...150 Order no.	Factory setting [°C] 0...100 Order no.	Price
Process connection G1/2 with sealing cone						
-50...200	G 1/2 with hygienic sealing cone	30	TA2502	-	-	$442.80
		50	TA2512	-	-	$446.10
		50	-	-	TA2517	$446.10
		50	-	TA2511	-	$446.10
		100	TA2532	-	-	$452.70
		100	-	-	TA2537	$452.70
		100	-	TA2531	-	$452.70
		150	TA2542	-	-	$459.80

Accessories TA25 series hygienic weld fittings

Type	Description	Order no.	Price
	G1/2 - weld fitting (for Tanks)	E43300	$60.50
	G1/2 - weld fitting (or Pipes)	E43301	$70.80
	G1/2 - weld fitting (for deep insertion)	E30055	$83.10

HYGIENIC TEMPERATURE TRANSMITTER, 4...20 mA OUTPUT

Type TA132x temperature transmitters

Are spring loaded for a perfect connection to a thermowell.

Accessories
Process adapters, thermowells
Page 131

Measuring range [°C]	Process connection	Installation depth [mm]	Factory setting [°C] 0...200 Order no.	Factory setting [°C] -10...150 Order no.	Factory setting [°C] 0...100 Order no.	Price
Process connection G 3/8 with coupling nut Ø 3 mm						
-50...200	G 3/8 internal thread	83	TA1322	TA1321	TA1327	$525.70

Temperature sensors

HYGIENIC TEMPERATURE TRANSMITTER, 4...20 mA OUTPUT

Measuring range [°C]	Process connection	Installation depth [mm]	Factory setting [°C]			Price
			0...200 Order no.	-10...150 Order no.	0...100 Order no.	
Process connection 1 - 1.5" Tri clamp						
-50...200	Tri-clamp 1 - 1.5"	30	TA2802	-	-	$414.00
		50	TA2812	-	-	$416.80
		100	TA2832	-	-	$423.50
		150	TA2842	-	-	$430.30

INDUSTRIAL TEMPERATURE SWITCH

Type TK temperature sensor

Easy adjustment of the switch points via two setting rings allowing optimum read-out.

Mechanical lock to prevent accidental adjustment.

T05 / T09: 1 / 3 s.

Pressure-resistant up to 400 bar. Accuracy [K]: ± 3.

Measuring range [°C]	Process connection	Installation depth [mm]	Order no.	Price
Normally open / normally closed complementary				
-20...140	G 1/4	50	TK6110	$339.10
2 x NO				
-20...140	G 1/4	50	TK7110	$339.10
1 x NO / 1 x NC				
-20...140	G 1/2	250	TK7460	$388.60

CONFIGURABLE TEMPERATURE SWITCH

Type TV temperature sensor

Two solutions: Continuous transmission of measured values via IO-Link – and two switching outputs.

Tamper free.

T05 / T09: 1 / 3 s.

Pressure-resistant up to 400 bar.

Accuracy [K]: ± 0.3.

Measuring range [°C]	Process connection	Installation depth [mm]	Order no.	Price
2 switching outputs				
-50...150	G 1/4	25	TV7105	$350.50
	G 1/2	30	TV7405	$372.90

INDUSTRIAL TEMPERATURE TRANSMITTER AND SWITCH - LOCAL DISPLAY & CONFIGURATION

Type TN temperature sensor

Selectable colour display. Operation via 3 buttons. 2 x NO / NC or 1 x NO / NC and 1 analogue output 4...20 mA / 0...10 V, scalable. T05 / T09: 1 / 3 s.

Pressure-resistant up to 400 bar.

Accuracy [K]: ± 0.3 + (± 0.1 % Ms).

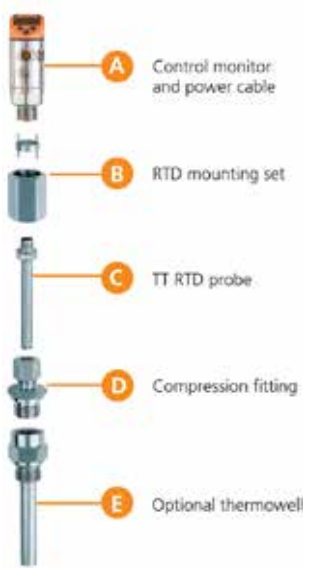
Measuring range [°C]	Process connection	Installation depth [mm]	Factory setting [°C] -50...150 Order no.	Price
2 switching outputs or 1 switching and 1 analogue output 4...20 mA or 0...10 V				
-50...150	G 1/2	30	TN2405	$783.70
		50	TN2415	$786.50
		100	TN2435	$793.60
		150	TN2445	$799.40

Accessories
Process adapters, thermowells
Page 131

Temperature sensors

TEMPERATURE TRANSMITTER AND SWITCH ASSEMBLY

COMPONENT GUIDE TR



Evaluation electronics type TR

Measuring range [°C]	Factory setting [°C]	Process connection	Order no.	Price
1 switching and 1 analogue output 4...20 mA or 0...10 V				
-100...600	-40...300	G 1/2	**TR2439**	**$717.00**
2 switching outputs				
-100...600	-40...300	G 1/2	**TR7439**	**$624.20**

TR evaluation with E30017 mounting set on PT100 / PT1000 probe sensors type TT

Direct connection TR evaluation on PT100 / PT1000 cable sensors type TS

TR or TP evaluation with connection cable on PT100 / PT1000 sensors type TM, TT or TS

PT100 / PT1000 probe sensors type TT

Cable sensors high temperature type TS

Measuring range [°C]	Ø probe / installation depth [mm]	Order no.	Price	Order no.	Price
Applications		**Industry**		**Hygienic**	
-40...150	6 / 100	**TT0281**	**$193.20**	**TT0291**	**$206.80**
	6 / 150	**TT1281**	**$200.50**	**TT1291**	**$213.20**
	6 / 250	-	-	**TT2291**	**$220.60**
	6 / 350	-	-	**TT3291**	**$233.90**
-40...150	10 / 160	**TT1081**	**$211.50**	-	-
	10 / 260	**TT2081**	**$225.70**	-	-
	10 / 360	**TT3081**	**$239.70**		
	10 / 560	**TT5081**	**$267.20**	-	-
Industrial applications					
-100...600	6 / 100	**TS2451**	**$249.20**	-	-
	6 / 150	**TS2452**	**$255.80**	-	-
	6 / 200	**TS2453**	**$262.90**	-	-
	6 / 250	**TS2454**	**$270.00**	-	-

[1] PT1000 sensor element

PT100 / PT1000 cable sensors type TS

Process connection	Measuring range [°C]
Industrial applications	
Ø 6 mm	-40...90
	-50...250
	-50...250
	-100...600 °C
Bolt-on sensor 12 x 8.7 x 51 mm	-40...90
Bolt-on sensor 12.5 x 8.7 x 47 mm	-40...90
Bolt-on sensor ATEX 10 x 18 x 48 mm	-20...115
M5 screw-in sensor	-30...180
M6 screw-in sensor	-30...180
M8 screw-in sensor	-20...115
M12 x 1,5 external	-30...150

Measured signal converter type TP

Measuring range [°C]	Factory setting [°C]	Connection	Order no.	Price
Industrial Analogue output 4...20 mA				
-50...300	-50...150	M12	TP3231	$230.00
	-50...300		TP3232	$230.00
	0...100		TP3237	$230.00
Wash down area (IP69k), Analogue output 4...20 mA				
-100...600	-100...600	M12	TP2009	TBA
	-50...300		TP2008	TBA
	-50...150		TP2005	TBA
	-10...150		TP2001	TBA
	0...100		TP2007	TBA
Industrial Analogue output 0...10 V				
-50...300	0...100	M12	TP9237	$230.00

COMPONENT GUIDE TP

Direct connection TP evaluation on PT100 / PT1000 probe sensors type TT, TS or TM

Cable / connector / length [m]	Order no.	Price
PUR / M12 / 5m	TS5289	$137.10
PTFE / M12 / 0.15m	TS9256[1]	$199.20[1]
PTFE / M12 / 2m	TS2256	$242.10
PTFE / M12 / 2m	TS2451	$249.20
PUR / M12 / 2m	TS2229	$129.70
PUR / – / 2m	TS2239	$88.70
silicone / – / 5m	TS502A[1]	$310.10[1]
silicone / M12 / 2m	TS2759	$147.60
silicone / M12 / 2m	TS2659	$180.50
silicone / – / 2m	TS285A	$293.70
silicone / wire end ferrules / 5 m	TS5951	$166.50

PT100 with process connection type TM

Process connection	Measuring range [°C]	Installation depth [mm]	Order no.	Price
Industrial applications				
G 1/4	-40...150	25	TM4101	$201.60
	-40...150	25	TM5101[1]	$201.60[1]
G 1/2	-40...150	50	TM4411	$228.30
	-40...150	50	TM5411[1]	$228.30[1]
	-40...150	100	TM4431	$233.70
	-40...150	150	TM4441	$240.80
	-40...150	250	TM4461	$254.30
Internal thread M18 x 1.5	-40...125	60	TM9950	$254.80
Hygienic applications				
G 1/2 with sealing cone	-50...140	Flush mount	TM4599	$269.00
G 1/2 with sealing cone	-40...150	50	TM4511	$278.40
	-40...150	100	TM4531	$285.10
	-40...150	150	TM4541	$291.60
Clamp 1 - 1.5"	-40...150	30	TM4801	$249.80
	-40...150	50	TM4811	$252.40
	-40...150	100	TM4831	$259.70
	-40...150	150	TM4841	$266.80

[1] PT1000 sensor element

For more insights:

Temperature sensors

HIGH ACCURACY HYGIENIC TEMPERATURE TRANSMITTER FOR CCP APPLICATIONS

- **CCP = Critical Control Point!**
- **Immediate LED and electronic output alarm when accuracy deviates from calibration limits**

Green = OK Blue = Pre-alert Red = Error!

- **Improved quality assurance in between calibration intervals**
- **Robust design for permanently precise measurements even in demanding environments**
- **Transparent sensor monitoring thanks to logging of the diagnostic values**
- **Simulation function simplifies installation**

Self-monitoring temperature transmitter type TAD
Free 5-point calibration certificate.
Diagnostic and backup function.
Scalable analogue output 4...20 mA.
T05 / T09: 3 / 6 s.
Accuracy [K]: 0.2 (at -10...130 °C).

