



2023

Australian Stock Selector & Prices

Robotics & Automation



Food & Beverage



Water



Logistics Automation



Packaging



Air/Sea Port Automation



Mining



Conveying



Facilities/Refrigeration



Automated Machines



Power Generation



Timber, Pulp & Paper



Mobile Industries



Agriculture/Aquaculture



Metal Fabrication



Predictive Maintenance



Service Centre:
sales.au@ifm.com
ph. 1300 365 088

Purchasing @ ifm's webshop is fast,
convenient with "standard" bags
delivered at 50% off freight costs

www.ifm.com/au

Shop for ifm products 24/7



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



ifm products can be purchased online at ifm webshop. Customers placing orders via ifm webshop enjoy HALF PRICED handling charges on standard deliveries. ifm webshop works in the same way as placing an order via phone or email - you order with an order number (or credit card if preferred) and after placing your webshop order, you will receive an email with delivery ETA's.

All available items will be sent out, unless otherwise stated.

Overview:

ifm's wide product range is clearly structured via individual Product Groups.

Product Selector:

Allows you to select important technical data. Narrowing options for the optimum product selection.

Compare:

The "comparator" function, allows you to compare 3 products simultaneously, with differences highlighted!

Search engine:

The "full-text" search function, selects all products & topics related to your area of interest.

Purchase 24/7:

Log-in and purchase on-line
24/7 @ www.ifm.com/au

Save time & reduce courier costs!



ifm electronic ltd:



The company now employs a dedicated team of 50 local employees, committed to help you and your business succeed. Located throughout the country in Melbourne, Sydney, Brisbane, Adelaide, Hobart & Perth, servicing 6,000 local businesses, and delivering 76% of all PO's overnight via couriers - nationwide!

ifm electronic - global:



ifm electronic gmbh is a family owned private business, first 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 7,300 dedicated staff, located in 85 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!



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

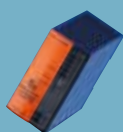
Industry 4.0 - why and how explained IO-Link masters & accessories

Pages: 4

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

IO-Link application reports

Pages: 127



Power supplies

Circuit Breakers

Pages: 14

Programmable circuit breakers using IO-Link technology.

Power supplies

Pages: 15

Power supplies provide the voltage for sensors, actuators, and other electronic loads.



ifm Software solutions

Moneo Software

Pages: 16

IIOT platform for industry



Wiring technology

M12 cordsets

Pages: 22

4 - 5 - 8-pin DC cordsets and field wirable connectors.

M8 cordsets

Pages: 33

3 - 4-pin DC cordsets. Quick disconnect M8 cordsets and field wirable connectors for electrical wiring.

M12 splitter block systems

Pages: 35

Four port and eight port M12 wiring blocks and patch cords.

M12 control cables

Pages: 36

Ethernet & CAN bus connection cables



Position sensors

Magnetic sensors

Pages: 37

Non-contact magnetic sensors detect metallic targets.

Inductive sensors

Pages: 38

Non-contact inductive sensors detect metallic targets.

Valve sensors

Pages: 44

Continuous position feedback and open closed feedback options.



Motion control

Speed monitors

Pages: 46

Self-contained speed monitors detect rotational speed conditions.

Rotational and standstill monitor

Pages: 46

The speed monitors calculate rotational speed by evaluating pulses.

Encoders

Pages: 47

Incremental and absolute encoders use magnetic technology to provide accurate position feedback of a rotating shaft.

Capacitive sensors

Pages: 48

Capacitive sensors detect non-metallic targets, e.g. plastic, glass and wood.

Push buttons



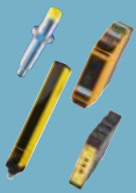




Pages: 49

Capacitive touch sensors.

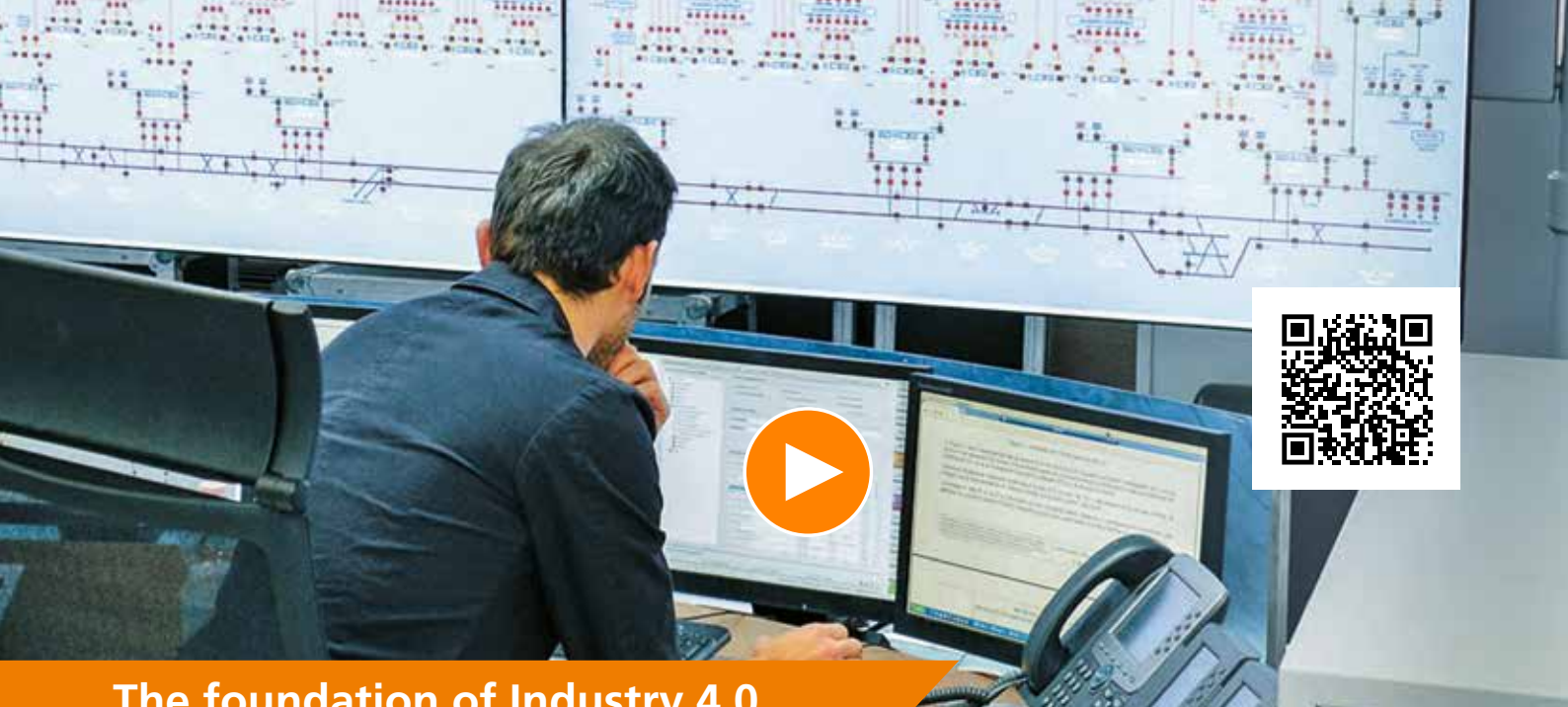
Cylinder sensors

Pages: 50

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

 <p>Position sensors</p>	<p>Photoelectrics & lasers Pages: 52</p> <p>Visible red and laser provide long-range detection.</p>	<p>Distance, colour and contrast Pages: 58</p> <p>Photoelectric solutions for long ranges, color and contrast applications</p>	<p>Light Grids Pages: 62</p> <p>Fast object monitoring in intralogistics</p>	<p>Ultrasonic Pages: 64</p> <p>Ultrasonic object detection for transparent objects.</p>
 <p>Vision sensors</p>	<p>Contour profiler Pages: 65</p> <p>PMD profiler for precise detection and QA checks.</p>	<p>3D image sensor Pages: 66</p> <p>Volumetric control, missing goods applications.</p>	<p>2D contour sensor Pages: 68</p> <p>For automated packaging 2D profiles.</p>	<p>Code reader & pixel counter Pages: 70</p> <p>For automated packaging codes.</p>
 <p>Safety products</p>	<p>Light curtains Pages: 72</p> <p>Light curtains offer a hands-free solution to protect personnel.</p>	<p>Safety sensors Pages: 74</p> <p>Non-contact, fail-safe safety sensors detect metal targets.</p>	<p>Safety relays Pages: 75</p> <p>Multi-function safety relays connect safety devices.</p>	
 <p>Process displays</p>	<p>Light towers Pages: 76</p> <p>Single or multiple segments.</p>	<p>Process displays & Signal evaluation Pages: 78</p>		
 <p>Process sensors</p>	<p>Pressure sensors Pages: 80</p> <p>Sensors to monitor pressure in hydraulics and pneumatic systems. Also Hydrostatic level applications</p>	<p>Level sensors Pages: 88</p> <p>Point and continuous level sensors detect level of liquids, powders, granular solids and plastics.</p>	<p>Liquid flow sensors Pages: 96</p> <p>Flow sensors, mag-meters, and ultrasonic flow meters detect the flow rate of liquids.</p>	<p>Gas flow sensors Pages: 102</p> <p>Flow sensors for compressed air and industrial gases.</p>
 <p>Machine condition</p>	<p>Vibration sensors & Condition Monitoring Pages: 110</p> <p>Continuously monitor machine's vibration level to prevent equipment failure.</p>			
 <p>Industrial networks & Identification systems</p>	<p>AS-i networking Pages: 116</p> <p>Networks sensors and actuators with plug-and-play functionality.</p>	<p>RFID Pages: 119</p> <p>A high frequency or UHF platform. The antennas are able to read/write multiple tags up to 10 meters.</p>	<p>CAN BUS controllers & sensors for mobile machines Pages: 120</p>	<p>Mobile machine connectors Pages: 125</p>

Appendix (A-Z) of all parts in this book page 129



The foundation of Industry 4.0

Today's sensors have evolved from standard switches with simple on/off capabilities to highly intelligent devices with built-in microprocessors that process large amounts of data. This data has been trapped with no pathway to the control system ... until now.

Introducing IO-Link

IO-Link is a communication interface that unlocks trapped data in the existing sensor's electronics and transmits the data via a pure digital signal to the controller. By simply replacing the Ethernet I/O block with a version that has IO-Link capabilities and using IO-Link enabled sensors, the intelligence in industrial sensors is freely available.

The foundation of Industry 4.0 is utilizing real-time data from the plant floor. IO-Link is a bi-directional, digital, point-to-point, industrial communications networking standard (IEC 61131-9), used for connecting digital sensors and actuators to an industrial fieldbus or industrial Ethernet. By having full access to sensor data and transmitting the data to the controller via IO-Link, plant operators can analyze the data to make adjustments to machines with greater accuracy, eliminate downtime and maximize overall equipment effectiveness.

IO-Link is a worldwide open-standard protocol for connecting sensors and devices and does not require any special wiring.

IO-Link provides:

- Simple plug-and-play replacement of sensors; easy real-time recipe changes, and diagnostic feedback on the sensor's operation
- Continuous monitoring of machine vibration in real-time allowing equipment to be serviced as needed instead of at scheduled intervals
- A better understanding of the cost of production by monitoring energy usage
- Mass production of quality parts by determining exact tolerances
- Improved product efficiency by tracing valuable assets throughout the manufacturing process

To get started...

Use an IO-Link master with existing wiring and IO-Link enabled sensors. LineRecorder device software offers easy and fast parameter setting, and more.

IO-Link sensors in this catalog are noted with the symbol



IO-Link Masters - Startup package

Startup package for easy integration of ifm IO-Link masters into your PLC. Download the following contents for free:

- Example programs and program blocks (Step7, TIA, RS Logix)
- Read and write process data
- Connection to PROFINET, Ethernet and EtherCAT
- Device description files for PLC setup (GSDML, ESI, EDS)
- Operating instructions

Simple time-saving instructions to connect ifm IO-Link masters to your control system, by means of a fieldbus interface.



EtherNet/IP™

EtherCAT™

PROFINET

Modbus TCP

<https://www.ifm.com/au/en/shared/product-news/2019/hmi/internet-of-things-starter-kit>

IO-Link System - User benefits

THE TECHNOLOGY JUMP FROM ANALOGUE TO DIGITAL



► 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.



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



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.



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



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



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



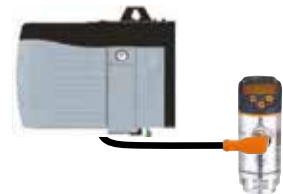
Not a fieldbus dependent system: IO-Link can be added to most existing control architectures with minimal cost.

► Sensor parameterization

Conventional: Change parameters via on-board pushbuttons.



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

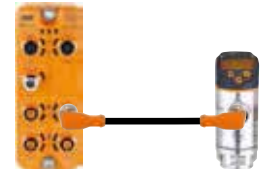


► Automatic device replacement

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

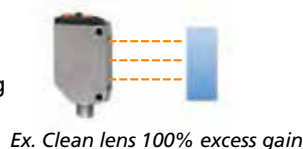


IO-Link: Data is automatically uploaded to a sensor. No need for manual parameterization.

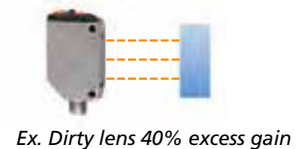


► Diagnostic information for predictive maintenance

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



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



MONEO CONFIGURE SA



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 - 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.

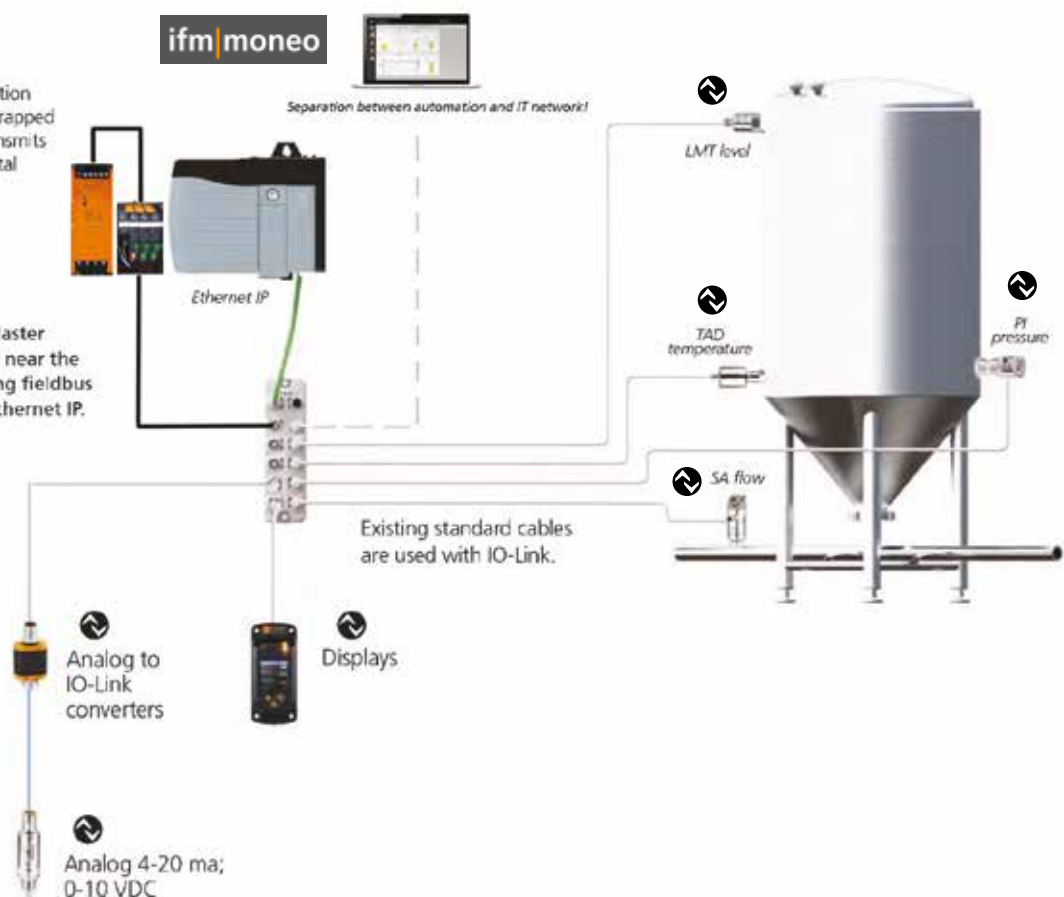


IO-Link CONTROLS ARCHITECTURE - PROCESS TANK MONITORING



IO-Link is a communication interface that unlocks trapped data in sensors and transmits the data via a pure digital signal to the plc.