Adjustable measuring range [°C]	Process connection	Installation depth [mm]	Factory setting -10...150 [°C] Order no.	Price
Analogue output 4...20 mA				
-25...160	G 1/2 Sealing Cone	33	TCC501	$959.70
		50	TCC511	$961.80
		100	TCC531	$968.90
		150	TCC541	$976.00
	1-1.5" Tri Clamp	50	TCC811	$936.20
		100	TCC831	$943.10
	2" Tri Clamp	50	TCC911	$961.80
		100	TCC931	$968.90
	Ø 6 mm	250	TCC261	$916.20
		350	TCC291	$929.50
		450	TCC281	$943.30
		550	TCC201	$957.50

Accessories

Type	Description	Order no.	Price
	G1/2 - weld fitting (for Tanks)	E43300	$60.50
	G1/2 - weld fitting (or Pipes)	E43301	$70.80
	G1/2 - weld fitting (for deep insertion)	E30055	$83.10
	Welding adapter for process sensors; stainless steel (1.4404 / 316L); clamping ring: PEEK; Pressure rating 10 bar; welding adapter Ø 25 mm; Approval EC1935/2004,EHEDG,FDA	E30407	$89.70

ifm registration

Temperature sensors

HYGIENIC TEMPERATURE TRANSMITTER

***Temperature transmitter with type TD display** 4-digit LED display. Scalable analogue output 4...20 mA. Hygienic process connections. Installation depths of 30 to 350 mm.*

T05 / T09: 1 / 3 s.

Accuracy [K]:
± 0.3 + (± 0.1 % Ms).

Factory Setting (configurable with IO-Link) [°C]	Process connection	Installation depth [mm]	Factory setting -10...150 [°C] Order no.	Price
Process connection 1.5" Tri-clamp, analogue output 4...20 mA				
-50...150	Clamp 1 - 1.5"	30	TD2801	$556.40
		50	TD2811	$558.80
		100	TD2831	$565.70
		150	TD2841	$572.80
Process connection 1.5" Tri-clamp, analogue output 4...20 mA				
0...100	Clamp 1 - 1.5"	30	TD2807	$556.40
		50	TD2817	$558.80
		100	TD2837	$565.70
		150	TD2847	$572.80
Process connection G1/2, analogue output 4...20 mA				
0...100	G1/2 (BSP-P)	100	TD2531	$590.90
		150	TD2541	$598.00

Accessories

Type	Description	Order no.	Price
Cable . M12 . 4pole (0.34mm sensor) . IP69K, 4A max			
	2.0 m, grey, MPPE cable	EVF064	$47.30
	5.0 m, grey, MPPE cable	EVF001	$48.60
	10.0 m, grey, MPPE cable	EVF002	$60.00
	15.0 m, grey, MPPE cable	EVF092	$77.90
	25.0 m, grey, MPPE cable	EVF003	$94.00
	2.0 m, grey, MPPE cable	EVF067	$47.80
	5.0 m, grey, MPPE cable	EVF004	$48.60
	10.0 m, grey, MPPE cable	EVF005	$60.00
	15.0 m, grey, MPPE cable	EVF094	$74.70
	25.0 m, grey, MPPE cable	EVF006	$94.00
	5.0 m, grey, MPPE cable, PNP, LED	EVF007	$57.50
	10.0 m, grey, MPPE cable, PNP, LED	EVF008	$68.00
	25.0 m, grey, MPPE cable, PNP, LED	EVF009	$103.50
M12 Wirable plugs and sockets, 4-pole, IP69K, 4A max			
	M12, Wirable socket, angled	EVF566	$53.10
	M12, Wirable socket, straight	EVF565	$53.10
	M12, Wirable plug, angled	EVF568	$53.10
	M12, Wirable plug, straight	EVF567	$53.10

***Accessories**
Process adapters, thermowells
Pages 131*

Temperature sensors

PASSIVE SURFACE TEMPERATURE PROBE

- Clamp-on solution reduces installation costs and effort
- Also suitable for use in hygienic areas
- Fast response time and high measurement accuracy
- for a clear process overview

External pipe diameter	Nominal width	Temperature measuring range	Measuring Accuracy	Order no.	Price
Response time T09 25 [s], protection rating IP69K					
21…24 mm	DN20	-25...160 °C	2% +/- 0.25K	**TSM301**	**POA**
25…30 mm	DN25	-25...160 °C	2% +/- 0.25K	**TSM401**	**POA**
32…36 mm	DN32	-25...160 °C	2% +/- 0.25K	**TSM501**	**$258.30**
38…45 mm	DN40	-25...160 °C	2% +/- 0.25K	**TSM601**	**$258.30**
48…54 mm	DN50	-25...160 °C	2% +/- 0.25K	**TSM701**	**$258.30**

NON-CONTACT TEMPERATURE SENSORS

- IO-Link, analogue output 4...20 mA and switching output, freely programmable
- Adjustable for different target materials
- Scratch-resistant precision lenses for minimum sensitivity to ambient light
- LED pilot light for alignment and control
- Simulation function: activated on the sensor or by external control signal

Measuring range [°C]	Output 4...20 mA and switching output	Order no. withoutt LED pilot light	Price
Measuring system			
0...1000	8...14	**TW2000**	**$2,427.10**

Temperature sensor accessories

1 Progressive ring fitting

No.	Type	Device connection	Process connection	Order no.	For sensor type				Price
Industrial applications									
1	Progressive ring fitting	Ø 6 mm	G 1/2	**E30047**	TA	TD	TCC	TT	**$61.30**
1	Progressive ring fitting	Ø 10 mm	G 1/2	**E30016**				TT	**$60.20**

2 *Clamp adapter*

3 Screw-in thermowell up to 16 bar

No.	Device connection	Process connection	Installation depth [mm]	Order no.	For sensor type				Price
Hygienic applications									
2	Clamp adapter	Ø 6 mm	G 1/2 with sealing cone	**E30144**	TA	TD		TT	**$115.10**
Industrial applications									
3	G 1/2	G 1/2	27	**E37600**	**TA241x**	**TN2415**	**TM4411**	**TT0281[1)]**	**$103.90**
			74	**E37610**	**TA243x**	**TN2435**	**TM4431**	**TT1281[1)]**	**$110.80**
			82	**E35010**				**TT1081[4)]**	**$122.40**
			124	**E37620**	**TA244x**	**TN2445**	**TM4441**	**TT2281[1)]**	**$117.30**
			174	**E37630**				**TT2281[1)]**	**$124.20**
			182	**E35020**				**TT2081[4)]**	**$136.20**
			224	**E37640**			**TM4461**	**TT3281[1)]**	**$131.30**
			282	**E35030**				**TT3081[4)]**	**$150.40**
			482	**E35050**				**TT5081[4)]**	**$177.70**

7 Screw-in thermowell up to 16 bar

6 Welding thermowell up to 300 bar

No.	Device connection	Process connection	Installation depth [mm]	Order no.	For sensor type				Price
Hygienic applications									
4	G 1/2 with sealing cone	G 1/2 with sealing cone	68	**E37511**	**TA253x**	**TD253x**	**TM4531**	**TT1291[2)]**	**$155.60**
			118	**E37521**	**TA2542**	**TD254x**	**TM4541**	**TT2291[2)]**	**$162.50**
5	G 1/2 with sealing cone	Ø 34 mm	49	**E37411**	**TA2512**	**TD251x**	**TM4511**	**TT0291[2)]**	**$166.10**
			99	**E37421**	**TA253x**	**TD253x**	**TM4531**	**TT1291[2)]**	**$173.00**
			149	**E37431**	**TA2542**	**TD254x**	**TM4541**	**TT2291[2)]**	**$180.50**

6 Adapter

No.	Type	Device connection	Process connection	Order no.	For sensor type		Price
6	Stainless steel adapter	M18 x 1.5	G 1/2	**E30073**	TM	TN	**$94.70**
	Titanium adapter	M18 x 1.5	G 1/2	**E40114**	TM	TN	**$276.90**

Humidity sensors

Scan to learn more

AIR HUMIDITY SENSOR

- Simple monitoring of temperature and air humidity to protect electrical installations, control cabinets or production processes
- Plug & Play thanks to screw or rail mounting and M12 connection
- Data output per analogue signal

Temperature Measuring Range [°C]	Output	IP rating	Order no.	Price
Humidity measuring sensor				
-40...60	2 x 4...20 mA	IP 20, III	**LDH290**	**$372.90**
-40...80	IO-Link	IP 20, III	**LDH292**	**$363.20**

OIL HUMIDITY SENSOR (CAPACITIVE PRINCIPLE)

NEW PRODUCT

Connection	Temperature Measuring Range [°C]	Output	IP rating	Order no.	Price
Humidity measuring sensor					
G 3/4	-40...105	2 x 4...20 mA	IP 67	**LDH100**	**$1,307.40**
G 1/2	-40...120	2 x 4...20 mA	IP 68	**LDH110**	**$1,073.80**
G 1/2	-40...120	IO-Link	IP 68	**LDH112**	**$1,043.60**

Accessories

Type	Description	Order no.	Price
	2 m, 8 pole, M12, black, PUR cable	**E11231**	**$78.80**
	5 m, 8 pole, M12, black, PUR cable	**E11232**	**$97.00**
	10 m, 8 pole, M12, black, PUR cable	**E12260**	**$108.20**

Oil condition sensors

OIL PARTICLE MONITOR

Scan to learn more

- **Trend monitoring by analysis of the particle concentration**
- **Indication of purity class on the LCD display**
- **Applications up to 420 bar**
- **Intuitive, user-friendly handling**
- **CAN bus, analogue and switching outputs**

The LDP is designed as a hydraulic system component.

This device is an optical particle monitor designed to assess the purity of hydraulic oils. It operates on the principle of light extinction, which measures the attenuation of light caused by particles suspended in the fluid.

The detected particle levels are then converted into standardized cleanliness classes, which are displayed on the device. Multiple interfaces are available to read and transmit the measured data.

Medium Temp	Medium Pressure	Process connection	Outputs	Accuracy	Order no.	Price
Media: mineral oils (e.g. HLP); ester oils (e.g. HEES); biodegradable oils (e.g. HETG),						
-10...80°C	< 420 bar	Threaded connection M16 x 2 external thread Minimess	1x 4...20 mA 1 x digital	+/- 1%	**LDP100**	**$4,730.80**

Protection of control cabinets and servers.

Electrical switch gear should be protected against humid air! This also applies to control cabinets in automated production plants. Not least, in hygienic conditions, experienced in the food industry. Humidity can enter the control cabinet due to the frequent cleaning processes. Via fittings, air slits, defective sealings, or simply doors that have not been closed properly… If the humidity inside remains undetected, corrosion will follow. A simple humidity sensor can keep your assets protected, 24/7!

Conductivity Sensors

A new approach to analytical sensors

Scan to learn more

- **Reduce inaccuracies associated with a time-based cleaning process**
- **Improve process performance with flexible measurement points**
- **Compact, high-quality sensor design prevents failures and unplanned downtime**
- **Simplify your installation and commissioning processes**
- **Loss-free signal transmission of measurement values**
- **Accuracy conductivity 2 % MW ± 25 µS/cm**

Process connection	Measurement range conductivity [µS/cm]	Measurement range [°C] medium temperature	Accuracy conductivity	Order no.	Price
Application: Media differentiation between product /rinsing water / cleaning agent					
G 1/2	100...15,000	-25...100; (< 1 h: 150)	10 % MW ± 25 µS/cm	**LDL100**	**$1,301.60**
Application: Media ultra pure water					
G 1/2	0.04...1,000	-25...100; (< 1 h: 150)	10 % MW ± 25 µS/cm	**LDL101**	**$1,816.70**

Accessories

Type	Process connection	Order no.	Price
	G 1/2 I – G 3/4 A adaptor	**E43302**	**$83.30**
	G 1/2 I – G 1 A adaptor	**E43303**	**$150.80**
	G 1/2 into 1-1.5" Tri clamp adaptor with leakage port	**E43311**	**$143.50**
	G 1/2 into 2" Tri clamp adaptor with leakage port	**E43312**	**$197.70**
	G 1/2 into 1-1.5" Tri clamp adaptor	**E33401**	**$111.20**
	G 1/2 into 2" Tri clamp adaptor	**E33402**	**$111.20**

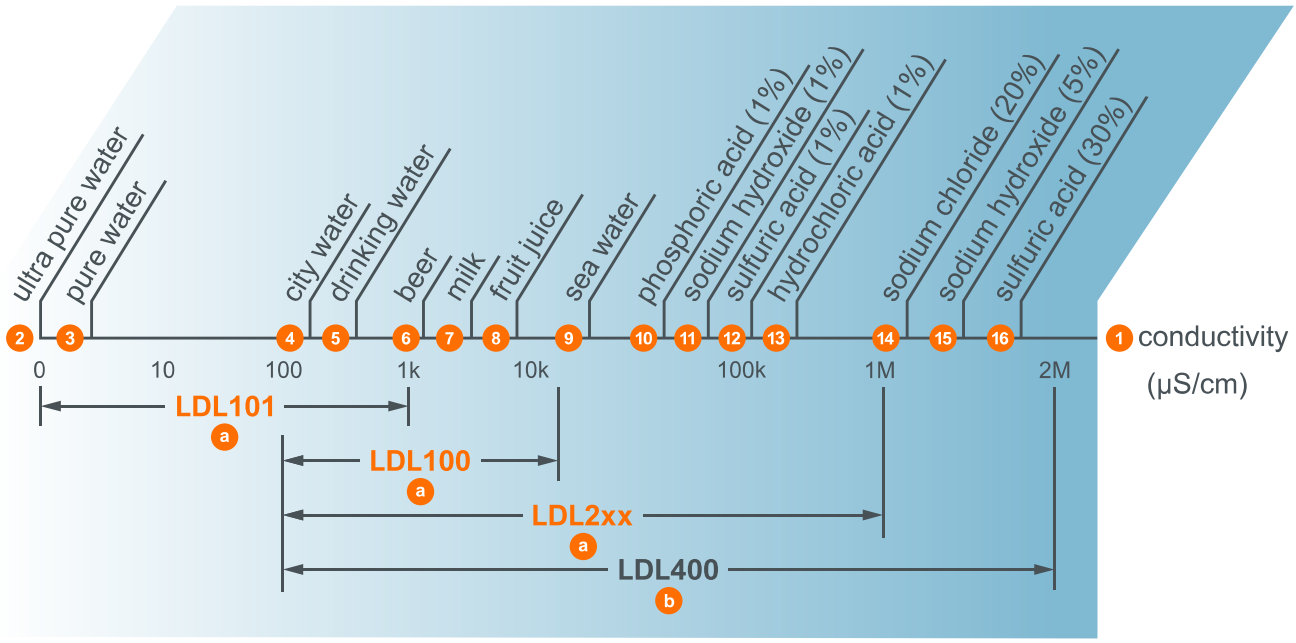
High Accuracy Conductivity Sensors

Image	Process connection	Measurement range conductivity [µS/cm]	Measurement range [°C] medium temperature	Order no.	Price
Application: Media differentiation between product /rinsing water / cleaning agent					
	G 1	100...1,000,000	-25...100; (< 1 h: 150)	**LDL200**	**$2,623.60**
Inductive conductivity measurement like LDL200 with extended probe length for tri clamp					
	G 1	100...1,000,000	-25...100; (< 1 h: 150)	**LDL201**	**$2,774.60**
	G 1/2	100...1,000,000	-25...100; (< 1 h: 150)	**LDL220**	**$2,689.20**
	G 1.5	100...2,000,000	-25...100	**LDL400**	**$1,418.00**

Accessories

Type	Description	Order no.	Price
	Tri-clamp – G 1 Aseptoflex Vario 1.5" with leakage port	**E33208**	**$128.70**
	Tri-clamp – G 1 Aseptoflex Vario 2" with leakage port	**E33209**	**$147.80**
	D50 – G 1 external thread Aseptoflex Vario with leakage port	**E30130**	**$122.40**
	D38 – G 1 external thread Aseptoflex Vario with leakage port	**E30500**	**$122.40**

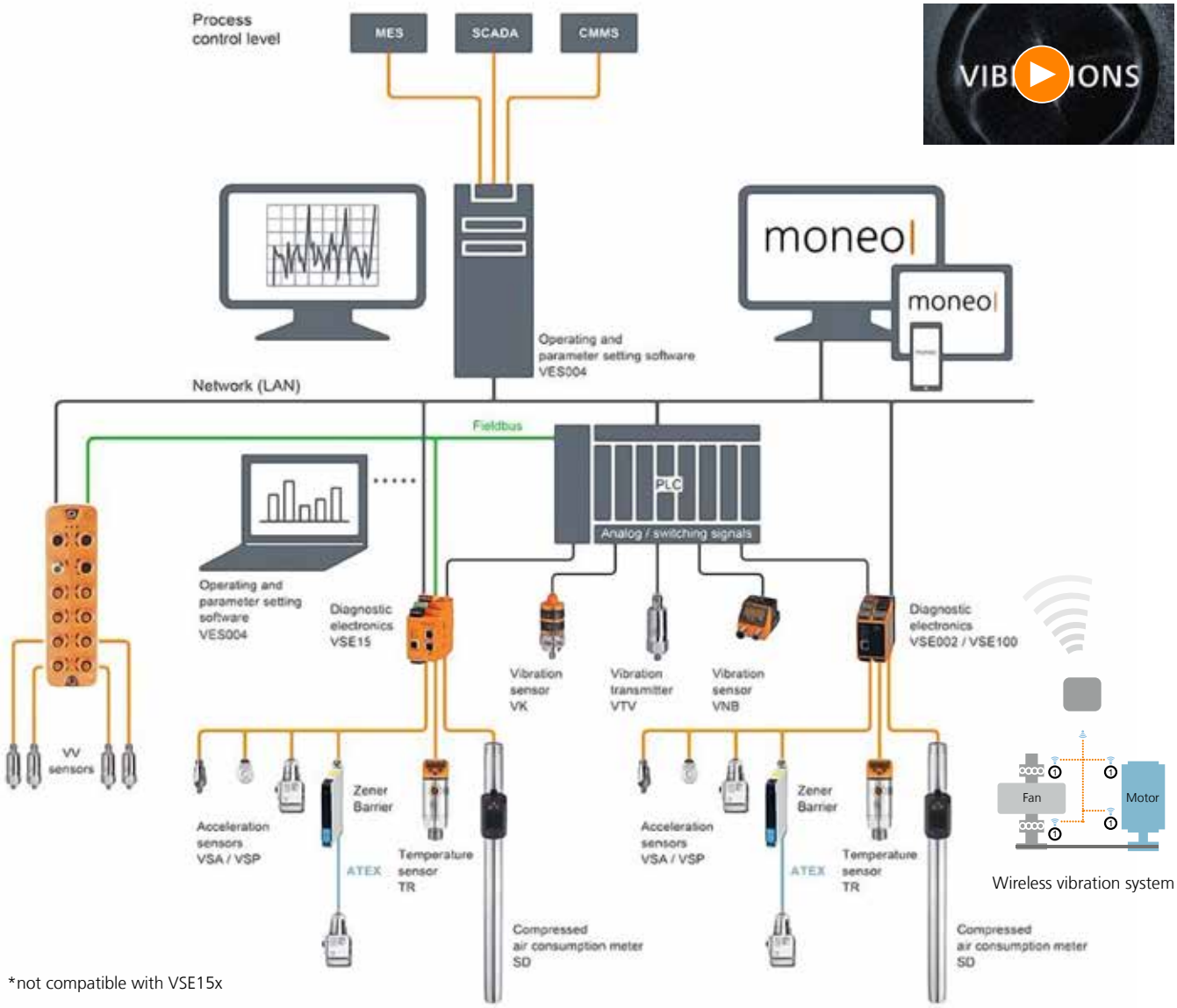
SELECTION GUIDE: OVERVIEW OF CONDUCTIVITY SENSORS AND THEIR MEASURING RANGES



Plant condition monitoring

Vibration accelerometers for all applications

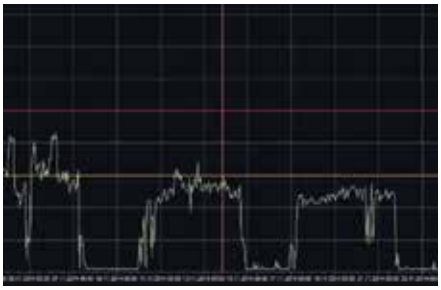
Scan to learn more



*not compatible with VSE15x

Vibration sensors on the drives detect even smallest vibrations.

The VSE100 evaluation unit evaluates the signals from up to four vibration sensors.



Vibration characteristics can be visualised via PC in a control room. Operators can set limits (yellow and red lines for pre-alarm and main alarm).

Plant condition monitoring

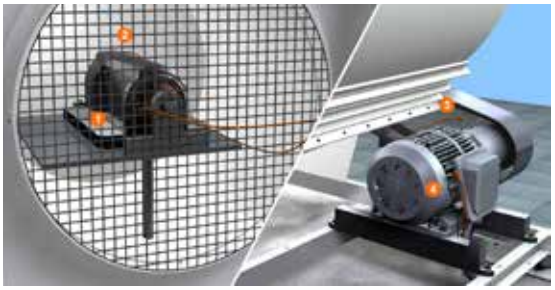
MOTOR MONITORING

Electric motors drive nearly all industrial machines and processes. We depend on motors to run without interruption. Like any machine, motors are subjected to damaging forces such as misalignment, shaft overload, and lack of lubrication to name a few.

How could you improve your overall operational effectiveness?

Motors are often overlooked or are located in inaccessible locations. Implementing RTM (Real Time Maintenance) strategy can safeguard your motors and prevent common failures. This reduces unplanned downtime and secondary damage which, in turn, reduces your maintenance cost and loss of production.

DUCTED FAN MONITORING



Fans are used in virtually every manufacturing plant and typically, they are located out of sight of normal daily traffic.

Remote monitoring for wear on bearings, shaft or blade unbalance, etc. can reduce unplanned downtime events and improve your overall plant efficiency.