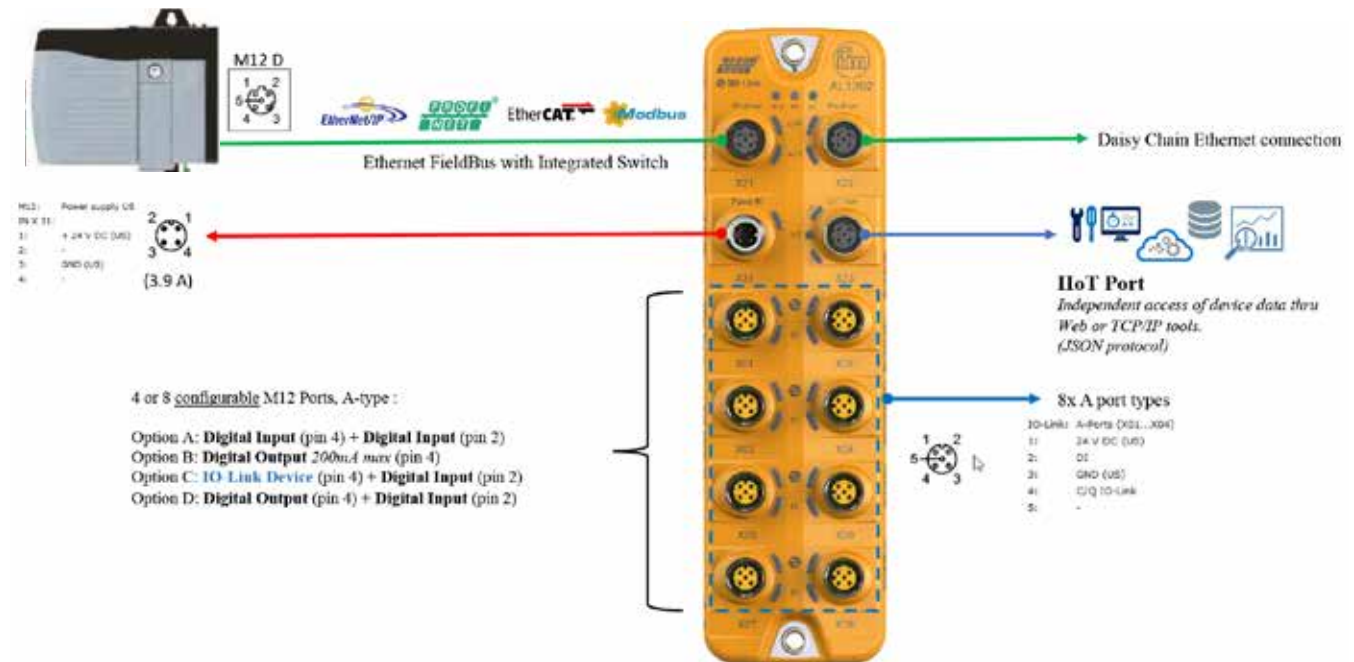
An IO-Link IP69k Master located in the field near the sensors, uses existing fieldbus protocol, such as Ethernet IP.



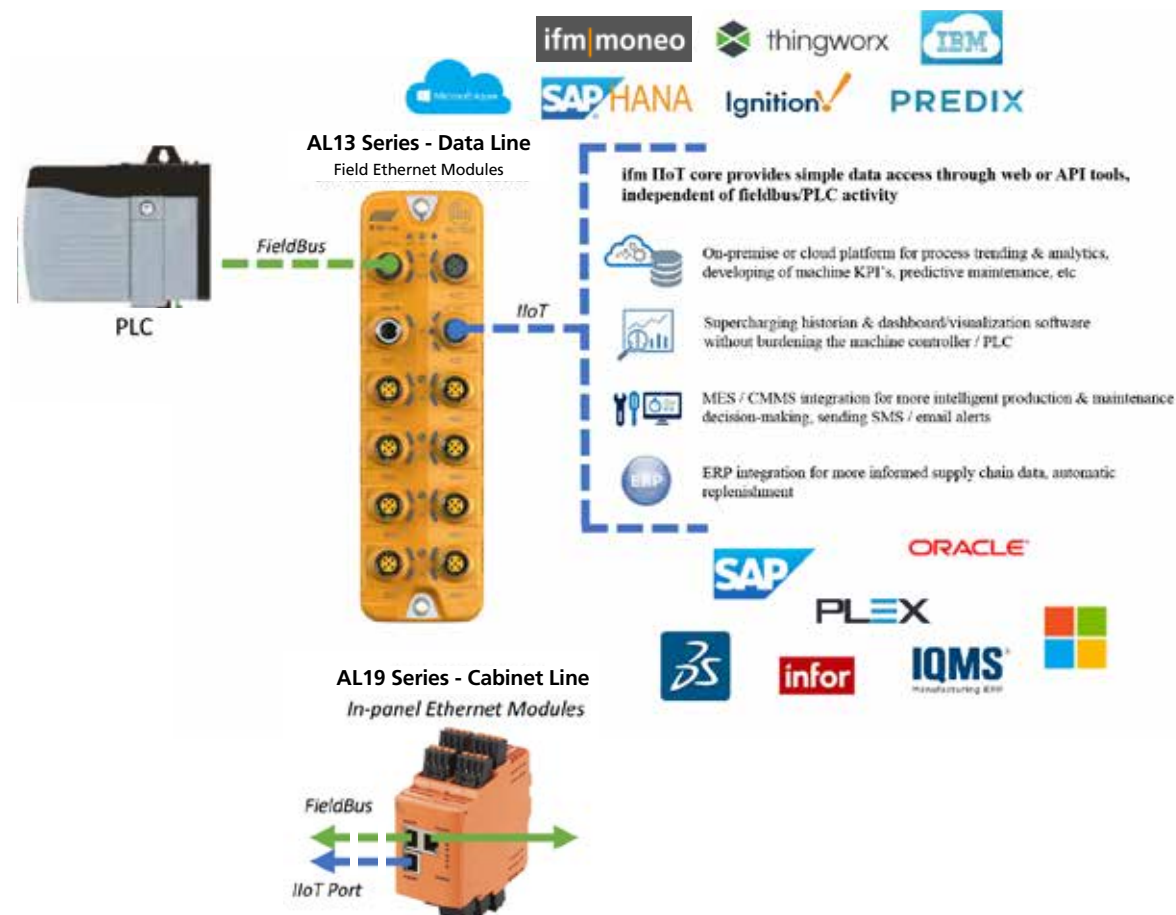


IO-Link System - IIoT or Industry 4.0

ETHERNET I/O MODULES - DATALINE

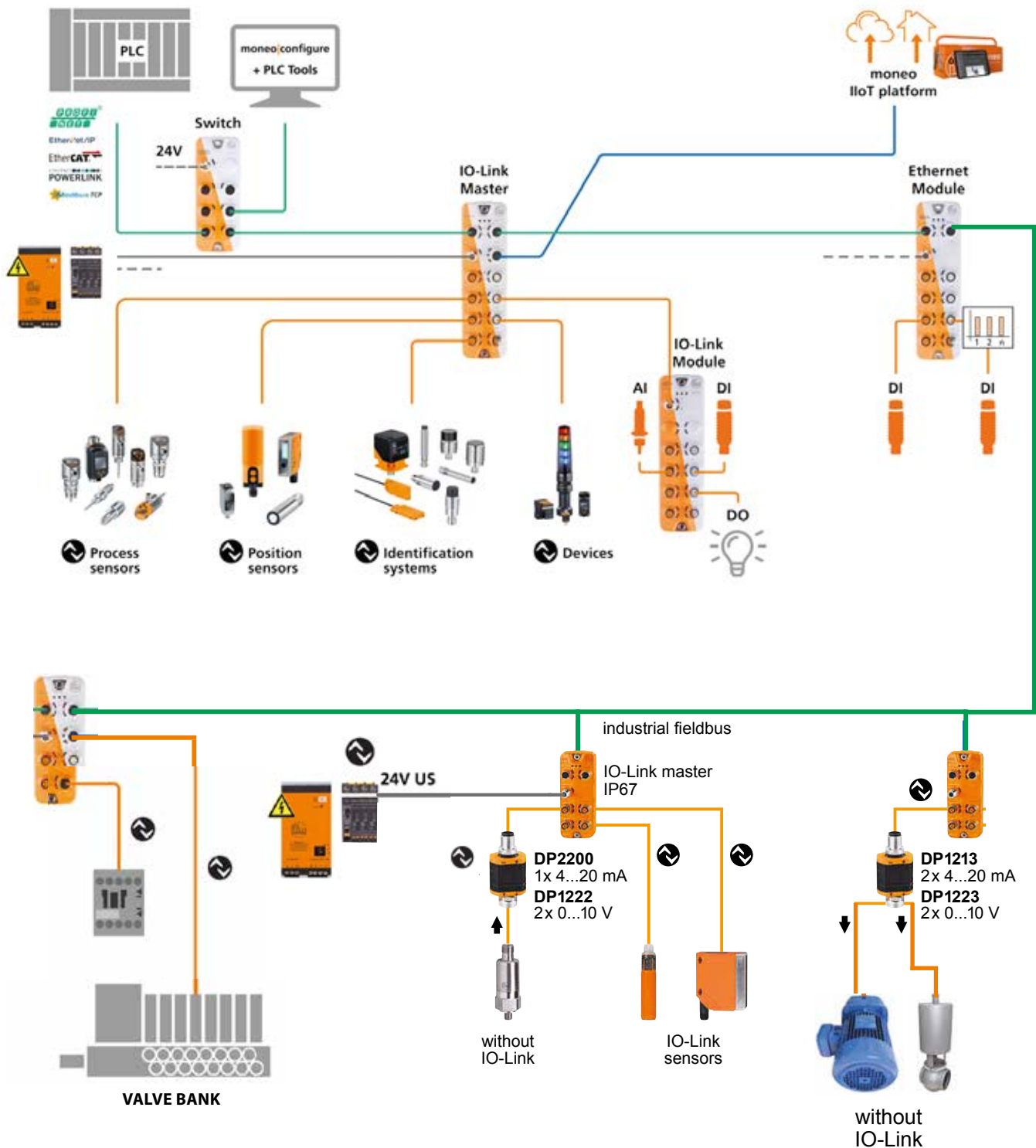


IO-Link IIoT PORT - OFFERS NEW POSSIBILITIES



IO-Link System - Topology with IIoT

ETHERNET I/O MODULES - DATALINE



IO-Link System - with controller & HMI

IFM SYSTEM SOLUTIONS - OVERVIEW FOR INDUSTRIAL IP67 ENVIRONMENTS

Example controls architecture

HMI Controller

16 IO-Link Masters

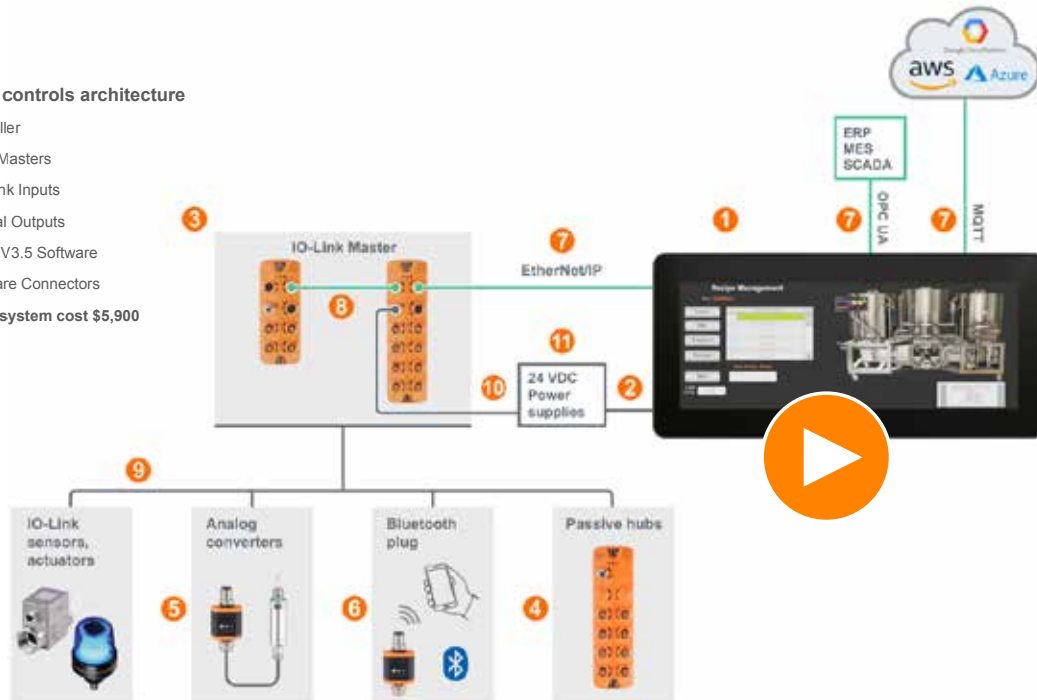
90 IO-Link Inputs

38 Digital Outputs

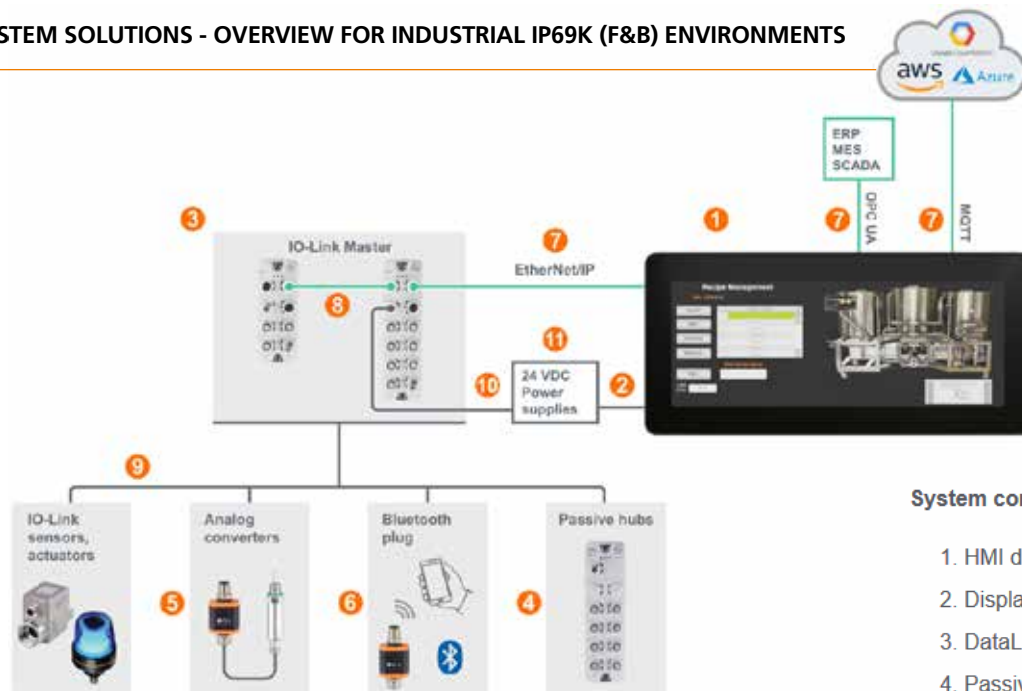
CODESYS V3.5 Software

IIoT Software Connectors

Estimated system cost \$5,900



IFM SYSTEM SOLUTIONS - OVERVIEW FOR INDUSTRIAL IP69K (F&B) ENVIRONMENTS



System components

1. HMI display controllers
2. Display power adapters
3. DataLine IO-Link masters
4. Passive IO-Link hubs
5. Analog signal converters
6. Bluetooth plug
7. M12 / RJ45 Ethernet patchcords
8. M12 / M12 Ethernet patchcords
9. M12 A-coded patchcords
10. M12 power cordsets
11. 24 VDC power supplies

