CENTRIFUGAL PUMP MONITORING

Pumps are one of the most common pieces of equipment in all sectors of industry. Uninterrupted flow from pumps is vital to keep operations running in applications from heating and cooling systems to product storage and delivery.

How can you improve your overall operational effectiveness?

Most often, pumps are overlooked until they stop working. Remote monitoring for wear on motors, bearings, shafts, impeller unbalance, or cavitation can reduce unplanned downtime events.

SUBMERSIBLE PUMP

Submersible pumps do the essential – but dirty work – of transporting sewage to treatment plants. Prone to blockages, ragging, and general wear and tear, pumps need to be monitored to avoid events such as overflow and environmental contamination of public and residential areas.

WIRELESS VIBRATION MONITORING SYSTEM + IoT CORE FOR MONEO IMPLEMENTATION

Battery-powered vibration sensor VWV

- For overall vibration and temperature monitoring in places that are difficult to access
- Radio technology with intelligent mesh topology for efficient data transmission
- Easy implementation from sensor to data visualisation

Plant condition monitoring

SOLUTION SELECTION

VIBRATION

What if your equipment could provide alarms before it fails? The detection and integrated evaluation of vibration signals serves as the basis for the seamless integration of online condition monitoring and real-time maintenance into automation and control systems.

ELIMINATE UNPLANNED DOWNTIME DUE TO EQUIPMENT FAILURES.

Monitor key machine condition indicators to predict and plan maintenance activities.

Implement advanced real-time vibration monitoring without the complexity of traditional systems.

Integrate easily into your process systems

		Vibration sensor platform			
		Single point	Multiple points	IO-Link monitoring	Programmable Edge controller
Application	Machines	VK VT	VN	VV	VSE
Type 1 machines **Basic monitoring** Simple machines, single switch / analog output	Simple motors and fans	++	++	+++	
Type 1 machines **Multiple measurements and locations** Multiple indicators for broad range of fault conditions	Indirect driven fans and pumps		++	+++	+
Type 1 / Type 2 machines **Multiple measurement Ethernet system** Easy to deploy, multiple points, networking capability	Blowers and simple speed reducers			++	+++
Type 3 machines **Complex machine and process monitoring** Machines requiring multiple points with root cause capability and process monitoring	Multi-stage compressors and machine tools *** -- use VV for process force monitoring only**			+*	+++

Plant condition monitoring

WHY PREDICTIVE MAINTENANCE MAKES SENSE

VIBRATION CAUSES:

Looseness, unbalance

Misalignment

Rolling element bearing

Gearbox Meshing, tooth fault

Pump Eccentricity, cavitation

- **What if your production equipment was always available as planned?**
- **What if your cycle time was never compromised because of a damaged machine?**
- **What if your production equipment self-detected and alerted you of quality defects?**

Applying Real-time Maintenance (RtM) technologies to your production equipment increases equipment availability, maintains machine throughput, and minimizes material losses.

COMMON INDUSTRIAL MAINTENANCE STRATEGIES

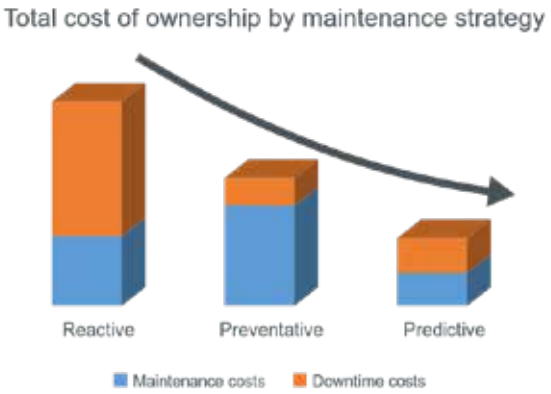
There are 3 basic types of industrial maintenance processes and each have costs associated with them.

Reactive maintenance -- highest total cost of ownership. Run-to-failure strategy and unplanned downtime is usually more expensive than planned downtime and typically there is secondary damage to other components.

Preventative maintenance -- downtime is scheduled prior to failure. Carries a high cost because parts and labor are consumed prematurely.

Predictive or Condition-based maintenance -- uses RtM technology to optimize equipment use. Maintenance is performed only when necessary without production loss.

TOTAL COST OF OWNERSHIP BY MAINTENANCE STRATEGY



RTM TECHNOLOGIES FOR PREDICTIVE MAINTENANCE

Advances in technologies for industrial networks, reduction in size and cost of computational power, and advances in smart sensors are making predictive systems a reality. These innovations are changing the way companies manage their equipment maintenance. Operational worthiness in real time is key to improving OEE (Overall Equipment Effectiveness) and increasing profits. Implementing RtM is at the core of any Industry 4.0 initiative. With ifm RtM products, machines can communicate their operational status in real time, automatically plan maintenance, reduce downtime, and improve quality – all improving your bottom line.

For more insights:

Plant condition monitoring

VIBRATION MONITORING WITH IO-LINK

VVB001 sensor Industrial-grade machine protection integrates directly into your existing control platform.
Machine condition is continually monitored for common fault conditions of impacts, component fatique, and friction.
This allows predictable scheduling of maintenance, before major damage or failure and production downtime.

Machines are continuously and permanently protected.

- Simple installation
- No control cabinets or extensive wiring required
- Accurate equipment condition assessment
- Automated alerts
- Root cause analysis tools without the complexity and high price
- Leverage your existing control network for process and Real-time Maintenance

Measurements

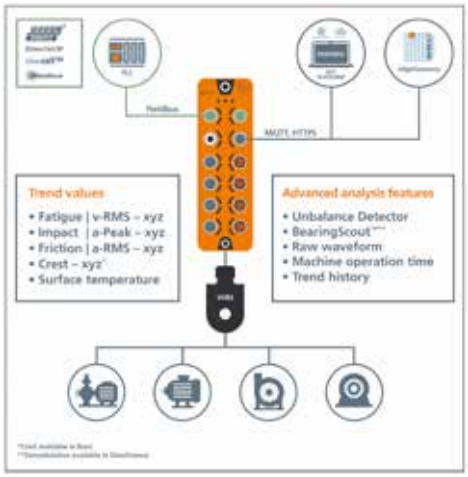
The VVB001 design aims to simplify the primary categories of machine failure. Unlike typical single measurement systems. VVB001 simultaneously monitors equipment for the (5) categories of machine problems:
1. Impact 2. Fatigue 3. Friction 4. Severity 5. Temperature.

Embedded IO-Link technology provides this data in real time, giving the VVB001 sensor the capability to predict pending failures & mitigate catastrophic damage.

Part No.	Machine optimization
	Fast (> 600 rpm) and large (> 400 hp)
	Slow (120…600 rpm) and large (> 400 hp)
VVB001	Fast (> 600 rpm) and small (< 400 hp)
	Slow (120…600 rpm) and small (< 400 hp)
	Industrial machines

IO-LINK SYSTEMS FOR CONTINUOUS VIBRATION MONITORING AND DIAGNOSTICS

Description	Order no.	Price
Vibration sensor; PNP/NPN; (configurable); NO / NC; (parameterisable); Measuring range of vibration 0...50 g; Measuring range of vibration 0...45 mm/s; Frequency range 2...10000 Hz; Protection to IP69K; M12 Connector	VVB001	$843.70
Vibration sensor; PNP/NPN; (configurable); NO / NC; (parameterisable); Measuring range of vibration 0...45 mm/s; Frequency range 2...5,600 Hz; Protection to IP69K; M12 Connector	VVB305	$767.80

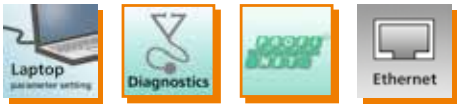


- VVB305 - proven indicators monitored in 3 dimensions
- Data flow towards control system and IT level
- Simple limit value setting to ISO 20816-3

North Otago Irrigation pump station, employs ifm IO-Link condition monitoring systems. This state of the art pump station transfers 2 m^3 /s

Plant condition monitoring

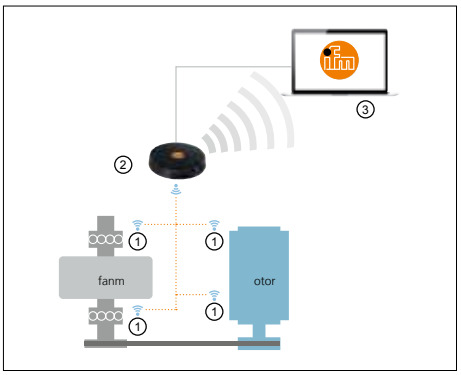
SYSTEMS FOR CONTINUOUS VIBRATION MONITORING AND DIAGNOSTICS



Type	Description	Order no.	Price
	Profinet IO Device Class C	VSE150	$2,403.70
	Ethernet/IP	VSE151	$2,403.70
	Modbus TCP	VSE153	$2,403.70
	Diagnostic electronics for vibration sensors VSE, Input/ Output Total: 8	VSE003	$1,426.60

Accelerometer

Type	Description	Order no.	Price
	Vibration Sensor, IP68/69K, 0 to 10mA output	VSA001	$454.20
	Acceleration sensor; Measuring range of vibration -50...50 g; Frequency range 2...10000 Hz; Ambient temperature -55...125 °C; IP 67; Connector	VSP001	$544.40
	Vibration sensor ATEX for hazardous areas	VSP01A	$1,022.90
	Vibration sensor submersible: Large operating temperature range and high protection rating for the requirements of harsh industrial environments	VSP004	$1,044.20
	Vibration sensor: Large operating temperature range and high protection rating for the requirements of harsh industrial environments	VSP003	$648.50
	3 measurement axis. Acceleration sensor; Measuring range of vibration -40...40 g; Frequency range 0...4500 Hz; Ambient temperature -30...85 °C; IP 69K; cable	VSM101	$1,156.30
1	Measuring range of vibration [g] -16...16 Measuring range of vibration [mm/s] 0...25 Frequency range [Hz] 10...1000	1 Axis 3 Axis	VWV001 VWV002	$529.50 $565.90
2	Wireless vibration sensors gateway	ZB0929	ZB0929
	2 switching outputs, or 1 switching output and 1 4...20 mA (set via pushbuttons), 1 input 4...20 mA (VNA001)	VNB001	$1,026.20



1) VW Vibration sensor
2) ZB0929 Gateway
3) moneo|RTM

Accessories

Type	Description	Order no.	Price
	Parameter software	VES004	$337.60
	octavis OPC server software German / English	VOS001	$1,085.10
	Mounting Accessory (for electrical isolation)	E30132	$53.10

VIBRATION TRANSMITTER AND SWITCH

Description	Order no.	Price
Vibration transmitter to ISO 10816, measuring range RMS: 0...25 mm/s, analogue output 4...20 mA, 24vDC, M12 connector + switching output.	VKV021	$460.50
Vibration transmitter to ISO 10816, measuring range RMS: 0...50 mm/s, analogue output 4...20 mA, 24vDC, M12 connector + switching output.	VKV022	$460.50

Products for mobile automation.

ecomat mobile

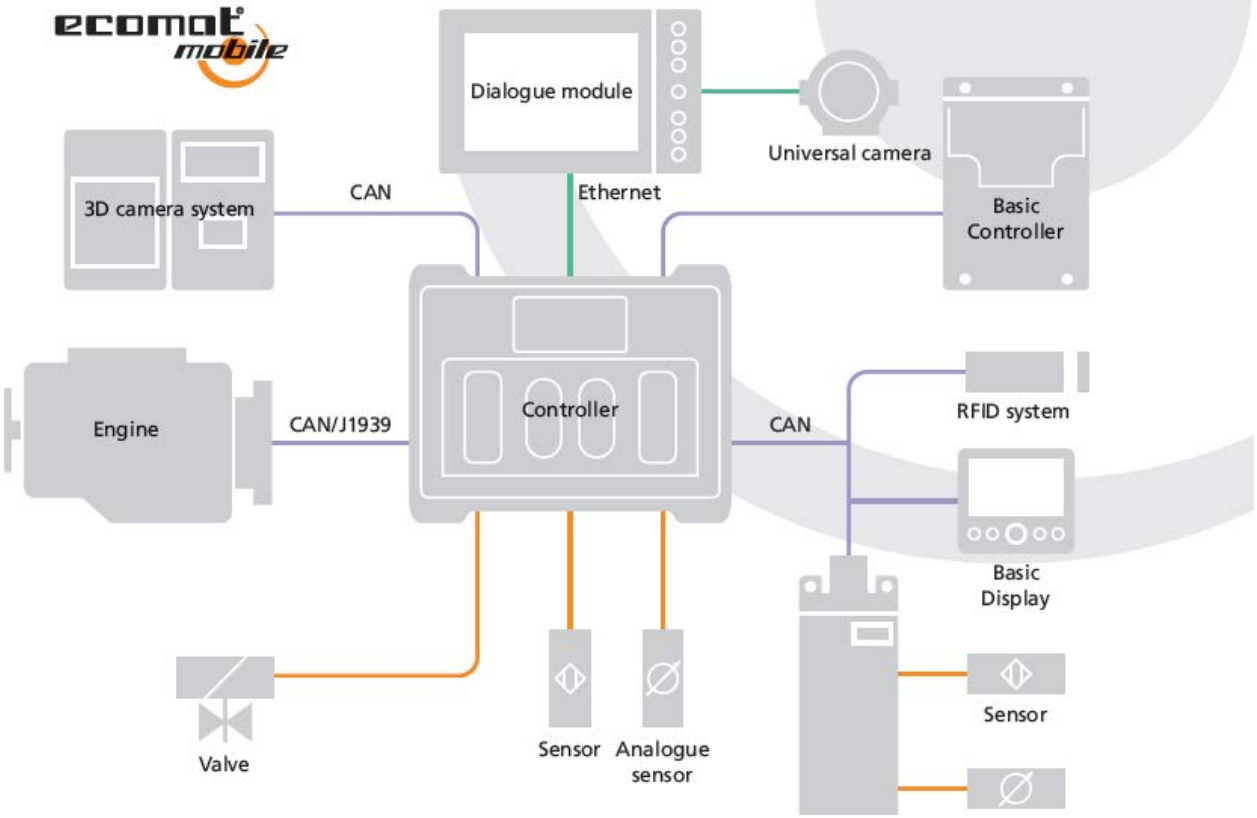
Systems for mobile machines

Scan to learn more

ALWAYS THE FIRST CHOICE. ROBUST, FLEXIBLE, RELIABLE.

E1 | IP 65 IP 67 | Vibration and shock resistant | CAN open | CODESYS

Construction machines | *Agriculture and forestry* | *Transport and logistics* | *Municipal vehicles*



ifm eshop registration

Systems For Mobile Machines

POWERFUL DIALOGUE MODULES FOR MOBILE MACHINES HOUSING OPTIMISED FOR MOBILE MACHINES

LED displays with optical bonding	Order No.				
	CR1152	CR1077	CR1102	CR1204	CR1203
Display	5.0"	7.0"	10.0"	12.0"	12.3"
Prices	$2,907.20	$4,600.40	$5,037.20	$5,775.90	$5,782.80
Aspect ratio	16:10	16:10	16:10	16:10	8:3
Resolution	800 x 480	800 x 480	1280 x 800	1280 x 800	1280 x 480
Colour depth	24 bit	18 bit	24 bit	24 bit	24 bit
Touch	●	●	●	●	●
Controller with GPU	dual core, 800 Mhz	quad core, 1.2 GHz	ARM Quad Core 64 Bit, 1.2 GHz	ARM Quad Core 64 Bit, 1.2 GHz	quad core, 1.2 GHz
Memory (RAM) [GByte]	1	1	1	1	1
Memory (flash) [GByte]	4	8	8	8	8
Buttons (RGB backlit)	4	6	8	10	-
Navigation element	cross	cross	cross	cross	-
COMMUNICATION INTERFACE					
Ethernet	1	2	2	2	2
CAN	4	4	4	4	4
USB 2.0	1	2	2	2	2
Analogue video interfaces	2	4	4	4	4
AUDIO INTERFACES					
Stereo Out (amplified)	1	1	1	1	1
Line In	-	1	1	1	1
Headphones Out	-	1	1	1	1
INPUTS / OUTPUTS					
Digital In BL	2	2	2	2	2
Digital Out 2.5 A	2	2	2	2	2

4.3" BASIC DISPLAY - WITH ADDED FEATURES

Display size	Input functions	Operating elements	Interfaces	Order no.	Price
4.3" colour display	1 x digital input	6 prog. backlit function keys 1 x navigation key with push button	1 x CAN, 1 x EtherNet	**CR1140**	**$1,251.00**
4.3" colour display	1 x digital input	6 prog. backlit function keys 1 x navigation key with push button	1 x CAN, 1 x USB	**CR1141**	**$1,251.00**
4.3" colour display	1 x digital input	Touch screen	1 x CAN, 1 x EtherNet	**CR1142**	**$1,280.30**
4.3" colour display	1 x digital input	Touch screen	1 x CAN, 1 x USB	**CR1143**	**$1,280.30**
4.3" colour display	1 x digital input	Display screen only	1 x CAN, 1 x EtherNet	**CR1144**	**$1,065.10**

Systems For Mobile Machines

ECOMATCONTROLLER

Safety				
I/O total	**Inputs**	**Outputs**	**Order No.**	**Price**
60	32x Digital, 16x Analogue 8x Frequency, 4x Resistance	27x Digital, 1x Analogue 3x PWM 4.0A, 9x PWM 2.5A, 3x H-Bridge	**CR711S**	**$2,855.00**
98	60x Digital, 24x Analogue 16x Frequency, 4x Resistance	36x Digital, 2x Analogue 4x PWM 4.0A, 12x PWM 2.5A, 4x H-Bridge	**CR720S**	**$3,678.40**
124	68x Digital, 24x Analogue 16x Frequency, 4x Resistance	54x Digital, 1x Analogue 6x PWM 4.0A, 18x PWM 2.5A, 6x H-Bridge	**CR721S**	**$4,683.20**

BASIC CAN BUS CONTROLLERS, IP20

I/O total	Input functions	Output functions	Interfaces	Order no.	Price
20	12 x digital, 4 x analogue (U/I) 4 x frequency, 4 x resistance	8 x digital, 8 x PWM	2 x CAN	**CR0401**	**$463.90**
24	12 x digital, 4 x analogue (U/I) 4 x frequency, 4 x resistance	12 x digital, 2 x PWM-I 10 x PWM	2 x CAN	**CR0403**	**$619.10**
16	8 x digital, 4 x analogue (U/I) 4 x frequency, 4 x resistance	8 x digital, 8 x PWM-I 8 x PWM, 4 x H bridge	2 x CAN	**CR0411**	**$640.60**
14	8 x digital, 4 x analogue (U/I) 4 x frequency, 4 x resistance	6 x relay	2 x CAN	**CR0431**	**$647.50**
24	12 x digital, 8 x analogue (U/I) 4 x frequency, 4 x resistance	12 x digital, 12 x PWM, 2 x PWM-I	2 x CAN	**CR403S**	**$657.60**
32	16 x digital, 12 x analogue (U/I) 4 x frequency, 4 x resistance	16 x digital, 12 x PWM, 4 x PWM-I	2 x CAN	**CR413S**	**$1,075.90**

Relay modules, IP20

Locations	Order no.	Price
6 automotive relays, 10 automotive fuses	**CR0421**	**$75.70**

Dialogue modules, IP65/67

Display size	Inputs / outputs	Operating elements	Interfaces	Order no.	Price
2.8" colour display	–	5 freely programmable backlit function keys, cursor key	1 x CAN	**CR0451**	**$763.40**
4.3" colour display	–	6 freely programmable backlit function keys, cursor key	1 x CAN	**CR0452**	**$1,092.00**

CONTROLLER STARTER SET FOR MOBILE MACHINES

Description	Order No.	Price
ecomatController/Starterkit	**EC2121**	**$1,717.10**

FIELD CAN BUS MODULES, IP67

I/O Total	CompactModule, IP 67				Order no.	Price
16	-	16x Digital, 16x PWM, 8x PWM-I	DEUTSCH Connector	2 x CAN	**CR2051**	**$874.20**
16	8x Digital, 4x Analogue	8x Digital, 8x PWM, 8x PWM-I		2 x CAN	**CR2052**	**$853.20**
8	–	16x Digital, 16x PWM, 8x PWM-I	M12	2 x CAN	**CR2041**	**$820.70**
16	16x Digital, 4x Analogue	8x Digital, 8x PWM, 8x PWM-I	M12	2 x CAN	**CR2042**	**$800.70**
16	16x Digital, 8x Analogue	-	M12	2 x CAN	**CR2040**	**$680.80**

MULTI-FUNCTION INPUT MODULE

Description	Order no.	Price
Multi-functional input module, LED, multi-colour. CAN protocol J1939	**CR1300**	**$457.50**
Multi-functional input module, 4 part segment ring, LED, multi-colour. CAN protocol J1939	**CR1301**	**$507.20**

Systems For Mobile Machines

POWERFUL, VERSATILE CABINET PROGRAMMABLE LOGIC CONTROLLER

Description	Order no.	Price
IIoT Controller IP20 1S		
Communication interface Ethernet; USB, Number of Ethernet interfaces 4, Number of USB interfaces 2	**AE3100**	**$1,414.30**

BASIC CAN BUS CONTROLLERS, IP67

I/O total	Input functions	Output functions	Interfaces	Order no.	Price
SmartController, IP 67					
32	16 x digital, 4 x analogue (U/I) 4 x frequency, 2 x resistance	16 x digital, 2 x PWM-I 12 x PWM, 2 x analogue 0.2...10 V	2 x CAN	**CR2530**	**$1,143.60**
64	32 x digital, 8 x analogue (U/I) 8 x frequency, 4 x resistance	32 x digital, 4 x PWM-I 24 x PWM, 4 x analogue 0.2...10 V	3 x CAN	**CR2532**	**$2,008.80**

Accessories

Type	Description	Order no.	Price
	Wirable AMP connector	**EC2013**	**$78.80**

RADAR DISTANCE SENSOR FOR HARSH ENVIRONMENTS <30M RANGE

Type	Aperture Angle horizontal x vertical [°]	Frequency [GHz]	Outputs (2x configurable)	Order no	Price
Distance sensor, wide adjustable angle, CAN J1939	H40 x V20	77…81	CAN (SAE J1939)	**R2D201**	**$1,829.00**
Distance sensor, wide adjustable angle, CAN J1939	H140 x V50	60…64	CAN (SAE J1939)	**R2D101**	**$1,829.00**

Accessories

Description	Order no.	Price
Mounting bracket for radar sensors with setting option up to 45°	**E23009**	**$88.20**
Mounting bracket for radar sensors with setting option up to 20°	**E23010**	**$83.90**
Mounting bracket for radar sensors	**E23011**	**$68.90**

Sensors For Mobile Machines

MOBILE MACHINES - CAMERAS FOR COLLISION AVOIDANCE

Automatic collision avoidance: 3D camera at the rear automatically warns of obstacles and possible collisions.