Type	Description	Order no.	Price	Type	Inputs	Outputs	Order no.	Price
IO-Link Master - CabinetLine				IO-Link Configurable Multi-port modules				
	PROFINET 8 port	AL1900 🌐	\$946.16		DI, 0...10V, 4...20mA*	DO 1...16*	AL2605 🌐	\$802.84
	EtherNet /IP interface 8 port	AL1920 🌐	\$946.16		DI, 0...10V, 4...20mA*	DO 1...16*	AL2303 🌐	\$651.69
	EtherCat interface 8 port	AL1930 🌐	\$946.16		DI 1...16*	DO 1...16*	AL2325 🌐	\$608.23
	Modbus TCP 8 port	AL1940 🌐	\$946.16		DI 1...16*	DO 1...16*	AL2321 🌐	\$595.93
	PowerLink 8 port	AL1970 🌐	\$946.16					
IO-Link Master - Data Line (MQTT, JSON)								
	Profinet 4-port	AL1300 🌐	\$699.18			DO 12: (6x2)	AL2330 🌐	\$399.41
	EtherNet/IP 4-port	AL1320 🌐	\$699.18		DI 8: (4x2)		AL2400 🌐	\$250.80
	EtherCat 4-port	AL1330 🌐	\$699.18		DI 12: (6x2)		AL2340 🌐	\$313.97
	Modbus TCP 4-port	AL1340 🌐	\$699.18		DI 20: (10x2)		AL2341 🌐	\$527.24
	Profinet 8-port	AL1302 🌐	\$816.62					
	EtherNet/IP 8-port	AL1322 🌐	\$816.62					
	EtherCat 8-port	AL1332 🌐	\$816.62					
	Modbus TCP 8-port	AL1342 🌐	\$816.62					
IO-Link Master - Standard Line				IO-Link Master - Performance Line, L-coded (power)				
	Profinet 4-port	AL1100 🌐	\$663.14		Profinet 4-port		AL1400 🌐	\$803.90
	EtherNet/IP 4-port	AL1120 🌐	\$663.14		EtherNet/IP 4-port		AL1420 🌐	\$803.90
	Profinet 8-port	AL1102 🌐	\$772.74		Profinet 8-port		AL1402 🌐	\$982.62
	EtherNet/IP 8-port	AL1122 🌐	\$772.74		EtherNet/IP 8-port		AL1422 🌐	\$982.62
				Ethernet 6 Port Switches (unmanaged)				
				TCP/IP networks; for Profinet networks; for Modbus TCP networks		AL3000 🌐	\$551.62	
				TCP/IP networks; for EtherNet/IP networks; for Modbus TCP networks		AL3050 🌐	\$551.62	

Accessories

Type	Description	Order no.	Price	Type		Order no.	Price
PROFIsafe module							
	PROFIsafe 8 port module	AL2005	\$1,514.10		IO-Link sensor data is sent directly via mobile network to the cloud	AIK050	\$775.92
					M12 316SS Protective caps (4 pieces per bag)	E12542	\$24.80
	CloudRAIL Box - IoT-gateway for IO-Link master	ZJF001	\$1,457.08		Ethernet adapter M12 / RJ45	E21140	\$113.63
					Ethernet RJ45 connector	E12514	\$66.14





Type	Description	Order no.	Price	Type	Inputs	Outputs	Order no.	Price
IO-Link Master - Standard Line, IP69K				IO-Link Configurable Multi-port modules				
	Profinet 4-port	AL1101 	\$756.63		DI, 0...10V, 4...20mA*	DO 1...16*	AL2205 	\$790.55
	Profinet 8-port	AL1103 	\$892.52		DI, 0...10V, 4...20mA*	DO 1...16*	AL2203 	\$733.10
	EtherNet/IP 4-port	AL1121 	\$756.63		DI 1...16*	DO 1...16*	AL2225 	\$693.03
	EtherNet/IP 8-port	AL1123 	\$892.52		DI 1...16*	DO 1...16*	AL2221 	\$680.94
IO-Link Master - Data Line (MQTT, JSON), IP69K					—	DO 12: (6x2)	AL2230 	\$463.43
	Profinet 4-port	AL1301 	\$788.85		DI 12: (6x2)	—	AL2240 	\$376.51
	EtherNet/IP 4-port	AL1321 	\$788.85		DI 20: (10x2)	—	AL2241 	\$615.01
	EtherCat 4-port	AL1331 	\$788.85					
	Modbus TCP 4-port	AL1341 	\$788.85	Ethernet 6 Port Switches (unmanaged)				
	Profinet 8-port	AL1303 	\$931.95		TCP/IP networks; for Profinet networks; for Modbus TCP networks		AL3001 	\$640.24
	EtherNet/IP 8-port	AL1323 	\$931.95		TCP/IP networks; for EtherNet/IP networks; for Modbus TCP networks		AL3051 	
EtherCat 8-port	AL1333 	\$931.95						
Modbus TCP 8-port	AL1343 	\$931.95						
IO-Link Master - Standard Line, IP69K				Passive power distributor				
	AS-i 4-port	AC6001 	\$633.46					







Accessories

Type	Description	Order no.	Price
	M12 316SS Protective caps (4 pieces per bag)	E12542	\$24.80
	Ethernet adapter M12 / RJ45	E21140	\$113.63
	Ethernet RJ45 connector	E12514	\$66.14



IO-Link Ethernet Cable Connectors

INDUSTRIAL ETHERNET D-CODE CABLE (FIELD BUS) 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	\$37.31	EVC930	\$37.31	EVC904	\$36.46	-	-
1.0 m	-	-	-	-	EVC905	\$41.76	-	-
2.0 m	EVC926	\$52.36	EVC932	\$52.36	EVC906	\$51.73	EVC893	\$31.16
5 m	EVC927	\$81.41	EVC933	\$81.41	EVC907	\$81.20	EVC894	\$60.84
10 m	EVC928	\$130.59	EVC934	\$130.59	EVC908	\$130.59	EVC895	\$110.03
20 m	-	-	EVC935	\$228.32	EVC909	\$228.96	EVC896	\$208.40
50 m	-	-	-	-	-	-	EVC897	\$504.56

WASHDOWN ETHERNET D-CODE CABLE (FIELD BUS), 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	\$49.18	-	-
0.5 m	EVF549	\$51.52	-	-	EVF529	\$51.73	-	-
1.0 m	EVF550	\$57.03	-	-	EVF530	\$57.45	-	-
2.0 m	EVF551	\$67.63	EVF557	\$65.30	EVF531	\$68.26	EVF518	\$44.52
5 m	EVF552	\$99.00	EVF558	\$95.61	EVF532	\$100.06	EVF519	\$76.53
10 m	EVF553	\$151.58	EVF559	\$146.28	EVF533	\$153.06	EVF520	\$129.53
20 m	EVF554	\$257.37	EVF560	\$248.04	EVF534	\$259.06	EVF521	\$235.74
50 m	-	-	-	-	-	-	EVF522	\$555.02

ACCESSORIES



	Y-splitter M12 to M12 sockets	EBC117	\$40.92
	Mounting Clip • Reliable fixing of the IO-Link mini display • Easy, quick and secure mounting • Robust design for use in harsh industrial environments	E89208	\$22.90
	IO-Link repeater • Extension of IO-Link range up to 80 m • Series connection of max. 3 repeaters possible	E30444	\$440.32















IO-Link Accessories

SIGNAL CONVERTERS & ADAPTORS



Range 0-10m, Phone to Master

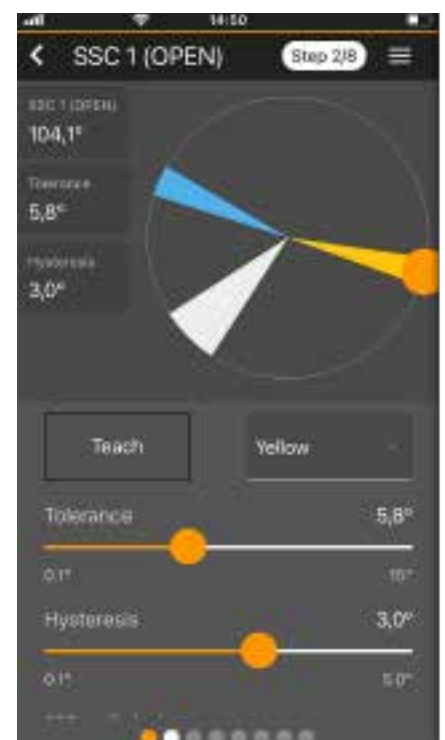
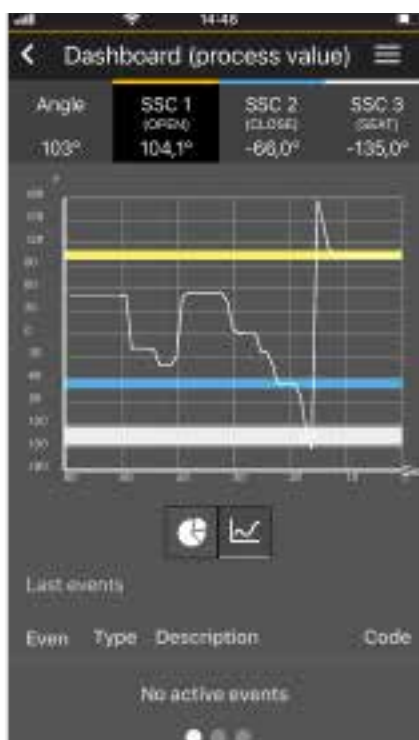
Type	Power Supply	Input	Output	Order no.	Price
	18...30 VDC	1x 4...20mA	1x digital / IO-Link	DP2200 	\$253.34
	18...30 VDC	IO-Link	2 x 4...20 mA	EIO104 	\$252.07
	18...30 VDC	IO-Link	2 x 4...20 mA	DP1213 	\$321.39
	18...30 VDC	Pulse	IO-Link	DP2302 	\$301.46
	18...30 VDC	0...10 V	IO-Link	DP1222 	\$297.01
	18...30 VDC	IO-Link	2 x 0...10 V	DP1223 	\$297.01
	18...30 VDC	IO-Link inline bluetooth adaptor		E30446 	\$252.92
	18...30 VDC	IO-Link inline bluetooth adaptor		EIO330 	\$305.28
	IO-Link Data Splitter PNP, use with EVC843 (below)			E43406 	\$319.48



MONITOR AND CONFIGURE IO-LINK DEVICES VIA BLUETOOTH ADAPTER



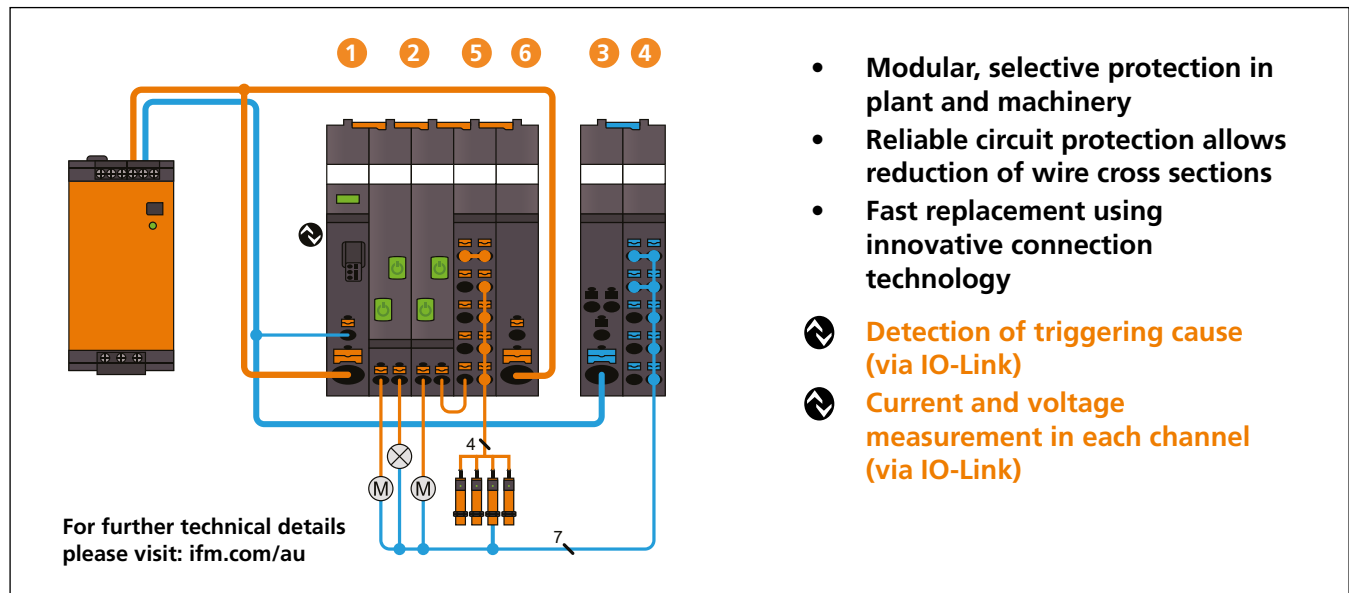
- New IO-Link Bluetooth adapter allows access to sensors via smartphone*
- Easy parameter setting and reading of process values and events of all IO-Link devices connected to the master
- ifm moneo|blue available free of charge for iOS and Android
- Convenient parameter setting of many sensors thanks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



IO-Link System Components

ELECTRONIC CIRCUIT BREAKER

For more insights:



- 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.

BEFORE



AFTER Ground Modules



Products

	Inputs [V DC]	Nominal current [A]	Order no.	Price	Order no.	Price
1	Supply modules		IO-Link		standard	
	24, 40 A	–	DF2101	\$154.76	DF1100	\$64.45
2	Protection modules		IO-Link		standard	
	–	2 x 2	DF2212	\$126.78	DF1212	\$114.27
	–	2 x 4	DF2214	\$126.78	DF1214	\$114.27
	–	2 x 6	DF2216	\$126.78	DF1216	\$114.27
	–	1 x 8	DF2208	\$110.88	DF1208	\$100.49
	–	1 x 10	DF2210	\$110.88	DF1210	\$100.49
	–	2 x 1...10	DF2220	\$144.80	DF1220	\$135.47
GND and load modules						
3	Feed module GND, 1 x 10 mm ²				DF3100	\$25.86
4	Potential module GND, 10 x 2,5 mm ²				DF3110	\$63.81
5	Potential module LOAD 2 x 5 x 2,5 mm ²				DF3200	\$69.96
6	Feed module				DF3210	\$51.52

Accessories

Type	Description	Order no.	Price
	IO-Link connection cable, 0.5 m, M12 connector	E12613	\$54.48
	IO-Link connection cable, 2 m, open end	E12614	\$54.48



Power supplies


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	/ 120	DN1030	\$207.34
2.5 A	100...240	/ 90	DN1031	\$245.71
3.3 A / 3.3 A	100...240	30 / 128	DN4011	\$323.09
4.1 A / 60 A	100...240	27 / 27	DN1022	\$387.11
5 A / 6 A	100...240	80 / 78	DN4012	\$428.03
10 A / 12 A	100...240	46 / 47	DN4013	\$559.04
20 A / 24 A	100...240	26 / 26	DN4014	\$729.70
5 A / 6 A	2 x 380...480	27 / 48	DN4032	\$497.99
10 A / 12 A	3 x 380...480	34 / 54	DN4033	\$595.72
20 A / 30 A	3 x 380...480	22 / 22	DN4034	\$797.54
40 A / 60 A	100...240	27 / 27	E84016	\$1,264.79
40 A / 60 A	3 x 380...480	–	E84036	\$1,077.81
24 V DC switched-mode power supplies for FIELD MOUNTING IP67				
20 A, 3 PH	400...480	24 / 24	DN4234	\$1,546.33





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	\$266.70
	IO-Link inline display · Connection between master and sensor Visualisation of the values of the connected sensor	E30430	\$314.18
	IO-Link display · Shows all sensor process values connected to a master	E30443	\$417.85

IO-Link PARAMETER SETTING SOFTWARE



Type	Description	Order no.	Price
	moneo configure SA License <ul style="list-style-type: none"> 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	\$260.76
	IO-Link Master USB 1P IP67	AL1060	\$542.72
	USB/M12 CABLE	E12689	\$46.00
	Connection cable	EVC012	\$44.52



Moneo: IIoT platform for industry and production

A new approach to analytical sensors



INTRODUCING MONEO & INDUSTRY 4.0



Are you ready for digital evolution?

Does digitisation really have to be complex, difficult and time-consuming? Not with moneo! With ifm's new modular IIoT software platform you can experience digitisation in a new, modern and - yes, really! - simple way. moneo converts sensor data into digital information, evaluates it and transmits it to the IT world. Act with foresight. Avoid unplanned downtimes and get the most out of your system. You will quickly realise: moneo is great. Thanks to the modular design, however, it is always just as comprehensive as you need it for your purposes. This means you can participate in the digital evolution at your own pace. Uncontrollable complexity is a thing of the past. It is time for simplicity and ingenuity. It is time for moneo! Experience the digital evolution at moneo.ifm.



Introducing moneo to new users

What it could mean for your production plant.

YOUR ADVANTAGES WITH MONEO



Digitisation can be so quick and simple. With moneo.

You can only work efficiently and successfully if you have the right tools. The same applies to digitisation. With moneo as your digital toolbox, you will always have all the tools you need for a successful implementation of your IIoT projects at your fingertips. moneo is an industry and manufacturer independent IIoT platform that is open to everything.