CAN BUS DEVICES

Type of sensor	Image resolution	Angle of aperture [°]	Order no.	Price
O3M 3D smart sensor, CAN interface				
Mobile	64 x 16	70 x 23	O 3 M 2 5 1	$4,567.50
O3M illumination unit - for the operation of O3M250 / O3M251				
infrared light 850 nm	–	70 x 23	O 3 M 9 5 0	$1,639.00

Absolute multiturn encoder	Order no.	Price
Resolution = 4096 steps; 4096 revolutions; 24 bit, Communication interface = CAN, Solid shaft = 10mm dia.	R M 9 0 0 0	$665.70

CAN BUS SAFETY ENCODERS

Housing Ø [mm]	Shaft Ø [mm]	Design shaft	Flange	Order no.	Price
Absolute safety encoders					
58	10	Solid shaft	Direct dia. 58mm	RM900S	$1,656.90
58	12	Hollow shaft	Direct dia. 63mm	RM901S	$1,693.50
58	10	Solid shaft	Direct dia. 58mm	RM902S	$1,786.00
58	12	Hollow shaft	Direct dia. 63mm	RM903S	$1,822.60

RFID system sensors 13.56 MHz

Design	Range referred to Ø 30 mm ID Tag	Order no.	Price
DTM evaluation unit / antenna, CAN interface			
M18, nf	40	DTM425	$500.50
40x40 x54mm	≤ 60, nf	DTC510	$569.60

Description	Order no.	Price
ID TAGs (selection) for 13.56 MHz system		
Ø 30 x 2.8mm / 5.2mm mounting hole size - 896 bits	E80371	$23.70

Sensors For Mobile Machines

MOBILE MACHINES SENSORS

Description	Order no.	Price
2 axis		
2x Axis. Angular range ± 180°. Output 1, IO-Link NO/NC prog. Output 2 - NO/NC prog. PNP/NPN. Analogue 4...20 mA. Output 3 and 4 analogue, 4...20M & 2...10V	**JN2200**	**$736.30**
2x Axis. Angular range ± 45° / 90°, IO-Link. Ouput 1 - IO-Link NO/NC prog. Output 2 - NO/NC prog. PNP/NPN. Analogue 4...20 mA & 2...10V	**JN2201**	**$818.10**
1 or 2 axis		
Inclination sensor; 27 x 59 x 118.5 mm; CAN; Ambient temperature -40...85 °C; M12 Connector; [inclination measurement]: ± 90 °	**JD2120**	**$1,369.60**
Inclination sensor; 27 x 59 x 105.3 mm; CAN; Ambient temperature -40...85 °C; M12 Connector; [inclination measurement]: 0...360 °	**JD1111**	**$1,325.50**

Inductive sensors - temperature range -40...85° C

Design / length [mm]	Sensing range [mm]	Connec-tion	Output	Order no.	Price
M12 / 70	7 nf	M12	3 / 2-wire; DC PNP/NPN; NO	**IFM204**	**$118.80**
M12 / 70	4 f	M12	3-wire; DC PNP; NO	**IFM205**	**$135.10**
M18 / 70	8 f	M12	3 / 2 -wire; DC PNP/NPN; NO	**IGM200**	**$118.80**
M18 / 70	12 nf	M12	3 / 2 -wire; DC PNP/NPN; NO	**IGM201**	**$118.80**
M18 / 70	12 nf	M12	3-wire; DC PNP; NO	**IGM205**	**$135.10**
M30 / 70	12 f	M12	3 / 2 -wire; DC PNP/NPN; NO	**IIM200**	**$157.10**
M30 / 70	22 nf	M12	3 / 2 -wire; DC PNP/NPN; NO	**IIM201**	**$157.10**

Magnetic sensors - pressure resistance 500 bar

Design / length [mm]	Sensing range [mm]	Connection	Output	Order no.	Price
M12 / 93	1.8 f	M12	PNP; normally open	**MFH200**	**$252.80**

Pressure sensors

Pressure range [bar]	Process connection	Electrical connection	Temperature [C°]	Output	Order no.	Price
0...10	G 1/4	M12 connector	-40...125	4...20 mA	**PT5504**	**$285.10**
0...250	G 1/4	DEUTSCH connector	-40...125	4...20 mA	**PT5701**	**$285.10**
0...250	G 1/4	AMP connector	-40...125	4...20 mA	**PT5601**	**$285.10**
0...250	G 1/4	DEUTSCH connector	-40...125	0.5...4.5 V	**PU8701**	**$285.10**

Temperature sensors

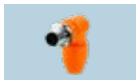
Measuring range [C°]	Process connection	Electrical connection	Installation depth [mm]	Output	Order no.	Price
-50...150	G 1/4	M12 connector	25	4...20 mA	**TA3105**	**$365.10**
-50...150	G 1/4	M12 connector	50	4...20 mA	**TA3115**	**$369.20**
-50...150	G 1/4	M12 connector	25	0.5...4.5 V	**TU3105**	**$365.10**
-50...150	G 1/4	DEUTSCH connector	25	0.5...4.5 V	**TU4105**	**$379.30**

Connection Technology

MOBILE MACHINE M12 CONNECTOR CABLES - TEMPERATURE RANGE -40...85° C

Type	Description	Order no.	Price
M12 sockets 4-pole (0.34mm² sensor) - IP69k, 4A max			
	2 m black, PUR cable	EVM001	$42.60
	5 m black, PUR cable	EVM002	$49.90
	10 m black, PUR cable	EVM003	$59.20
	15 m black, PUR cable	EVM018	$68.60
	25 m black, PUR cable	EVM014	$92.70
	60 m black, PUR cable	EVM065	$177.70
	2 m black, PUR cable	EVM004	$42.60
	5 m black, PUR cable	EVM005	$49.90
	10 m black, PUR cable	EVM006	$59.20
	15 m black, PUR cable	EVM019	$68.60
	25 m black, PUR cable	EVM012	$92.70
	50 m black, PUR cable	EVM010	$149.30
M12 sockets 5-pole (0.34mm² sensor) - IP69k, 4A max			
	2 m black, PUR cable	EVM036	$44.80
	5 m black, PUR cable	EVM037	$55.10
	10 m black, PUR cable	EVM038	$73.20
	2 m black, PUR cable	EVM039	$44.80
	5 m black, PUR cable	EVM040	$55.10
	10 m black, PUR cable	EVM041	$73.20

A-CODED, M12 WIRABLE PLUGS AND SOCKETS, 4 & 5-POLE, IP69K

Type	Description	Order no.	Price
M12 Wirable Plugs and Sockets, 4-pole & 5-pole, IP69k, 4A max			
	Wirable socket, straight, 4-pole	EVC810	$35.30
	Wirable socket, straight, 5-pole	EVC814	$37.90
	Wirable socket, angled, 4-pole	EVC811	$35.30
	Wirable socket, angled, 5-pole	EVC815	$37.90
	Wirable plug, straight, 4-pole	EVC812	$35.30
	Wirable plug, straight, 5-pole	EVC816	$37.90
	Wirable plug, angled, 4-pole	EVC813	$35.30
	Wirable plug, angled, 5-pole	EVC817	$37.90

CR20xx FIELD MODULE WIRABLE CONNECTOR

Description	Order no.	Price
Wirable connector		
Wirable AMP socket for CR20xx field bus module	E12582	$26.30

Connection Technology

M12 CAN BUS CABLES FOR MOBILE MACHINES

- **Large cable cross-section for voltage drop reduction**
- **Permanent vibration protection due to saw tooth contour**
- **Optimum sealing even when fastened by hand**
- **The mechanical end stop protects the O-ring against destruction**

Technical data:

Operating voltage: 30 V AC / 36 V DC
Current rating: 4 A
Protection rating: IP 65, IP 67, IP 68, IP 69K
in locked condition with the matching counterpart.
Tightening torque: 0.6 Nm – 1.5 Nm
Vibration / shock: 750 g, 1 million cycles

Cable:

Drain wire (screen): 0.75 mm2
Voltage supply: 2 x 0.75 mm2
CAN: 2 x 0.5 mm2
Drag chain: > 5 million cycles

Approvals:

cULus

Applications:

EVC factory automation and mobile machines

For product selection chart refer to page 42

Type	Description	Order no	Price
Connection cable M12 connector			
	2.0 m	EVC943	$77.00
	5.0 m	EVC944	$156.20
	2.0 m	EVC945	$77.00
	5.0 m	EVC946	$156.20
Connection cable M12 socket			
	2.0 m	EVC939	$80.50
	5.0 m	EVC940	$159.70
	2.0 m	EVC941	$80.50
	5.0 m	EVC942	$159.70

CAN BUS PROGRAMMING CABLES

Type	Description	Order no.	Price
	CAN devices to the USB interface of a PC, R360/CAN-Interface/CANFox	EC2112	$494.70
	Programming cable set for CAN interface, R360/CABLE/ CANfox-Basic	EC2114	$246.60

AS-i Bus system components

Scan to learn more

AS-I MASTERS

Description	Order no	Price
AS-i controller / gateways (colour display for clear diagnosis & set-up)		
AS-i Profibus gateway, 2 AS-i masters with M4 profile	AC1412	$2,755.90
ifm SPS Profisafe over Profinet gateway / safety master	AC402S	$3,629.30
EtherNet/IP devise interface, 2x AS-i masters with M4 Profile	AC1424	$3,122.60
AS-i EtherNet/IP gateway; Number of AS-i masters 1; terminals	AC1421	$2,370.60
AS-i EtherNet/IP gateway; Number of AS-i masters 2; terminals	AC1422	$2,931.10
AS-i EtherNet/IP gateway with safe preprocessing	AC422S	$3,629.30

AS-I IO-LINK MASTER

Type	Description	Order no.	Price
AS-i IO-Link master			
	4-port (AS-i and AUX)	AC2950	$196.00
	2-port (AS-i)	AC2951	$243.80

AS-i SYSTEM POWER SUPPLIES

Current / peak at 24 V	Input voltage [V AC]	Order no.	Price
2.8 A	100...120 / 200...240	AC1256	$600.80
4 A	100...120 / 200...240	AC1254	$746.90
4 A	24v DC	AC1257	$855.30
8 A	380...480	AC1253	$1,245.00
8 A	115 / 230	AC1258	$1,053.50
2 x 4 A	115 / 230	AC1212	$1,341.20

PASSIVE POWER SUPPLIES

Type	Description	Order no.	Price
	ProcessLine 4SB IP69K	AC2950	$196.00
	ProcessLine 8SB IP69K	AC2951	$243.80

AS-i I/O FIELD MODULES - IP69K

Type	Description	Order no	Price
Modules			
	IP 69K, 4 in / 3 out. Active ProcessLine module, V 2.1, SS316L, Sockets M12	AC2904	$817.40
	IP 69K, 8-way splitter box. Passive ProcessLine module, SS316L, Sockets M12	AC2900	$403.40
	Active ProcessLine module; ProcessLine 8DI IP69K; Connector; IP 69K	AC2910	$793.10
	FC splitter · M12 socket · SS316L / 1.4404 / Blanks: FPM / O-ring: EPDM	E70354	$93.60
	FC splitter · SS316L / 1.4404 / Blanks: FPM / O-ring: EPDM	E70377	$84.10

AS-i Bus system components

SMARTLINE MODULES

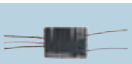
Type	Description	Order no.	Price
	SmartL25 4DI 2DO R C	AC2256	$264.90
	SmartL25 4DI 4DO T C	AC2257	$299.10
	Active AS-i module, 4 inputs	AC2250	$224.20
	Active AS-i module, 4 inputs / 4 outputs	AC2251	$309.60
	SmartL25 4DI 4DO T C	AC3200	$326.20
	SmartL25 4DI AUX 4DO T C	AC3201	$326.20
	SmartL25 4DI 4DO R C	AC3220	$359.60
	SmartL25 4DI AUX 4DO R C	AC3221	$359.60
	SmartL25 AS-i Repeater III	AC3226	$616.50
	SmartL25 4DI 4DO T C	AC3251	$307.50
	SmartL25 4DI 2DO R C	AC3256	$271.50
	SmartL25 4DI AUX 4DO T C	AC3257	$270.50

COMPACT MODULES - IP67

Type	Description	Order no.	Price
	CompactModule 4DI M12	AC2410	$323.20
	CompactModule 2DI 2DO T M12	AC2411	$416.80
	CompactModule 4DI 4DO T M12	AC2412	$535.60
	CompactModule 4DI M12 V4A	AC2451	$366.20
	CompactModule 4DI 4DOT M12 V4A	AC2452	$610.20
	CompactLM12 4DI M12 IR IP67	AC2457	$303.00
	CompactLM12 4DI 4DO T M12 IR	AC2459	$499.00
	CompactLineM12 4DI4DO T M12	AC2466	$573.60
	CompactLineM8 4DI 4DO T	AC2490	$434.20

Type	Description	Order no	Price
	AS-Interface flat cable seal	AC3003	$43.20

ELECTRONIC MODULES

Type	Description	Order no	Price
	AS-Interface PCB module AS-i pcb 2-DI/1-DO	AC2729	$227.70
	AS-Interface PCB module PCB 4DI 4DO T W A/B	AC2750	$282.70
	AS-Interface PCB module PCB 4DI 4DO T C A/B	AC2752	$282.70

AS-i Bus system components

AS-I SAFETY

Scan to learn more

Type	Description	Order no	Price
AS-i controller and gateways (colour display for clear diagnosis & set-up)			
	AS-i PROFINET gateway with safe preprocessing	AC402S	$3,629.30
	AS-i Ethernet/IP gateway with safe preprocessing	AC422S	$3,629.30
	AS-i EtherCAT gateway with safe preprocessing	AC432S	$3,842.10

Type	Safety Outputs	Non-safe Outputs	Order no.	Price
	SmartLine SafetyModule		AC009S	$473.40
	SmartLine Module 2SO IP20		AC030S	$867.60
	ClassicL 2SI 2DOT 2LO OSSD		AC507S	$422.80
	ClassicLine 4DI-Y II 3D		AC515A	$355.20
	AS-i Safety Platine		AC015S	$245.50
	E-stop illuminated IP67		AC010S	$498.10

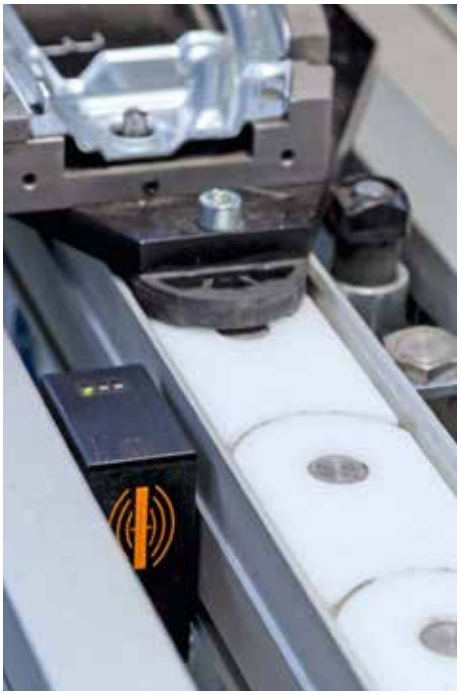
Accessories

Type	Description	Order no.	Price
	AS-i addressing unit	AC1154	$854.40
	AS-i Tuner IP67, diagnostic module; Connector	AC1146	$1,302.90
	AS-Interface passive bus termination	AC1147	$223.30
	AS-Interface flat cable insulation displacement connector	E75005	$20.00
	Flat cable 100 m EPDM (yellow), 2 x 1.5mm²	E74000	$506.30
	Flat cable EPDM (yellow) 2x 1.5mm, cut/meter	ZE1732	ZE1732
	Flat cable 50 m EPDM (yellow), 2 x 1.5mm²	E74002	$290.10
	Flat cable 500 m EPDM (yellow), 2 x 1.5mm²	E74003	$2,384.30
	Flat cable EPDM 100 m (yellow), 2 x 1.5mm²	E74005	$563.30
	Flat cable 100 m EPDM (black), 2 x 1.5mm²	E74010	$566.10
	Flat cable EPDM (black) 2x 1.5mm, cut/meter	ZE1733	ZE1733
	Flat cable 500 m EPDM (black), 2 x 1.5mm²	E74013	$2,682.30
	Flat cable 100 m TPE (yellow), 2 x 1.5mm²	E74200	$641.40
	Flat cable 100 m TPE (black), 2 x 1.5mm²	E74210	$743.20
	Flat cable 100 m TPE (red), 2 x 1.5mm²	E74220	$1,153.30
	Flat cable 200 m EPDM (yellow), 2 x 2.5mm²	E74406	$1,472.20
	Flat cable 200 m EPDM (black), 2 x 2.5mm²	E74416	$1,472.20
	FC Splitter AS-i UL	E70581	$42.20
	FC Splitter AS-i M12 FC top UL	E70585	$28.40
	FC Splitter AS-i / AUX M12 UL	E70587	$70.10
	QUAD M12 AS-i/24V 4A	E70588	$99.60
	FC Splitter AS-i 2 m UL	E70598	$45.20

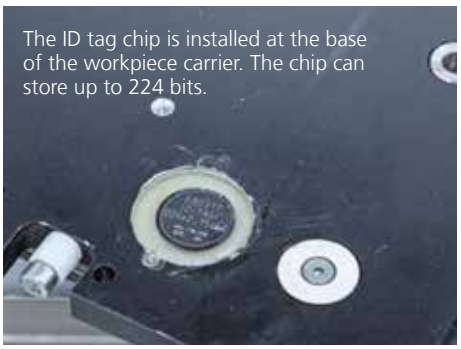
RFID antennas with IO-Link

Wide selection available

Scan to learn more



Type	Description	Part No	Price
IO-Link RFID Antennas			
	Read/write head; 13,56 MHz; IO-Link; 40 x 40 x 54 mm; Ambient temperature -20...60 °C; IP 67; IP 69K	DTI513	$481.60
	Read/write head; 13,56 MHz; IO-Link; 20 x 7 x 48 mm; Ambient temperature -20...60 °C; IP 67; IP 69K	DTI515	$419.20
RFID Antennas			
	RFID antenna 13.56 MHz, M30 design, flush	ANT430	$513.80
	RFID antenna 13.56 MHz, M30 design, non-flush	ANT431	$513.80
	RFID antenna 125 KHz	ANT512	$516.00
	RFID antenna 13.56 MHz, ISO 15693	ANT513	$544.40
RFID Evaluation Units			
	RFID evaluation unit, EtherNet/IP interface	DTE102	$1,438.00
	RFID evaluation unit, EtherCAT interface	DTE103	$1,362.30
Accessories			
	ID tag; 13,56 MHz; Ø 30 / L = 2.8 mm; Ambient temperature -25...85 °C; IP 68	E80370	$54.70
	ID tag; 13,56 MHz; Ø 30 / L = 3 mm; Ambient temperature -40...85 °C; IP 68; IP 69K	E80371	$23.70
	ID tag; 13,56 MHz; Ø 50 / L = 3 mm; Ambient temperature -25...85 °C; IP 68; IP 69K	E80383	$59.20



The ID tag chip is installed at the base of the workpiece carrier. The chip can store up to 224 bits.