Open for everything
Industry independent,
manufacturer independent
IIoT platform



Optimisation of processes
Sustainable and transparent
improvement of quality,
efficiency and plant
availability



Customised system solutions
Individually adaptable for
different applications and
industries



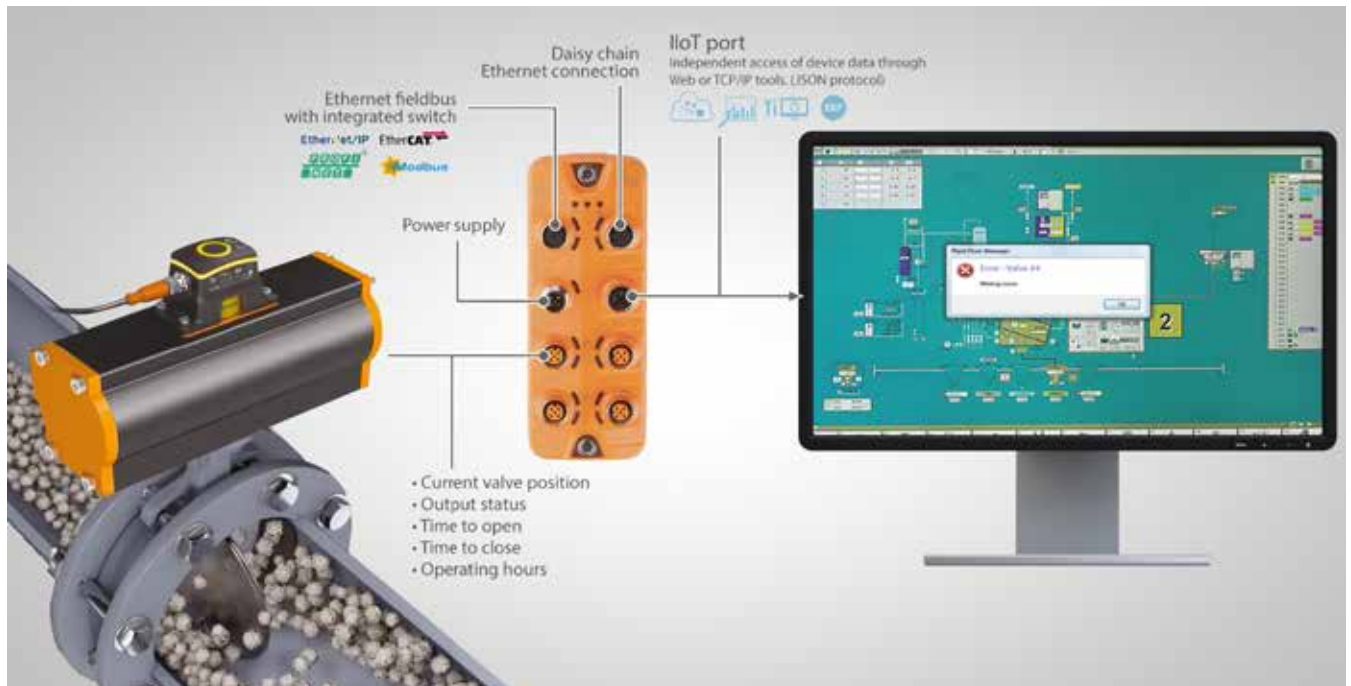
Independent of plant size
Customer specific adaption
and scaling of function
modules for all machines

moneo | software modules

MONEO & IO-LINK POSITION SENSORS FOR VALVE ACTUATORS, TO DETECT PROBLEMS BEFORE THEY ESCALATE

The smart valve sensor matches settings to the application software (moneo SA) or inductive teach button. Any end position of the valve and the size of the sensing range can be set. A third switch point can be selected, for example for three-way valves or for switching off the pump to avoid pressure peaks.

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.



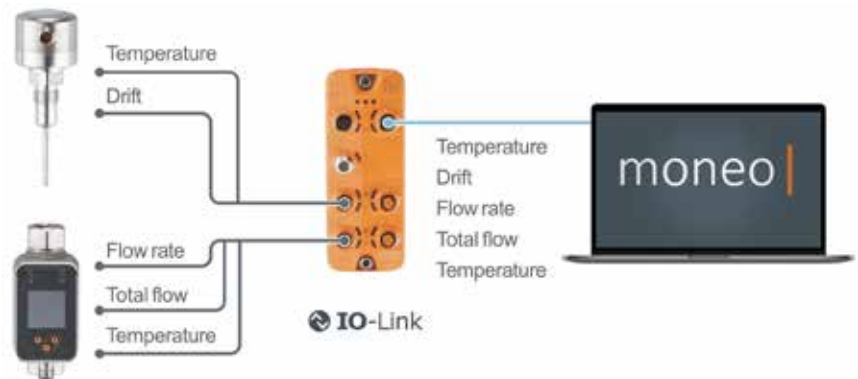
MONEO & IO-LINK - CASE STUDY - CUSTOM DASHBOARD APPLICATION

Monitoring airflow supplied to a pneumatic machine for pressure, temperature and flow. To compare efficiency with similar machines in a production plant.



moneo | application guide

SYSTEM TOPOLOGY: CASE 1

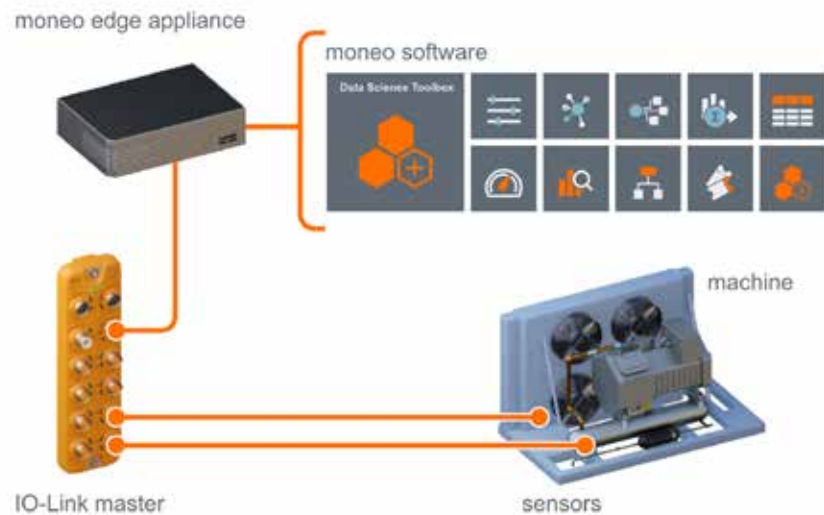


SYSTEM TOPOLOGY: CASE 2

The hardware

moneo|appliance

- Optionally within existing infrastructures and easy to implement in the production network.
- Simple set-up without IT specialist knowledge.
- Network node for **data collection and processing**.
- **Continuous system maintenance** through integrated data backup, updates, support and logging.

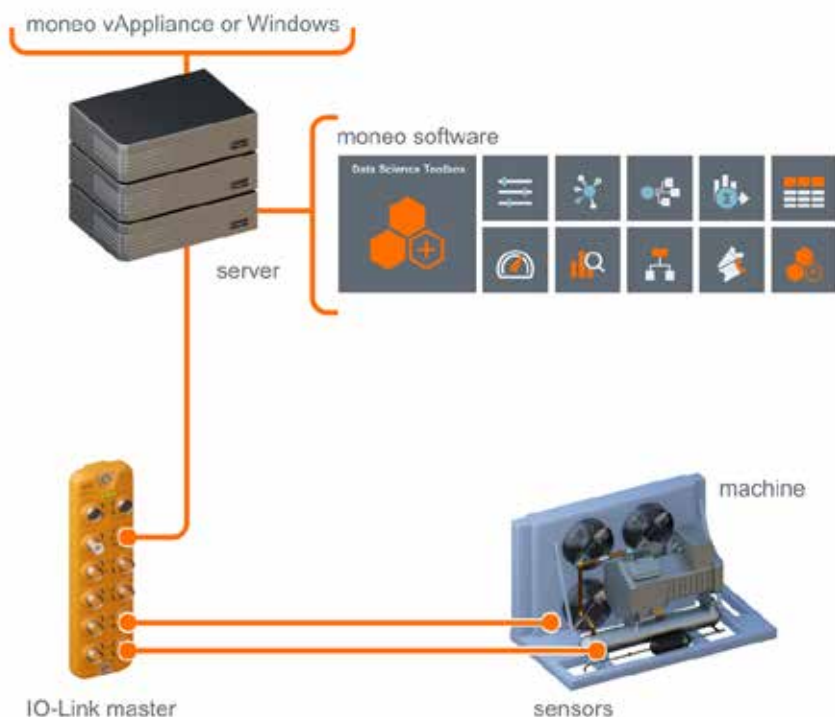


SYSTEM TOPOLOGY: CASE 3

The virtual machine

moneo|vAppliance

- **Fast commissioning** of moneo in virtual environments
- Convenient initial configuration via the appliance management system
- **Continuous system maintenance** through integrated data backup, updates, support and logging
- Shorter deployment times and improved utilization of existing hardware





moneo | application reports

COMMON APPLICATIONS



Control cabinet monitoring with moneo RTM

Condition monitoring of electrical components In a control cabinet, electrical and electronic components are protected from dust and water as well as electromagnetic and mechanical influences that can lead to damage or failure. Waste heat produced by the components and site-related temperature fluctuations can cause overheating and increased humidity due to condensation. In order to be able to restore the ideal conditions quickly, the control cabinet is monitored.



Vibration monitoring of fans in a central extraction system

In an extraction system in the production hall, the fan performance is decisive. Soldering fumes and fine dusts produced must be properly extracted. If there is no permanent fan monitoring, there is a risk that the plant might suddenly fail. Fine dusts produced by laser marking that are not extracted will lead to a loss of quality. Special care should also be taken with soldering fumes because they are highly hazardous to health. There is the risk of a total failure of the entire production area if machines come to a standstill because waste heat cannot be adequately dissipated.



Condition monitoring of a fan based on the current consumption

Detecting the quality of the phase currents on a fan of an exhaust system for the needs-based organisation of maintenance units.



Detecting the operating status of a compressor based on the current consumption

Detecting the operating hours of a compressor based on the operating status. The correct functioning of a compressor is essential for the production processes. The availability of a compressor has an enormous impact on many production-relevant systems and processes.



Continuous level measurement on tanks of a CIP system with moneo RTM and radar sensors

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.



Temperature monitoring in a CIP plant

A CIP set is a process plant commonly found in the food and beverage industry, which undergoes cleaning in place (CIP). When processing biological substances destined for consumption, such as milk, strict hygiene is vital to prevent the introduction of harmful germs that could endanger the health of consumers.



Pump monitoring in a CIP plant using the moneo SmartLimitWatcher

In this use case, a supply pump– one of the central elements of a CIP plant– is to be monitored in order to detect and signal any anomalies in time. The example illustrates the use of moneo|RTM for data recording and visualisation. Using the SmartLimitWatcher function of the DataScienceToolbox, a model is calculated that monitors the pump after a teach-in phase and reports any deviations.



Explore the future.
Try out the IIoT software
moneo. Free for 30 days.



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

\$3,898.68

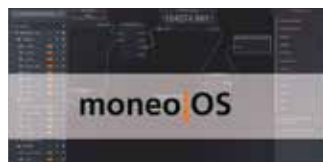


Moneo vAppliance

For the operation of moneo in virtualisation
environments

QVA200

\$10,578.80



moneo OS

This installation and update file allows for installation or updating of the IIoT
toolkit ifm moneo on Windows. Further moneo modules and apps only need to be
licensed, not installed. This file is also to be used for a version update.

QMS001

\$1,038.80

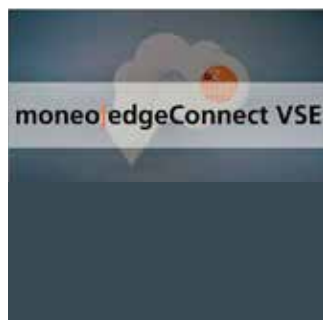


moneo infopoints

Information points (measured values) are licensed depending on the number of the
connected data sources

QMI001

\$26.08



moneo edgeConnect VSE

QMC206

\$1,102.40

moneo edgeConnect - Licence for communication with ifm devices

QMC206

\$1,102.40

moneo edgeConnect - Licence for communication with the ifm Agent software

QMC003

\$551.20

moneo edgeConnect - licence for communication with the AWS IoT cloud

QMC132

\$1,102.40

moneo edgeConnect - licence for communication with the Microsoft Azure IoT cloud

QMC133

\$1,102.40



moneo RTM

Is the condition monitoring app of the moneo IIoT toolkit. The software enables
the user to monitor critical equipment in a targeted manner and to optimize
manufacturing processes. The operating system moneo OS must be installed and be
licensed separately.

QMR001

\$1,738.40

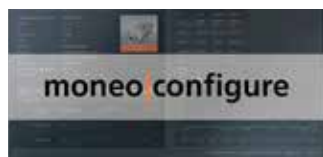


moneo DataScience

Toolbox (DataScienceStarter LIC) enables the automatic and early detection of
anomalies for intelligent monitoring and optimization of manufacturing processes.
The operating system moneo OS and the condition monitoring software module
moneo RTM must be installed and licensed separately.

QM9103

\$5,300.00



moneo configure

SA (stand-alone) is the tool for online and offline parameter setting of IO-Link
devices with just a few clicks. A convenient management tool for every IO-Link
network. This stand-alone version allows to get started immediately.

QMP010

\$260.76



moneo | software modules

PERFORMANCE FEATURES

	Configure device <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> View local and online IODD catalog Install updates Import IODD files
	Device management <ul style="list-style-type: none"> View all devices and calculated values Select desired infopoints from each sensor or calculated value Manually add new devices by IP address
	Calculated values <ul style="list-style-type: none"> Simple drag and drop interface for logic/math functions Preconfigured templates available or create your own Produces additional infopoints from sensor values
	Monitoring table <ul style="list-style-type: none"> Displays all process values with time/date stamp from devices currently on the network Provides verification that devices have been properly added
	Dashboard <ul style="list-style-type: none"> Drag and drop interface to quickly create custom dashboards for a machine or process Images and drawings of equipment or processes can be uploaded <ul style="list-style-type: none"> Selectable visualizations – thermometer, gauge, traffic light, chart, etc.
	Data Science Toolbox <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Review warning/alarm history and check current status Acknowledge and clear open warnings and alarms
	Raw data recording <ul style="list-style-type: none"> Set rules for triggering of raw vibration sensor data recording Recording can be triggered by a warning/alarm or time based
	edgeConnect <ul style="list-style-type: none"> 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

\$7,884.28

Data Science Toolbox / Smart Limit Watcher license.
Requires QM9102 moneo | software bundle sold separately.

QM9103





\$5,300.00

moneo | infopoints license, priced per point.
Purchase additional infopoints up to 5000 total.

QMI001

\$26.08

ACCESSORIES

Type	Description	Order no.	Price
	moneo configure SA License <ul style="list-style-type: none"> 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	\$260.76
	IO-Link Master USB 1P IP67	AL1060	\$542.72
	USB/M12 CABLE	E12689	\$46.00
	Connection cable	EVC012	\$44.52

CREATE A MONEO SYSTEM TO SUIT YOUR NEEDS





Connection technology

Selection Guide



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)



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

		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	\$32.01	EVT067	\$36.46	EVF067	\$45.16	EVM004	\$40.28
5 m		EVC005	\$37.31	EVT004	\$41.76	EVF004	\$46.00	EVM005	\$47.28
10 m		EVC006	\$46.00	EVT005	\$51.30	EVF005	\$56.82	EVM006	\$55.97
15 m		EVC086	\$65.72	EVT094	\$57.88	EVF094	\$70.38	EVM019	\$64.87
20 m		EVC087	\$76.11	EVT095	\$67.84	-	-	-	-
25 m		EVC088	\$81.20	EVT006	\$80.14	EVF006	\$88.83	EVM012	\$87.77
40 m		-	-	EVT066	\$109.39	-	-	-	-
50 m		EVC715	\$135.68	-	-	EVF479	\$154.55	EVM010	\$141.40
60 m		-	-	EVT068	\$148.40	-	-	-	-

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	\$32.01	EVT064	\$36.46	EVF064	\$44.73	EVM001	\$40.28
5 m		EVC002	\$37.31	EVT001	\$41.76	EVF001	\$46.00	EVM002	\$47.28
10 m		EVC003	\$46.00	EVT002	\$51.30	EVF002	\$56.82	EVM003	\$55.97
15 m		EVC082	\$65.72	EVT092	\$57.88	EVF092	\$73.56	EVM018	\$64.87
20 m		EVC083	\$76.11	EVT093	\$67.84	-	-	-	-
25 m		EVC084	\$81.20	EVT003	\$80.14	EVF003	\$88.83	EVM014	\$87.77
40 m		EVC759	\$110.88	EVT418	\$109.39	-	-	-	-
50 m		EVC710	\$135.68	-	-	EVF484	\$179.99	-	-
60 m		-	-	EVT343	\$148.40	-	-	EVM065	\$168.33
70 m		-	-	EVT438	\$214.12	-	-	-	-

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	\$34.34	-	-	-	-	EVM039	\$42.40
5 m		EVC074	\$42.61	EVT013	\$46.64	EVF013	\$52.58	EVM040	\$52.15
10 m		EVC075	\$58.30	EVT014	\$62.33	EVF014	\$70.17	EVM041	\$69.32
15 m		EVC423	\$65.72	EVT104	\$77.59	-	-	-	-
25 m		-	-	-	-	EVF015	\$122.75	-	-