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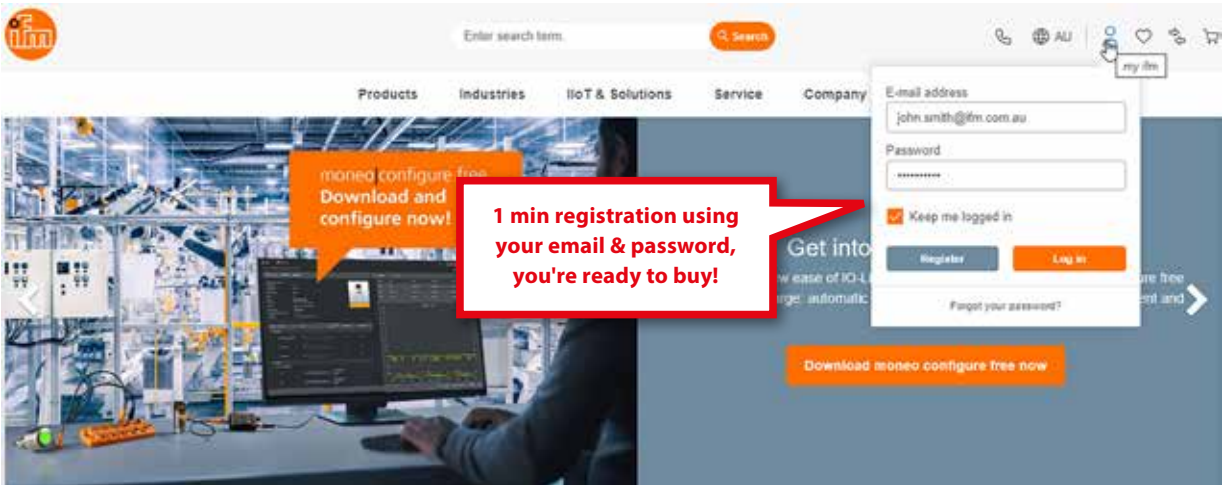
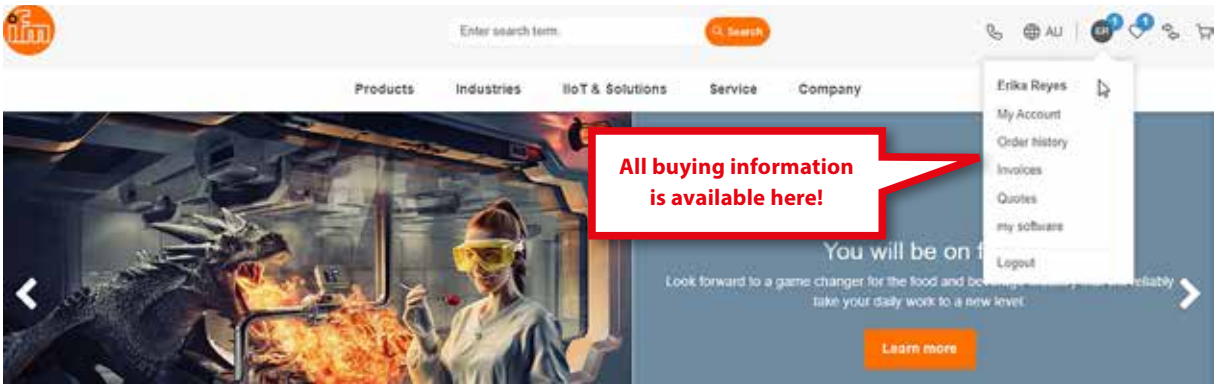
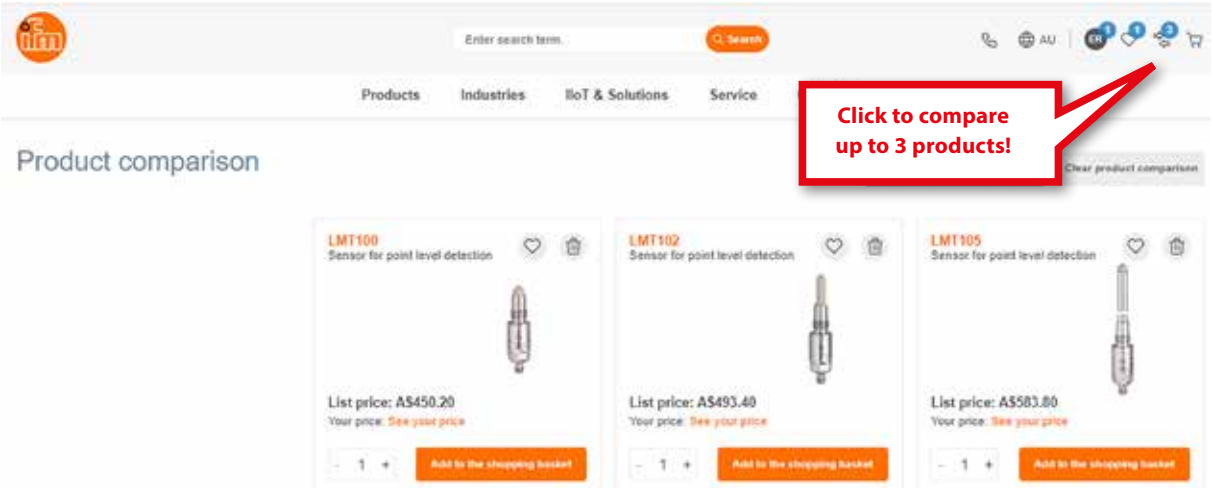
USER INSIGHTS



IFM ESHOP - VIEW YOUR ACCOUNT



IFM ESHOP - PRODUCT COMPARATOR FUNCTION



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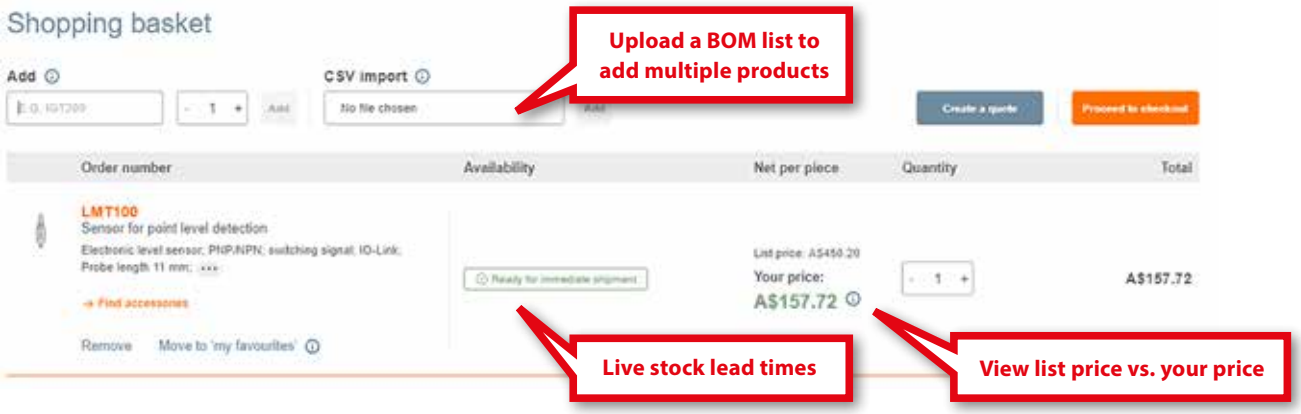
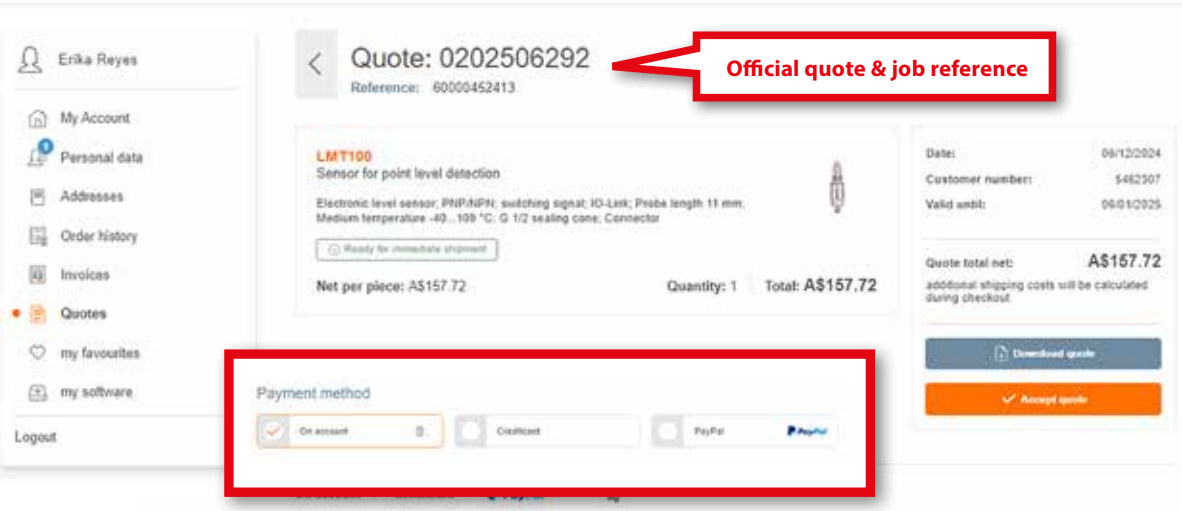
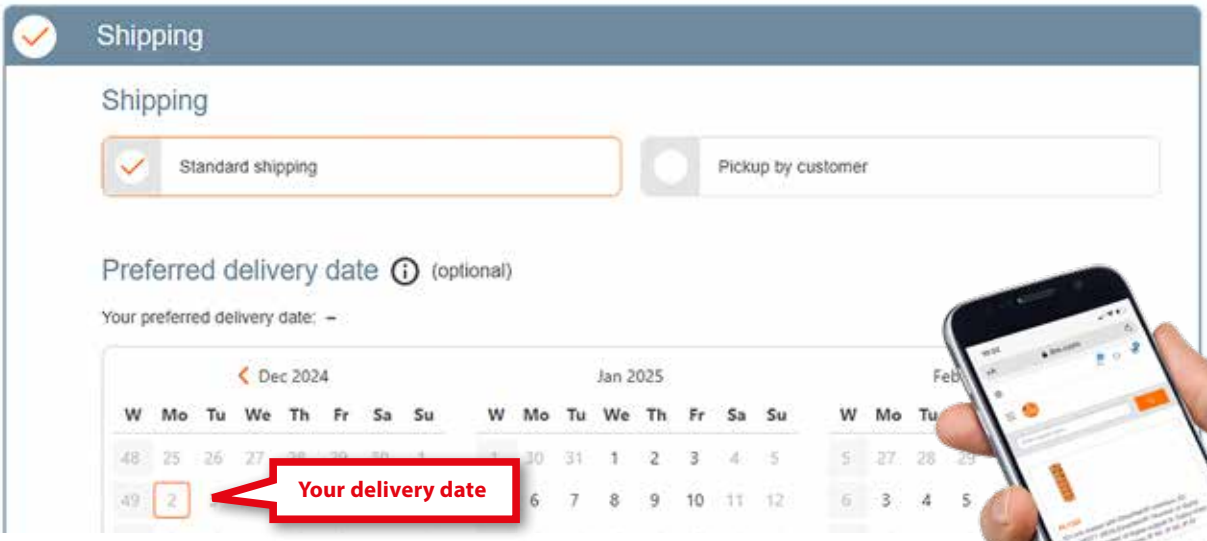
IFM ESHOP - SHOPPING BASKET



IFM ESHOP - QUOTE GENERATION (IF REQUIRED)



SHIPPING CONFIRMATION



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QUEENSLAND
Gold Coast
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