<p>Wiring</p>	<p>EVC</p>		<p>EVT</p>		<p>EVF</p>		<p>EVM</p>	
	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	\$34.34	EVT235	\$42.61	-	-	EVM036	\$42.40
5 m	EVC071	\$42.61	EVT010	\$46.64	EVF010	\$52.58	EVM037	\$52.15
10 m	EVC072	\$58.30	EVT011	\$62.33	EVF011	\$70.17	EVM038	\$69.32
15 m	EVC197	\$65.72	-	-	-	-	-	-
20 m	EVC198	\$74.41	-	-	-	-	-	-
25 m	EVC199	\$89.25	EVT012	\$109.18	EVF012	\$122.75	-	-
30 m	EVC561	\$177.23	-	-	-	-	-	-
40 m	-	-	EVT420	\$146.92	-	-	-	-
50 m	EVC562	\$295.74	-	-	-	-	-	-
60 m	EVC591	\$354.04	-	-	-	-	-	-

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

<p>Wiring</p>	<p>EVC</p>		<p>EVT</p>		<p>EVF</p>	
	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	\$30.53	-	-	-	-
2 m	EVC076	\$27.98	EVT071	\$40.07	EVF071	\$44.31
5 m	EVC077	\$36.46	EVT072	\$45.79	EVF072	\$51.09
10 m	EVC078	\$54.27	EVT073	\$54.48	EVF073	\$67.20
20 m	EVC177	\$75.68	-	-	-	-
25 m	-	-	EVT350	\$78.02	-	-

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

<p>Wiring</p>	<p>EVC</p>		<p>EVT</p>	
	EVC Industrial	Price	EVT F&B	Price
Cable Material	Black, TPU		Orange, PVC	
Nut Material	Ni Pl brass		SS 316 L	
2 m	EVC079	\$27.98	EVT088	\$40.07
5 m	EVC080	\$36.46	EVT090	\$45.79
10 m	EVC081	\$54.27	EVT327	\$51.30



<p>Wiring</p>								
	EVC Industrial	Price	EVC Industrial	Price	EVC Industrial	Price	EVC Industrial	Price
	Cable Material	Orange, PA	Cable Material	Orange, PA	Cable Material	Orange, PA	Cable Material	Orange, PA
	Nut Material	Ni Pl brass	Nut Material	Ni Pl brass	Nut Material	Ni Pl brass	Nut Material	Ni Pl brass
-	EVC810	\$33.50	EVC811	\$33.50	EVC812	\$33.50	EVC813	\$33.50

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

<p>Wiring</p>								
	EVC Industrial	Price	EVC Industrial	Price	EVC Industrial	Price	EVC Industrial	Price
	Cable Material	Orange, PA	Cable Material	Orange, PA	Cable Material	Orange, PA	Cable Material	Orange, PA
	Nut Material	Ni Pl brass	Nut Material	Ni Pl brass	Nut Material	Ni Pl brass	Nut Material	Ni Pl brass
-	EVC814	\$36.04	EVC815	\$36.04	EVC816	\$36.04	EVC817	\$36.04

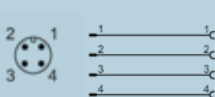




WIRABLE - WASHDOWN M12 SOCKETS & M12 PLUGS, **4PIN**, IP69K, 4 AMP (MAX)

<p>Wiring</p>								
	EVF F&B	Price	EVF F&B	Price	EVF F&B	Price	EVF F&B	Price
	Cable Material	Grey, PA	Cable Material	Grey, PA	Cable Material	Grey, PA	Cable Material	Grey, PA
	Nut Material	SS316L	Nut Material	SS316L	Nut Material	SS316L	Nut Material	SS316L
-	EVF565	\$50.03	EVF566	\$50.03	EVF567	\$50.03	EVF568	\$50.03

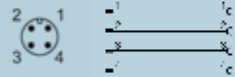

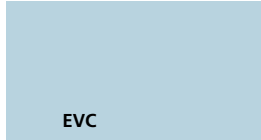

WIRABLE - WASHDOWN M12 SOCKETS & M12 PLUGS, **5PIN**, IP69K, 4 AMP (MAX)

<p>Wiring</p>								
	EVF F&B	Price	EVF F&B	Price	EVF F&B	Price	EVF F&B	Price
	Cable Material	Grey, PA	Cable Material	Grey, PA	Cable Material	Grey, PA	Cable Material	Grey, PA
	Nut Material	SS316L	Nut Material	SS316L	Nut Material	SS316L	Nut Material	SS316L
-	EVF569	\$54.27	EVF570	\$54.27	EVF571	\$54.27	EVF572	\$54.27

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

 <p>Wiring</p>	 <p>EVC</p>		 <p>EVT</p>		 <p>EVF</p>		 <p>EVM</p>	
	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	\$41.98	EVT040	\$64.45	EVF040	\$74.41	-	-
0.6 m	EVC011	\$43.25	EVT041	\$65.30	EVF041	\$75.05	-	-
1 m	EVC012	\$44.52	EVT042	\$70.38	EVF042	\$80.56	-	-
2 m	EVC013	\$47.49	EVT043	\$71.23	EVF043	\$81.83	EVM089	\$54.91
5 m	EVC014	\$59.15	EVT044	\$77.38	EVF044	\$89.04	EVM090	\$68.26
10 m	EVC108	\$75.68	EVT045	\$87.98	EVF045	\$101.34	-	-
15 m	EVC117	\$92.64	EVT109	\$93.92	-	-	-	-
20 m	EVC118	\$108.12	-	-	-	-	-	-
25 m	-	-	EVT359	\$112.57	-	-	-	-

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

 Wiring	 EVC		 EVC		 EVF		 EVT	
	EVC Industrial	Price			EVF F&B	Price	EVT F&B	Price
Cable Material	Black, TPU				Grey, MPPE		Orange, PVC	
Nut Material	Ni Pl brass				SS 316 L		SS 316 L	
0.3 m	EVC015	\$41.98	-	-	EVF046	\$74.41	-	-
0.6 m	EVC016	\$43.25	-	-	EVF047	\$75.05	-	-
1 m	EVC017	\$44.10	-	-	EVF048	\$80.56	-	-
2 m	EVC018	\$47.49	-	-	EVF049	\$81.83	-	-
3 m	EVC103	\$48.76	-	-	EVF445	\$82.26	-	-
5 m	EVC019	\$58.72	-	-	EVF050	\$89.04	-	-
10 m	EVC109	\$75.68	-	-	EVF051	\$103.03	-	-
15 m	EVC133	\$91.58	-	-	-	-	-	-
20 m	EVC134	\$108.12	-	-	EVF503	\$135.89	-	-

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

<p>Wiring</p>		<p>EVC</p>	
Cable Material	Black, TPU		
Nut Material	Ni Pl brass		
0.3 m	EVC025	\$41.98	
0.6 m	EVC026	\$43.25	
1 m	EVC027	\$44.52	
2 m	EVC028	\$47.49	
3 m	EVC140	\$51.73	
5 m	EVC029	\$59.36	
10 m	EVC342	\$66.36	
20 m	EVC175	\$108.12	

Other jumpers available on request:



Wiring		EVF		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	\$84.59	-	-	-	-	-	-	-
0.5 m	EVF491	\$85.22	-	-	-	-	-	-	-
1 m	EVF492	\$92.01	-	-	-	-	-	-	-
2 m	EVF493	\$94.13	-	-	EVF480	\$47.91	EVF485	\$47.91	
5 m	EVF494	\$101.55	-	-	EVF481	\$54.91	EVF486	\$54.91	
10 m	EVF495	\$115.54	-	-	EVF482	\$67.42	-	-	
20 m	EVF496	\$135.89	-	-	EVF483	\$88.83	-	-	
50 m	-	-	-	-	EVF484	\$179.99	-	-	

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

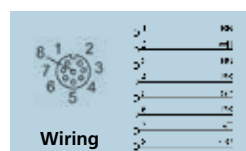
Wiring		EVC		EVC		EVC	
	EVC Industrial	Price	EVC Industrial	Price	EVC Industrial	Price	
Cable Material	Black, TPU		Black, TPU		Black, TPU		
Nut Material	Ni Pl brass		Ni Pl brass		Ni Pl brass		
0.3 m	-	-	-	-	-	-	
0.6 m	-	-	-	-	-	-	
1 m	-	-	EVC725	\$46.43	-	-	
2 m	EVC719	\$50.67	EVC726	\$50.67	EVC706	\$35.19	
5 m	EVC720	\$62.12	EVC727	\$62.12	EVC707	\$41.13	
10 m	EVC721	\$76.74	-	-	EVC708	\$51.52	
15 m	-	-	-	-	-	-	
20 m	EVC722	\$97.73	-	-	EVC709	\$83.95	
50 m	-	-	-	-	EVC710	\$135.68	





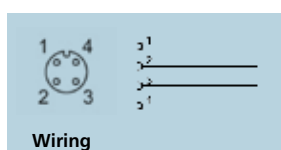
	EVC Industrial	Price	EVT F&B	Price
Cable Material	Black, TPU		Orange, PVC	
Nut Material	Ni Pl brass		SS 316 L	
0.6 m	EVC056	\$61.69	-	-
1 m	EVC057	\$62.54	EVT060	\$69.32
2 m	EVC058	\$66.36	EVT061	\$70.38
5 m	EVC059	\$76.74	EVT062	\$71.44
10 m	EVC189	\$94.13	EVT063	\$85.22
15 m	EVC190	\$110.24	-	-
20 m	EVC201	\$128.47	-	-
25 m	EVC202	\$163.24	-	-

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



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	\$75.26	E11950	\$59.15	E12281	\$84.59
5 m	E11232	\$92.86	E11807	\$90.10	E11230	\$108.12
10 m	E12169	\$95.19	E11311	\$120.20	E12360	\$149.67

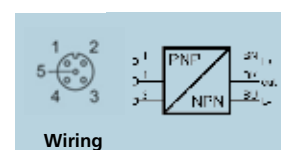
WIRABLE - INDUSTRIAL M18 SOCKETS, **4PIN**, IP68, 4 AMP (MAX)



Material	Black, PA	Price	Black, PA	Price
-	E10137	\$25.02	E10013	\$25.02

M12 SOCKET **PNP/NPN INVERTER** MODULE

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



	EVC Industrial	Price
Cable Material	Black, PUR	
Nut Material	Ni Pl brass	
2 m	EVC01E	\$43.88
5 m	EVC05E	\$76.11

	E11 Industrial	Price
Cable Material	Black, PUR	
Nut Material	Ni Pl brass	
2 m	E12282	\$32.44
5 m	E10210	\$45.58



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

 Wiring	 EVC	
	EVC Industrial	Price
Cable Material	Black, TPU	
Nut Material	Ni Pl brass	
2 m	E12402	\$81.41
5 m	E12403	\$98.79
10 m	E12404	\$126.78

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

 Wiring	(Screened to the nut)		(Not screened to the nut)		(Screened to the nut)		(Screened to the nut)	
	EVC		EVT		EVC		EVT	
	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	\$36.25	-	-	-	-
5 m	EVC542	\$47.49	EVT386	\$43.25	EVC539	\$47.49	EVT382	\$43.25
10 m	EVC543	\$60.42	EVT387	\$55.76	EVC540	\$60.42	EVT383	\$55.76
20 m	-	-	EVT441	\$83.74	-	-	-	-
25 m	EVC767	\$112.15	EVT388	\$94.13	-	-	EVT384	\$94.13
35 m	-	-	EVT442	\$123.17	-	-	-	-
50 m	-	-	EVT443	\$161.76	-	-	-	-

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

 Wiring	(Screened to the nut)		(Screened to the nut)		(Screened to the nut)		(Screened to the nut)	
	EVC		EVT		EVC			
	EVC Industrial	Price			EVC Industrial	Price		
Cable Material	Black, TPU				Black, TPU			
Nut Material	Ni Pl brass				Ni Pl brass			
5 m	EVC548	\$52.36	-	-	EVC545	\$52.36	-	-
10 m	EVC549	\$70.60	-	-	EVC546	\$70.60	-	-
15m	EVC563	\$91.37	-	-	-	-	-	-



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)

	EVC		EVT		EVC		EVM	
	Wiring							
	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	\$38.37	EVT069	\$43.25	EVC644	\$35.83	EVM007	\$47.49
5 m	EVC008	\$43.88	EVT007	\$48.76	EVC645	\$40.70	EVM008	\$53.42
10 m	EVC009	\$53.21	EVT008	\$57.88	EVC646	\$49.40	EVM009	\$63.18
25 m			EVT009	\$88.40			EVM011	\$94.34

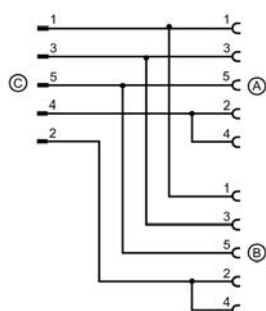
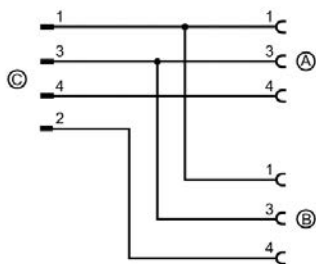
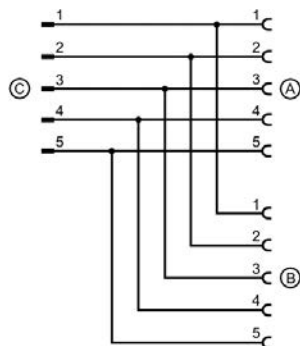
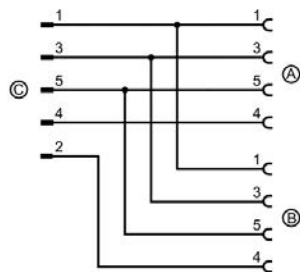
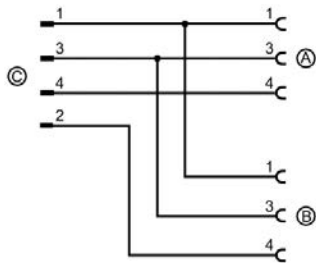
LED - M8 SOCKET, 3PIN, IP69K, 3 AMP (MAX)

	EVC		EVT	
	Wiring			
	EVC Industrial	Price	EVT F&B	Price
Cable Material	Black, TPU		Orange, PVC	
Nut Material	Ni Pl brass		SS 316 L	
5 m	EVC148	\$43.88	EVT131	\$57.66
10 m	-		EVT132	\$68.48

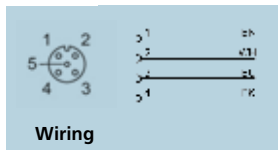
LED - M12 JUMPER CABLE WITH VALVE PLUG (TYPE A, B, C)

	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	\$46.22	E11421	\$46.22	E11426	\$51.94
0.6 m	E11417	\$47.28	E11422	\$47.28	E11427	\$53.64
1 m	E11418	\$49.18	E11423	\$50.46	E11428	\$54.70
2 m	E11419	\$52.58	E11424	\$52.58	E11429	\$58.72
5 m	E11420	\$64.45	E11425	\$64.45	E11430	\$69.32

Wiring Diagrams



Type	Description	Order no.	Price
Connector: 2 x M12 Sockets, 1x M12 Plug			
	Housing: PA orange; Sealing: FKM, brass, nickel-plated	EBC113	\$40.92
	Housing: PA orange; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	EBT006	\$45.79
	Housing: PA grey; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	EBF006	\$46.85
Connector: 2 x M12 Sockets, 1x M12 Plug			
	Housing: PA grey; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	EBF008	\$46.85
Connector: 2 x M12 Sockets, 1x M12 Plug			
	Housing: PA orange; Sealing: FKM, brass, nickel-plated	EBC116	\$40.92
	Housing: PA orange; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	EBT009	\$45.79
	Housing: PA grey; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	EBF009	\$46.85
Connector: 2 x M8 Sockets, 1x M12 Plug			
	Housing: PA orange; Sealing: FKM, brass, nickel-plated	EBC112	\$38.80
	Housing: PA grey; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	EBF012	\$46.64
	Housing: PA orange; Halogen-free; Sealing: EPDM, stainless steel (1.4404 / 316L)	EBT012	\$43.67
Connector: 2 x M12 Sockets, 1x M12 Plug			
	Housing: PA orange; Sealing: FKM, brass, nickel-plated	EBC114	\$40.92



	EVC Industrial	Price	EVT F&B	Price
Cable Material	Blue, PUR		Blue, PUR	
Nut Material	Ni Pl brass		Ni Pl brass	
2 m	ENC01A	\$33.07	ENC04A	\$33.07
5 m	ENC02A	\$45.16	ENC05A	\$45.16
10 m	ENC03A	\$69.75	ENC06A	\$69.75

JUMPER 1 X M12 PLUG, 2 X M12 SOCKET

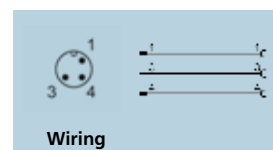
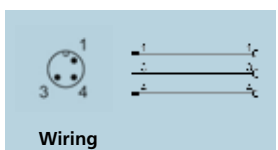


	EVC Industrial	Price	EVC Industrial	Price	EVF F&B	Price	EVF F&B	Price
Cable Material	Black, TPU		Black, TPU		Grey, MPPE		Grey, MPPE	
Nut Material	Ni Pl brass		Ni Pl brass		SS 316 L		SS 316 L	
1 m	EVC431	\$63.39	EVC434	\$63.39	EVF329	\$94.34	EVF332	\$94.34
2 m	EVC432	\$66.14	EVC435	\$66.14	EVF330	\$97.31	-	-
5 m	EVC433	\$74.84	EVC436	\$74.84	EVF331	\$106.85	-	-

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

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







	EVT F&B	Price
Cable Material	Orange, PVC	
Nut Material	SS 316 L	
0.6 m	EVT266	\$62.12
1 m	EVT267	\$62.54
2 m	EVT268	\$64.66
5 m	EVT269	\$69.96





	EVT F&B	Price
Cable Material	Orange, PVC	
Nut Material	SS 316 L	
0.3 m	EVT236	\$61.90
0.6 m	EVT237	\$62.12
1 m	EVT238	\$62.54
2 m	EVT239	\$64.66



Note: Cable sheath
3.0...5.0 mm range

<div>Socket</div> <div></div> <div>Wiring</div>		<div>Plug</div> <div></div>		<div>E11</div> <div></div>		<div>E11</div> <div></div>	
		EVC Industrial	Price	EVC Industrial	Price		
Cable Material		Black, PA		Black, PA			
Nut Material		Ni Pl brass		Ni Pl brass			
-		E11552	\$27.35	E11550	\$27.35		

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

<div>Socket</div> <div></div> <div>Wiring</div>		<div>Plug</div> <div></div>		<div></div> <div>E11</div>		<div></div> <div>E11</div>	
		EVC Industrial	Price			EVC Industrial	Price
Cable Material		Black, PA				Black, PA	
Nut Material		Ni Pl brass				Ni Pl brass	
-		E11553	\$26.08			E11551	\$26.08

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	\$32.01	EVT122	\$36.25	EVF122	\$35.40	-	-
5 m	EVC142	\$37.31	EVT123	\$46.85	EVF123	\$46.00	EVM021	\$47.49
10 m	EVC143	\$46.00	EVT124	\$55.76	EVF124	\$54.48	EVM022	\$57.24
15 m	-	-	-	-	-	-	EVM023	\$72.08
20 m	EVC501	\$64.66	-	-	-	-	-	-
25 m	-	-	EVT125	\$84.59	EVF125	\$82.26	-	-
45 m	EVC502	\$107.70	-	-	-	-	-	-

ANGLED 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	EVC144	\$32.01	EVT126	\$36.25	EVF126	\$35.40	-	-
5 m	EVC145	\$37.31	EVT127	\$46.85	EVF127	\$46.00	-	-
10 m	EVC146	\$46.00	EVT128	\$55.76	EVF128	\$54.48	-	-
25 m	-	-	EVT129	\$84.59	EVF129	\$82.26	-	-

<p>Wiring</p>	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	\$33.50	EVT134	\$37.31	EVF134	\$36.46	EVM028	\$43.04
5 m	EVC151	\$39.43	EVT135	\$44.31	EVF135	\$43.04	EVM029	\$49.18
10 m	EVC152	\$48.55	EVT136	\$53.42	EVF136	\$52.15	EVM030	\$58.51
15 m	EVC387	\$57.24	EVT274	\$70.60	-	-	EVM031	\$74.41
25 m	-	-	EVT137	\$82.26	EVF137	\$80.35	-	-

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

<p>Wiring</p>	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	EVC153	\$33.50	EVT138	\$37.31	EVF138	\$36.46	-	-
5 m	EVC154	\$39.43	EVT139	\$44.31	EVF139	\$43.04	-	-
10 m	EVC155	\$48.55	EVT140	\$53.42	EVF140	\$52.15	-	-
25 m	-	-	EVT141	\$82.26	EVF141	\$80.35	-	-

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

<p>Wiring</p>	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	\$41.34	-	-
0.6 m	EVC266	\$42.61	-	-
1 m	EVC267	\$44.52	EVT144	\$70.17
2 m	EVC268	\$47.49	EVT145	\$71.02
5 m	EVC269	\$59.15	EVT146	\$76.96
10 m	EVC467	\$71.02	-	-
15 m	EVC518	\$85.65	-	-





Type	Ports	Signals on contact	LED	Output	Cable	Order no.	Price
	4	2 and 4	•	PNP	5 m	EBC016	\$246.56
	4	2 and 4	•	PNP	10 m	EBC028	\$309.52
	6	2 and 4	•	PNP	5 m	EBC020	\$309.52
	6	2 and 4	•	PNP	10 m	EBC032	\$421.88
	8	2 and 4	–	–	5 m	EBC022	\$319.06
	8	2 and 4	–	–	10 m	EBC034	\$399.62
	8	2 and 4	•	PNP	5 m	EBC024	\$348.10
	8	2 and 4	•	PNP	10 m	EBC035	\$324.57
	16	2 and 4	•	PNP	10 m	EBC036	\$427.18

PANEL WALL CONNECTORS



Type	Size	Pins	Length	Mounting Thread	Order no.	Price
M12 Plug, brass, nickel-plated						
	M12	4 Wire	120 mm	M20	E11295	\$27.35
	M12	4 Wire	500 mm	M20	E11293	\$27.35
	M12	5 Wire	500 mm	M16	E11588	\$27.35
	M12	8 Wire	500 mm	PG9	E11194	\$28.83
M12 Socket, brass, nickel-plated						
	M12	4 Wire	500 mm	PG9	E11067	\$31.80
	M12	5 Wire	500 mm	M16	E12408	\$23.53
	M12	8 Wire	500 mm	PG9	E11601	\$48.76

WALL PASSAGE CONNECTORS

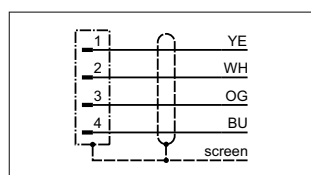


Type	Size	Pins	Length	Mounting Thread	Order no.	Price
M12 - M12 Plug, 5-wire						
	M12	5 Wire		Brass, nickel-plated	E73008	\$39.86
	M12	5 Wire		Stainless steel	E73009	\$51.94

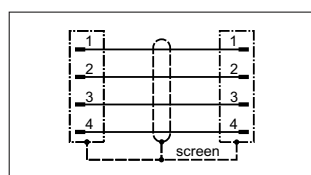
Type	Description	Order no	Price
M12 cable plug · 4 poles · straight			
	2.0 m	EVC893	\$31.16
	5.0 m	EVC894	\$60.84
	10.0 m	EVC895	\$110.03
	20.0 m	EVC896	\$208.40
	50.0 m	EVC897	\$504.56
M12 cable plug · 4 poles · angled			
	2.0 m	EVC898	\$31.16
	5.0 m	EVC899	\$60.84
	10.0 m	EVC900	\$110.03
	20.0 m	EVC901	\$208.40
	50.0 m	EVC902	\$504.56
M12 connection cable · 4 poles · straight-straight			
	0.25 m	EVC903	\$34.34
	0.5 m	EVC904	\$36.46
	1.0 m	EVC905	\$41.76
	2.0 m	EVC906	\$51.73
	5.0 m	EVC907	\$81.20
	10.0 m	EVC908	\$130.59
	20.0 m	EVC909	\$228.96
M12 cable plug · 4 poles · straight-angled			
	0.25 m	EVC910	\$34.34
	0.5 m	EVC911	\$36.46
	1.0 m	EVC912	\$41.76
	2.0 m	EVC913	\$51.73
	5.0 m	EVC914	\$81.20
	10.0 m	EVC915	\$130.59
	20.0 m	EVC916	\$228.96
M12 connection cable · 4 poles · angled-angled			
	0.25 m	EVC917	\$34.34
	0.5 m	EVC918	\$36.46
	1.0 m	EVC919	\$41.76
	2.0 m	EVC920	\$51.73
	5.0 m	EVC921	\$81.20
	10.0 m	EVC922	\$130.59
	20.0 m	EVC923	\$228.96

Type	Description	Order no	Price
Connection cable M12 connector			
	2.0 m	EVC943	\$73.35
	5.0 m	EVC944	\$149.04
	2.0 m	EVC945	\$73.35
	5.0 m	EVC946	\$149.04
Connection cable M12 socket			
	2.0 m	EVC939	\$76.74
	5.0 m	EVC940	\$152.43
	2.0 m	EVC941	\$76.74
	5.0 m	EVC942	\$152.43
Connection cable with terminating resistor 120 Ω, M12 socket			
	2.0 m	EVC957	\$88.62
	5.0 m	EVC958	\$164.30
	2.0 m	EVC959	\$88.62
	5.0 m	EVC960	\$175.75
	10.0 m	EVC961	\$261.82
Connection cable M12 connector / M12 socket			
	1.0 m	EVC947	\$88.62
	2.0 m	EVC948	\$107.06
	5.0 m	EVC949	\$181.68
Connection cable M12 connector / M12 socket			
	1.0 m	EVC950	\$88.62
	2.0 m	EVC951	\$107.06
	5.0 m	EVC952	\$181.68
Connection cable M12 connector / M12 socket			
	1.0 m	EVC953	\$88.62
	2.0 m	EVC954	\$107.06
	5.0 m	EVC955	\$181.68
	10.0 m	EVC956	\$265.64
Connection cable with terminating resistor 120 Ω, M12 connector / M12 socket			
	2.0 m	EVC962	\$118.93
	5.0 m	EVC963	\$193.13
	10.0 m	EVC964	\$277.08
Connection cable with terminating resistor 120 Ω, M12 connector / M12 socket			
	2.0 m	EVC965	\$118.93
	5.0 m	EVC966	\$193.13
	10.0 m	EVC967	\$277.08

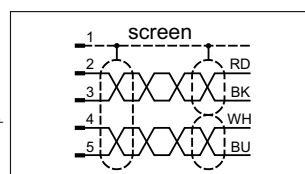
Wiring diagram



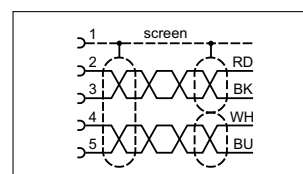
Example EVC898



Example EVC917



Example EVC943



Example EVC939



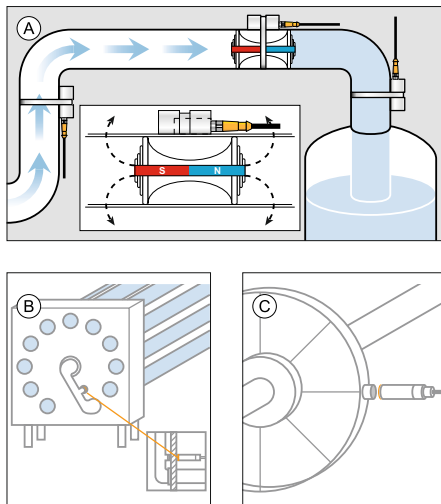
Magnetic Sensors

Selection Guide

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



Type x Length	Sensing range [mm]	Output function	Electrical design	Order no.	Price
4-pole					
M8 x 60	60	NO	DC, PNP	ME5010	\$149.67
M8 x 60	60	NO	DC, PNP	ME5011	\$145.01
M12 x 60	60	NO	DC, NPN	MFS209	\$133.35
M12	60	NO	DC, PNP	MFS211	\$133.35
M12	60	NO	DC, PNP	MFT202	\$162.82
4-pole					
M18 x 60	70	NO	DC, PNP	MGS204	\$133.35
M18	70	NO	DC, PNP	MGT203	\$162.82

Accessories

Type	Description	Order no.	Price
	Damping element M3.0, barium ferrite	E10751	\$17.17
	Damping element M5.0, barium ferrite	E10753	\$28.83

Inductive sensors

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

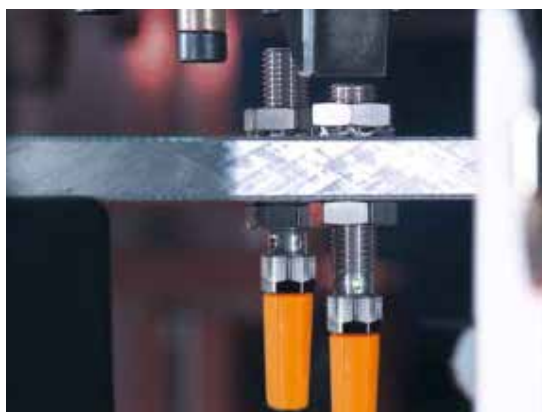
Long Range Inductive Sensors

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	\$170.02
M5, L=45	SS-316L	0.8f	10-36 DC	PNP, NO	-25 70	2,000	100	M8 3w		IY5036	\$182.11

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=40	Metal	3f	10-30 DC	PNP/NPN	0 60	800	100	M8		IE5338	\$122.11
M8, L=50	Metal	2f	10-36 DC	PNP, NO	-25 70	1,300	300	M8		IE5287	\$158.36
M8, L=50	Metal	2f	10-36 DC	PNP, NC	-25 70	1,300	200	M8		IE5319	\$182.96
M8, L=50	Metal	2f	10-36 DC	PNP, NO	0 100	1,000	100	M12		IE5379	\$148.40
M8, L=60	Metal	4nf	10-36 DC	PNP, NO	-25 70	1,000	100	M8		IE5391	\$131.44
M8, L=60	Metal	2f	10-36 DC	PNP, NO	0 100	1,000	100	M12		IE5392	\$162.60
M8, L=62	Metal	2f	10-36 DC	PNP, NO	-25 70	1,000	250	M12		IE5257	\$154.55
M8, L=62	Metal	4nf	10-36DC	PNP, NO	-25 70	300	200	M12		IE5288	\$154.55
F&B Applications, IP69k											
M8, L=40	SS-304	5nf	10-30 DC	PNP/NPN	0 60	600	100	M8		IE5340	\$122.11
M8, L=40	SS-316L	3f	10-30 DC	PNP, NO	-40 85	2,000	100	M8	K1	IES200	\$117.02
M8, L=40	SS-316L	6nf	10-30 DC	PNP, NO	-40 85	2,000	100	M8	K1	IES201	\$117.02
M8, L=50	SS-316L	2f	10-36 DC	PNP, NO	-25 70	100	100	M8	Coolant	IEC201	\$126.78
M8, L=50	SS-316L	2f	10-36 DC	NPN, NO	-25 70	100	100	M8	Coolant	IEC202	\$126.78
M8, L=55	SS-316L	2nf	10-36 DC	PNP, NO	-25 80	2,000	200	M12		IE5295	\$170.24





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	100	100	M12		IFC278	\$110.45
M12, L=40	Metal	4f	10-30 DC	PNP, NO	-40 85	700	100	2m Cable		IFS256	\$109.18
M12, L=43	Metal	2f	20-36 DC	PNP, NO	-25 80	1,500	200	M12		IF5538	\$134.83
M12, L=45	Metal	4f	10-30 DC	PNP, NO	-25 70	700	100	M12		IFS204	\$107.27
M12, L=50	Metal	7nf	10-36 DC	PNP, NO	-25 70	700	100	M12		IFS205	\$107.27
M12, L=45	Metal	4f	10-30 DC	PNP, NC	-25 70	700	100	M12		IFS206	\$107.27
M12, L=45	Metal	4f	10-30 DC	PNP, NO	-40 85	700	100	M12		IFS244	\$106.64
M12, L=60	Metal	4f	10-36 DC	PNP, NO	-25 70	700	100	M12		IFC229	\$126.56
M12, L=60	Metal	4f	10-60 DC	PNP, NO	-40 85	700	100	M12		IFS240	\$106.64
M12, L=60	Metal	4f	10-36 DC	PNP/NPN, NO/NC	-25 70	700	100	M12		IF5936	\$147.13
M12, L=60	Metal	7nf	10-36 DC	PNP/NPN, NO/NC	-25 70	500	100	M12		IF5937	\$147.13
M12, L=60	Metal	4nf	10-30 DC	PNP/NPN, NO/NC		600	100	M12	IO-Link	IF6124	\$120.20
M12, L=60	Metal	4f	10-30 DC	NPN, NO	-40 85	700	100	M12		IFS242	\$106.64
M12, L=60	Metal	4f	10-30 DC	PNP, NC	-40 85	700	100	M12		IFS248	\$106.64
M12, L=60	Metal	10nf	10-30 DC	PNP, NO	-40 85	2,000	100	M12		IFS306	\$112.36
M12, L=65	Metal	8nf	10-30 DC	PNP, NO	-25 70	2,000	100	M12	Coolant	IFC246	\$112.15
M12, L=65	Metal	3f	10-30 DC	PNP, NO	-25 70	2,000	100	M12	Weld	IFW200	\$120.42
M12, L=71	Metal	4nf	20-250 AC	NO	-25 80	25	200	2m Cable		IF0187	\$223.66
M12, L=73	Metal	4f	20-140 AC	NO	-25 80	25	200	M12		IF0311	\$216.24
M12, L=72	PBT	4f	20-250 AC	NO	-25 80	25	200	2m Cable		IF0003	\$191.86
M12, L=80	Metal	2f	10-30 DC	PNP, NO	-25 80	800	200	M12		IF5580	\$134.83

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	\$112.36
M12, L=45	SS-316L	10nf	10-30 DC	PNP, NO	-40 85	2,000	100	M12	K1	IFS299	\$112.36
M12, L=45	SS-316L	4f	10-30 DC	PNP, NO	0 100	800	100	M12	FDA	IFT203	\$123.81
M12, L=45	SS-316L	4f	10-36 DC	PNP, NO	0 100	800	100	M12	FDA	IFT204	\$123.81
M12, L=50	SS-316L	7nf	10-36 DC	PNP, NO	0 100	800	100	M12	FDA	IFT200	\$123.81
M12, L=60	SS-316L	3f	10-36 DC	PNP, NO	-40 60	100	100	M12	3D,3G	IF503A	\$157.09
M12, L=60	SS-304	4f	10-60 DC	PNP/NPN, NO	-40 85	400	200	M12	Mobile	IFM213	\$128.05
M12, L=60	SS-316L	4f	10-30 DC	PNP, NO	-40 85	2,000	100	M12	K1	IFS304	\$112.36
M12, L=60	all SS-316L	3f	10-30 DC	PNP, NO	0 100	100	100	M12	FDA	IFT240	\$140.13
M12, L=60	all SS-316L	3.6f	10-30 DC	PNP/NPN, NO/NC	0 100	100	100	M12	IO-Link	IFT258	\$139.07
M12, L=70	SS-304	7nf	10-36 DC	PNP/NPN	-40 85	300	100	M12	Mobile	IFM204	\$112.57
M12, L=70	SS-304	4f	10-60 DC	PNP, NO	-40 85	400	200	M12	Mobile	IFM205	\$128.05
M12, L=70	SS-304	7nf	10-60 DC	PNP, NO	-40 85	300	200	M12	Mobile	IFM206	\$128.05
M12, L=70	SS-316L	7nf	10-30 DC	PNP/NPN, NO	0 100	700	100	M12	FDA	IFT202	\$139.92
M12, L=70	SS-316L	4f	10-30 DC	PNP/NPN, NO	0 100	500	100	M12	FDA	IFT205	\$139.92
M12, L=70	SS-316L	4f	10-36 DC	PNP, NO	0 100	700	100	M12	FDA	IFT216	\$138.44
M12, L=79	SS-304	7nf	10-36 DC	PNP/NPN, NO	-40 85	300	100	6m Cable	Mobile	IFM208	\$129.74



Accessories

Type	Description	Order no.	Price
	Angle bracket for type M12, stainless steel	E10735	\$6.15



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	\$107.27
M18, L=45	Metal	8f	10-30 DC	PNP, NO	-40 85	400	100	M12		IGS236	\$119.36
M18, L=45	Metal	12nf	10-30 DC	PNP, NO	-40 85	300	100	M12		IGS237	\$119.36
M18, L=45	Metal	8f	10-30 DC	PNP, NC	-40 85	400	100	M12		IGS252	\$119.36
M18, L=60	Metal	12nf	10-30 DC	PNP/NPN, NO	-40 85	300	100	M12	IO-Link	IG6616	\$135.04
M18, L=60	Metal	8f	10-30 DC	PNP, NO	-40 85	400	100	M12		IGS232	\$119.36
M18, L=60	Metal	12nf	10-30 DC	PNP, NO	-40 85	300	100	M12		IGS233	\$119.36
M18, L=60	Metal	8f	10-30 DC	NPN, NO	-40 85	400	100	M12		IGS234	\$119.36
M18, L=60	Metal	12nf	10-30 DC	NPN, NO	-40 85	300	100	M12		IGS235	\$119.36
M18, L=60	Metal	8f	10-30 DC	PNP, NC	-40 85	400	100	M12		IGS240	\$119.36
M18, L=60	Metal	7.5f	10-30 DC	PNP/NPN, NO	-40 85	100	100	M12	IO-Link	IGC260	\$150.10
M18, L=65	Metal	5f	10-30 DC	PNP, NO	-25 70	2,000	100	M12	Coolant	IGC232	\$145.86
M18, L=65	Metal	12nf	10-30 DC	PNP, NO	-25 70	2,000	100	M12	Coolant	IGC233	\$145.86
M18, L=70	Metal	8f	20-250AC/DC	NO	-25 70	25	250	1/2"		IG0344	\$241.68
M18, L=70	Metal	8f	10-36 DC	PNP/NPN, NO/NC	-25 70	400	100	M12		IG5953	\$140.13
M18, L=70	Metal	8f	10-30 DC	PNP/NPN, NO	-25 70	400	100	M12		IGS208	\$120.63
M18, L=70	Metal	12nf	10-30 DC	PNP, NO	-25 70	300	100	M12		IGS213	\$110.88
M18, L=70	Metal	8f	10-30 DC	PNP, NO	-25 70	400	100	M12		IGS212	\$110.88
M18, L=70	Metal	12nf	10-30 DC	PNP, NO	-25 80	300	200	M12		IG5841	\$168.12
M18, L=72	Metal	12nf	10-36 DC	PNP/NPN, NO/NC	-25 70	250	100	M12		IG5954	\$140.13
M18, L=77	Metal	8nf	10-36 DC	PNP, NO	0 180	400	150	5m Cable	HIGH TEMP	IG6119	\$509.86
M18, L=80	PBT	5f	20-250AC/DC	NO	-25 80	50	100	2m Cable		IG0005	\$199.70
M18, L=80	Metal	5f	20-250AC/DC	NO	-25 80	50	100	2m Cable		IG0011	\$206.49
M18, L=80	PBT	5f	20-250AC/DC	NC	-25 80	50	100	10m Cable		IG0097	\$215.82
M18, L=80	PBT	8f	10-55 DC	PNP/NPN, NO	-25 80	300	400	2m Cable		IG5533	\$118.93
M18, L=80	Metal	8nf	10-55 DC	PNP/NPN, NO	-25 80	300	400	2m Cable		IG5596	\$124.87
M18, L=80	Metal	8nf	10-30 DC	PNP, Complmtry	-25 80	300	200	M12		IG5842	\$133.14
M18, L=90	Metal	8nf	10-36 DC	PNP, NO	-25 80	300	250	M12		IG5602	\$129.53
M18, L=90	Metal	8f	10-55 DC	PNP/NPN, NO/NC	-25 80	700	400	M12		IG5806	\$132.71



Accessories

Type	Description	Order no.	Price
	Angle bracket for type M18, stainless steel	E10736	\$7.00



Inductive sensors

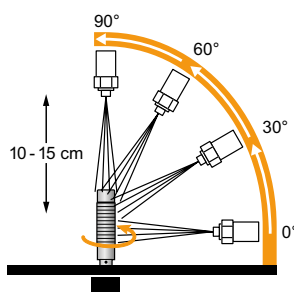
M18 INDUCTIVE SENSORS

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	\$126.56
M18, L=45	all SS-316L	8f	10-30 DC	PNP, NO	0 100	100	100	M12	FDA	IGT258	\$155.40
M18, L=45	all SS-316L	10qf	10-30 DC	PNP, NO	0 100	200	100	M12	FDA	IGT261	\$161.33
M18, L=46	all SS-316L	10qf	10-30 DC	PNP, NO	0 100	200	100	M12	FDA	IGT203	\$136.74
M18, L=51	SS-316L	12nf	10-36 DC	PNP, NO	0 100	300	100	M12	FDA	IGT200	\$136.74
M18, L=57	SS-316L	8f	10-36 DC	PNP, NO	0 100	600	100	6m Cable	FDA	IGT206	\$156.88
M18, L=60	all SS-316L	8f	10-30 DC	PNP, NC	-40 85	2,000	100	M12	K1	IGS306	\$112.36
M18, L=60	SS-316L	8f	10-30 DC	PNP, NO	-40 85	2,000	100	M12	K1	IGS290	\$126.56
M18, L=60	SS-316L	15nf	10-30 DC	PNP, NO	-40 85	2,000	100	M12	K1	IGS292	\$126.56
M18, L=60	SS-316L	8f	10-30 DC	PNP, Complmtry	-40 85	2,000	100	M12	K1	IGS300	\$137.59
M18, L=60	all SS-316L	7.5f	10-30 DC	PNP/NPN, NO/NC	0 100	100	100	M12	IO-Link	IGT260	\$150.10
M18, L=70	SS-316L	5f	10-36 DC	PNP, NO	-40 60	100	100	M12	3D,3G	IG510A	\$157.09
M18, L=70	SS-316L	5f	10-36 DC	PNP, NC	-40 60	100	100	M12	3D,3G	IG512A	\$157.09
M18, L=70	SS-304	8f	10-36 DC	PNP/NPN, NO	-40 85	200	100	M12	Mobile	IGM200	\$112.57
M18, L=70	SS-304	12nf	10-36 DC	PNP/NPN, NO	-40 85	200	100	M12	Mobile	IGM201	\$112.57
M18, L=70	SS-304	8f	10-60 DC	PNP, NO	-40 85	200	200	M12	Mobile	IGM204	\$128.05
M18, L=70	SS-304	12nf	10-60 DC	PNP, NO	-40 85	200	200	M12	Mobile	IGM205	\$128.05
M18, L=70	SS-316L	5f	20-140AC/DC	NO	0 100	25	80	1/2"		IGT002	\$176.81
M18, L=70	SS-316L	12nf	10-30 DC	PNP/NPN, NO	0 100	300	100	M12	FDA	IGT202	\$154.76
M18, L=70	SS-316L	8f	10-36 DC	PNP/NPN, NO	0 100	400	100	M12	FDA	IGT205	\$154.76
M18, L=70	SS-316L	5f	10-36 DC	PNP, NO	0 100	100	100	M12	FDA	IGT247	\$155.40
M18, L=70	all SS-316L	12nf	10-36 DC	PNP, NO	0 100	500	100	M12	FDA	IGT249	\$181.26
M18, L=76	SS-316L	5f	10-36 DC	PNP, NO	-25 80	500	250	M12		IG5813	\$129.53
M18, L=80	SS-316L	8nf	20-250AC/DC	NO	-25 80	25	250	2m Cable		IG0062	\$215.39
M18, L=81	SS-316L	8nf	20-250AC/DC	NO	-25 80	25	250	M18		IG0303	\$248.89
M18, L=81	SS-316L	8f	10-60 DC	PNP, NO	-40 85	200	200	6m Cable	Mobile	IGM206	\$144.37
M18, L=81	SS-316L	12nf	10-30 DC	PNP/NPN, NO	0 100	300	100	10m Cable	FDA	IGT213	\$172.36
M18, L=90	SS-316L	8f	10-36 DC	PNP, NO	0 100	400	100	M12	FDA	IGT241	\$147.13

F&B WASHDOWN SENSOR APPROVALS

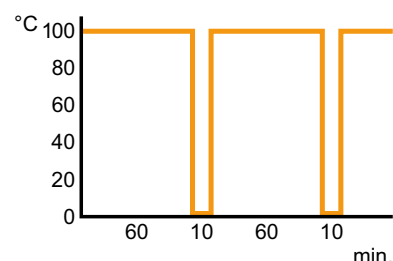


High-pressure cleaning test IP 69K:



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=50	Metal	15f	10-30 DC	PNP, NC	-40	85	100	100	M12	IIS246	\$134.41
M30, L=60	Metal	15f	10-30 DC	PNP, NO	-40	85	100	100	M12	IIS226	\$134.41
M30, L=60	Metal	22nf	10-30 DC	PNP, NO	-40	85	100	100	M12	IIS227	\$134.41
M30, L=65	Metal	22nf	10-30 DC	PNP, NO	-40	70	2,000	100	M12	IIC219	\$149.25
M30, L=65	Metal	12f	10-30 DC	PNP/NPN, NO/NC	-40	85	100	100	M12	IO-Link	IIS973 \$148.40
M30, L=65	Metal	22nf	10-30 DC	PNP/NPN, NO/NC	-40	85	100	100	M12	IO-Link	IIS974 \$148.40
M30, L=70	Metal	15f	10-36 DC	PNP/NPN, NO	-25	70	100	100	M12	IIS206	\$150.73
M30, L=70	Metal	12f	10-60 DC	PNP, NO	-40	85	100	100	M12	Mobile	IIM208 \$164.51
M30, L=72	Metal	15f	10-36 DC	PNP/NPN, NO/NC	-25	70	200	100	M12	IIS860	\$150.31
M30, L=75	Metal	15nf	10-36 DC	PNP, NO	-40	70	100	250	M12	IIS910	\$138.22

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											
M30, L=45	SS-316L	15f	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	IIS281 \$140.13
M30, L=60	Metal	15f	10-30 DC	PNP, NC	-40	85	100	100	M12	IIS234	\$134.41
M30, L=60	Metal	22nf	10-30 DC	PNP, NC	-40	85	100	100	M12	IIS236	\$134.41
M30, L=60	SS-316L	15f	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	IIS282 \$140.13
M30, L=60	SS-316L	30nf	10-30 DC	PNP, NO	-40	85	2,000	100	M12	K1	IIS284 \$140.13
M30, L=65	SS-316L	12f	10-30 DC	PNP/NPN, NO/NC	0	100	50	100	M12	IO-Link	IIT244 \$178.93
M30, L=70	SS-316L	22nf	10-36 DC	PNP/NPN, NO	0	100	100	100	M12	FDA	IIT202 \$172.36
M30, L=70	SS-316L	10f	10-36 DC	PNP, NO	-40	60	50	40	M12	2D,3G	IIS04A \$199.92
M30, L=70	SS-316L	14f	10-36 DC	PNP/NPN, NO	0	100	100	100	M12	FDA	IIT204 \$172.36
M30, L=70	SS-316L	10f	10-36 DC	PNP, NO	0	100	50	100	M12	FDA	IIT228 \$168.75
M30, L=92	SS-316L	10f	10-55 DC	PNP/NPN, NO/NC	-25	80	450	400	M12	FDA	IIS751 \$142.04



Accessories

Type	Description	Order no.	Price
	Angle bracket for type M30, stainless steel	E10737	\$8.69



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	\$225.99
	40x40x120	15nf	20-250AC/DC	NO/NC	-25	80	20	250	M20		IM0011	\$225.99
	40x40x120	15f	10-30 DC	PNP, NO/NC	-25	80	200	200	Gland		IM5020	\$146.92
	40x40x54	20nf	10-36 DC	PNP, NO	-25	70	100	200	M12		IM5115	\$104.52
	40x40x54	35nf	10-36 DC	PNP, NO	-25	70	80	200	M12		IM5116	\$107.48
	40x40x54	40nf	10-36 DC	PNP, NO	-25	70	60	200	M12		IM5117	\$107.48
	40x40x54	20nf	10-36 DC	PNP, NO	-25	70	200	200	M12	K1	IM5119	\$124.66
	40x40x54	20nf	10-36 DC	PNP, Complmtry	-25	70	100	200	M12		IM5123	\$110.24
	40x40x54	40nf	10-36 DC	PNP, Complmtry	-25	70	200	200	M12	K1	IM5126	\$141.62
	40x40x54	40nf	10-36 DC	PNP, Complmtry	-25	70	200	200	M12	K1	IM5135	\$121.48
	40x12x26	2nf	20-250AC/DC	NO	-25	80	80	100	2m Cable		IN0073	\$192.50
	40x12x26	4nf	10-36 DC	PNP, NO	-25	80	1300	250	2m Cable		IN5129	\$133.14
	40x12x26	4nf	10-55 DC	PNP/NPN, NO/NC	-25	80	1200	300	2m Cable		IN5208	\$133.14
	32x20x8	8f	10-30 DC	PNP, NO	-40	85	400	100	2m Cable		IQ2000	\$149.25
	32x20x8	8f	10-30 DC	PNP, NO	-40	85	400	100	M12		IQ2002	\$159.21
	32x20x8	8f	10-30 DC	PNP, NC	-40	85	400	100	M12	IO-Link	IQ2003	\$159.21
	32x20x8	8f	10-30 DC	PNP/NPN, NO/NC	-40	85	300	100	2m Cable	IO-Link	IQ2008	\$173.42
	32x20x8	8f	10-30 DC	PNP/NPN, NO/NC	-40	85	300	100	M12	IO-Link	IQ2009	\$183.17
	32x20x8	8f	10-30 DC	PNP, NO	-40	85	2000	100	M12		IQ2010	\$144.80
	32x20x8	8f	10-30 DC	PNP, NC	-40	85	2000	100	0.3m, M12		IQ2013	\$154.12
	60x36x10	8f	10-36 DC	PNP, NO	-20	80	300	250	2m Cable		IW5058	\$161.97
	60x36x10	8f	10-36 DC	PNP, NO	-20	80	300	250	M8, 3W		IW5064	\$161.97
	60x35x20		10-35 DC	PNP, NO/NC	-25	70	200	200	M12	Ring Sensor	I7R215	\$289.38

Valve actuator position feedback

For more insights:



Continuous position feedback



- Valve Open
- Valve closed
- Warning: valve not completely closed



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

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.

U _b [V DC]	Shaft, height vs dia	Output function	IP Rating	Order no.	Price
Smart valve sensor · M12 connector					
10...30 DC	20mm < 38mm	3xNO/NC(selectable)	IP 67	MVQ101	\$547.81
10...30 DC	20mm < 38mm	2xNC/NO (selectable) 2xNO for valve control	IP 67	MVQ201	\$580.03

Automation set for pneumatic valve actuators

Description	IP Rating	Order no.	Price
Added value package MVQ 80x30x20	IP67	ZZ0628	\$761.72
Added value package MVQ 80x30x30	IP67	ZZ0629	\$781.43
Added value package MVQ 130x30x30	IP67	ZZ0630	\$791.18

Accessories

Design	Description	Order no.	Price
	Adapter 80 x 30 x 10 mm	E12569	\$29.68
	Adapter 130 x 30 x 10 mm	E12573	\$42.61
	Mounting bridge shaft height 20...40mm	E12674	\$100.28
	Mounting bridge shaft height 30...50mm	E12628	\$100.28

Mounting set for manual valves and ball valves

	MOUNTING KIT F. MANUAL VALVES MVQ F03/M4	E12766	\$203.94
	MOUNTING KIT F. MANUAL VALVES MVQ F04/M5	E12767	\$203.94
	MOUNTING KIT F. MANUAL VALVES MVQ F05/M5	E12768	\$203.94
	MOUNTING KIT F. MANUAL VALVES MVQ F05/M6	E12769	\$203.94
	MOUNTING KIT F. MANUAL VALVES MVQ F07/M6	E12770	\$203.94
	MOUNTING KIT F. MANUAL VALVES MVQ F07/M8	E12771	\$210.94





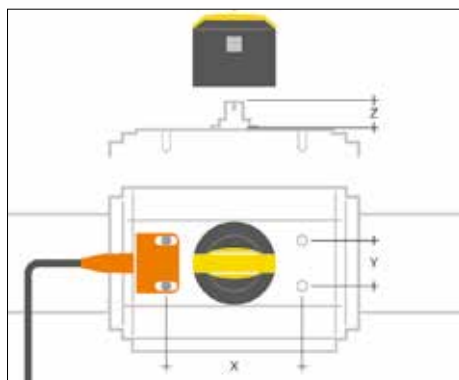
Valve position feedback switches

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	\$290.65
M12	10...36 DC	2x PNP - NO	IP67	IN5225	\$290.65
M12	10...36 DC	2x PNP - NO	IP67	IN5327	\$292.14
M12	10...30 DC	2x PNP - NO	IP67	IN5323	\$307.82
2m cable	20...140 AC/DC	2x NO	IP67	IN0100	\$365.06
M18	20...250 AC/DC	2x NO	IP67	IN0108	\$344.71

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	\$31.59
	80 / 30	30	Dia. 66 mm	E12724	\$37.31
	Switching amplifier, dual channel, transistor			N0534A	\$471.91

M12 sockets 4-pole (0.34mm sensor)

	2 m black, PUR cable	EVC004	\$32.01
	5 m black, PUR cable	EVC005	\$37.31
	10 m black, PUR cable	EVC006	\$46.00
	25 m black, PUR cable	EVC088	\$81.20

IECEx cables for NN5008

	5 m blue, PUR cable	ENC05A	\$45.16
	10 m blue, PUR cable	ENC06A	\$69.75



MANUAL VALVE FEEDBACK





Type	Description	Top Flange Dia	Order no.	Price
	Manual valve mounting set (F04/M5)	42mm	E12519	\$149.25
	Manual valve mounting set (F05/M5)	50mm	E12520	\$149.25
	Manual valve mounting set (F05/M6)	50mm	E12521	\$149.25
	Manual valve mounting set (F07/M6)	70mm	E12522	\$149.25
	Manual valve mounting set (F07/M8)	70mm	E12523	\$153.70
	Manual valve mounting set (F10/M8)	102mm	E12524	\$164.94

Motion control sensors and monitors

Precise motion monitoring


INCLINATION SENSOR



Type	Description	Order no.	Price
2 axis			
	2x Axis. Angular range $\pm 90^\circ$. Output 1 IO-Link NO/NC prog. Output 2 - NO/NC prog. PNP/NPN. Analogue 4...20 mA. Output 3 and 4 analogue	JN2200	\$686.88
	2x Axis. Angular range $\pm 45^\circ / \pm 90^\circ$, IO-Link. Output 1 - IO-Link NO/NC prog. Output 2 - NO/NC prog. PNP/NPN. Analogue 4...20 mA	JN2201	\$763.20
1 or 2 axis			
	Inclination sensor; 27 x 59 x 118.5 mm; CAN; Ambient temperature -40...85 °C; M12 Connector; [inclination measurement]: $\pm 90^\circ$	JD2120	\$1,290.02
	Inclination sensor; 27 x 59 x 105.3 mm; CAN; Ambient temperature -40...85 °C; M12 Connector; [inclination measurement]: 0...360 °	JD1111	\$1,248.68

ROTATION & SPEED MONITORS




Type	Ub [V]	Setting range [Hz]	Outputs relay	Output	Order no.	Price
1 pulse input PNP (type 2 to IEC 61131-2)						
	110...240 AC / 27 (typ. 24) DC 50...60 Hz	0.1...10 / 10...1,000	1	1 DO	DD0203	\$471.49
	110...240 AC / 27 (typ. 24) DC 50...60 Hz	0.1...1,000	2	4...20 mA	DD2503	\$700.87



Type	Installation Range	Setting Range [pulses/min]	Startup delay [s]	Order no.	Price
IO-Link Communication Interface					
M12	3.5 f	5...24,000	0...30	DI5027	\$251.22
M18	7 f	5...24,000	0...30	DI5029	\$261.82
Compact speed monitors					
M18	12 nf	3...6,000	0...15	DI6001	\$391.35

SPEED MONITOR WITH IO-LINK



Type	Inputs / Outputs	Setting range [Hz]	Output	Order no.	Price
Speed monitor IO-Link - 0...2000 Hz					
	1 x DI 2 x DO	0...2,000	PNP/NPN	DP2122	\$295.74



Encoders

INCREMENTAL ENCODERS - 1...10,000 RESOLUTION



DRAW-WIRE ENCODERS



Housing Ø [mm]	Shaft Ø [mm]	Design shaft	Flange	Order no.	Price
PerformanceLine 4-digit display, integrated pulse evaluation , 8 core					
58.5	12	hollow shaft	direct	ROP520	\$564.34
58.5	12	hollow shaft	direct	ROP521	\$576.85
58.5	15	hollow shaft	direct	ROP522	\$576.85
58.5	15.875	hollow shaft	direct	ROP524	\$584.70
58	6	solid shaft	servo	RUP500	\$534.24
58	10	solid shaft	clamp flange	RVP510	\$526.61
BasicLine Basic design without display, 5 core					
58.5	15	hollow shaft	direct	RO3110	\$982.83
58.5	15	hollow shaft	direct	RO3102	\$435.66
58.5	12	hollow shaft	direct	RO3100	\$415.31
36.5	6	solid shaft	universal	RB3100	\$392.84
58	10	solid shaft	clamp flange	RV3100	\$394.74
Resolution 1...10000; IO-Link; M12 Connector, 5 core					
58	10	solid shaft	clamp flange	RV3110	\$903.97
36.5	6	solid shaft	flange	RB3500	\$397.08
32.3	12	hollow shaft	flange	RA3110	\$805.39

Length	Shaft Ø	Design shaft	Max Speed	Order no.	Price
1.9 m	6 mm	solid shaft	2.0 m / sec	E61439	\$613.32
2.4 m	6 mm	solid shaft	1.0 m / sec	E61440	\$840.37
3.0 m	6 mm	solid shaft	0.8 m / sec	E61441	\$1,089.89
5.0 m	6 mm	solid shaft	2.0 m / sec	E61442	\$1,544.21

Accessories

Type	Description	Order no.	Price
M12 sockets 8-pole			
	5 m, 8-pole, black, PUR cable	E12403	\$98.79
	10 m, 8-pole, black, PUR cable	E12404	\$126.78
	5 m, 5-pole, black, TPU cable	EVC545	\$52.36
	10 m, 5-pole, black, TPU cable	EVC546	\$70.60
	Flexible coupling with adjusting screws, Ø 10 mm / 10 mm, aluminium	E60022	\$106.85
	Flexible coupling with clamp connection, Ø 10 mm / 10 mm, aluminium	E60067	\$105.36
	Flexible coupling with clamp connection, Ø 6 mm / 10 mm, aluminium	E60066	\$105.36
	Angle bracket RU,RN,RM,RMU	E60034	\$138.44
	Angle bracket encoders RV,RMV	E60035	\$138.44
	Spring arm	E61438	\$439.69

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	\$1,226.21
3.0 m	M12	Draw wire encoder	8,192	RMS002	\$1,617.56

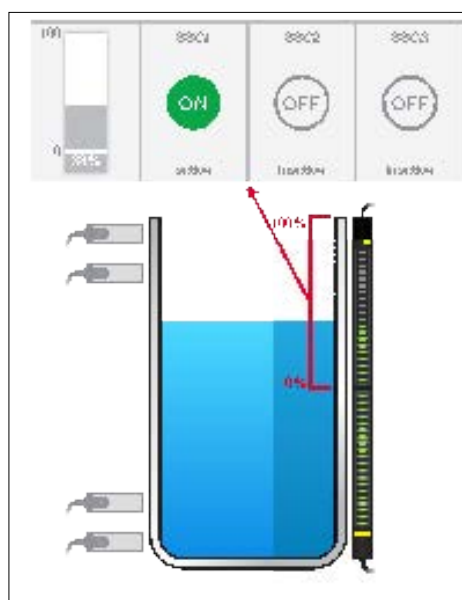
ABSOLUTE MULTI-TURN ENCODERS



Housing Ø [mm]	Shaft Ø [mm]	Flange	Resolution	Order no.	Price
Absolute position traceability					
58	10	clamp	15/16 bits	RMV300	\$1,093.92
36.5	12	direct	15/16 bits	RMA300	\$1,157.52

Capacitive sensors

Detect non-metallic targets



- 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	\$509.86
	18-30 VDC	-20...80°	IP67	0.1m cable, M12 connector, 5-pole	KQ1001	\$509.86



Accessories

Type	Description	Order no.	Price
	Mounting adapter for flat surfaces	E12675	\$48.97
	Mounting adapter for pipes	E12676	\$46.43
	Surface mount tape for KQ10	E12677	\$93.28
	PA cable tie, 760mm long (5 piece pack)	E10880	\$12.72
	2m, Black, PUR jumper, 5-pole	EVC058	\$66.36
	5m, Black, PUR jumper, 5-pole	EVC059	\$76.74



Capacitive sensors

PROGRAMMABLE RANGES



Design	Output	Sensing range [mm]	Housing material	Order no.	Price
PerformanceLine - M12 connector - 3 wires, IO-Link Com 2					
M12	PNP, NO	1...6 f	SS316S12	KF5001	\$256.94
M12	PNP, NO	3...12 nf	SS316S12	KF5002	\$256.94
M18	PNP, NO/NC	0.5...30 nf	PBT	KG6000	\$232.99
M30	PNP, NO/NC	0.5...40 nf	PBT	KI6000	\$232.99
M30	PNP, NO/NC	8 f	SS316S12	KI5085	\$287.26
M30	PNP, NO/NC	15 nf	SS316S12	KI5087	\$287.26



Accessories

Type	Description	Order no.	Price
	Mounting adapter for M30 types, G 1 1/2", POM, gasket EPDM	E11033	\$90.95
	Mounting adapter for M18 types, G 3/4", POM	E43900	\$62.12
	2 m black, PUR cable	EVC004	\$32.01
	5 m black, PUR cable	EVC005	\$37.31
	10 m black, PUR cable	EVC006	\$46.00
	25 m black, PUR cable	EVC088	\$81.20

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
PerformanceLine - M12 connector - 3 wires, IO-Link Com 2						
48 x 20 x 14	PNP	12 nf	PBT	cable 2 m	KQ6002	\$179.99
48 x 20 x 7	PNP	12 nf	PBT	cable 2 m	KQ5100	\$105.58
Connection cable with M12 connector - 3-wire						
48 x 20 x 14	PNP	12 nf	PBT	M12	KQ6005	\$203.94

MULTI COLOURED TOUCH SENSORS WITH IO-LINK



Type	Housing Material	Ambient temp	Protection rating	Connection	Order no.	Price
Multi-coloured touch sensors with IO-Link						
	Plastic PA	-20...80°	IP69K	2m cable	KT6100	\$153.49
	Plastic PA	-20...80°	IP69K	0.3m cable, M12 connector	KT6101	\$153.49
	303SS	-20...80°	IP69K	2m cable	KT6300	\$192.28
	303SS	-20...80°	IP69K	0.3m cable, M12 connector	KT6301	\$192.28

Cylinder sensors Magnetic T and C slot

Robust connection and mounting system



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.

	Cylinder Type	Type	Description	Order no.	Price
Protective Bracket for Smooth Cylinders					
<div>Smooth Cylinder</div> <div></div>	<div>Protective Bracket</div> <div></div>	<div></div>	Outside Ø 11...19 mm. Bore size 10-16 mm	E11975	\$16.32
			Outside Ø 18...29 mm. Bore size 20-25 mm	E11976	\$16.32
			Outside Ø 28...39 mm. Bore size 32 mm	E11977	\$17.17
			Outside Ø 38...49 mm. Bore size 40 mm	E11978	\$17.17
			Outside Ø 48...59 mm. Bore size 50 mm	E11979	\$18.44
			Outside Ø 58...69 mm. Bore size 63 mm	E11980	\$19.29
			Outside Ø 78...89 mm. Bore size 80 mm	E11981	\$19.93
			Outside Ø 98...109 mm. Bore size 100 mm	E11982	\$20.99
Protective Bracket for Tie-Rod Cylinders					
<div>Tie-Rod Cylinder</div> <div></div>	<div>Protective Bracket</div> <div></div>	<div></div>	Adapter for tie rod / profile cylinders, clamping range 3...7 mm, aluminium	E11913	\$12.08
			Adapter for tie rod / profile cylinders, clamping range 5...7 mm, aluminium	E11912	\$11.45
			Adapter for tie rod / profile cylinders, clamping range 5...11 mm, aluminium	E11797	\$12.30
			Adapter for tie rod / profile cylinders, clamping range 9...15 mm, aluminium	E11799	\$12.30
Integrated Profile Bracket for Integrated Profile Cylinders					
<div>Integrated Profile Cylinders</div> <div></div>	<div>Integrated Profile Bracket</div> <div></div>	<div></div>	Integrated profile thickness diameter 9...15 mm	E11799	\$12.30
			Integrated profile thickness diameter 14...20 mm	E11801	\$13.14



Cylinder sensors










MAGNETIC T AND C SLOT

No. Wires	Application	Operating Voltage (V)	Max Switching Freq'y (Hz)	Output	Connection	Notes	Order No.	Price
F&B Industry IP69k Types								
3	Washdown	10-30 DC	10,000	PNP NO	2m cable	T-Slot	MK5110	\$93.28
3	Washdown	10-30 DC	10,000	PNP NO	0.3m cable M8 plug	T-Slot	MK5111	\$104.30
3	Washdown	10-30 DC	10,000	PNP NO	6m cable	T-Slot	MK5128	\$106.85
3	Washdown	10-30 DC	6,000	PNP NO	0.3m cable M12 plug	T-Slot	MK5157	\$104.30
3	Washdown	10-30 DC	6,000	PNP NO	0.3m cable M12 plug	T-Slot	MK5177	\$104.30
3	Washdown	10-30 DC	6,000	NPN NO	0.3m cable M12 plug	T-Slot	MK5186	\$104.30
T-Slot Cylinder Sensors								
3	Industrial	10-30 DC	10,000	PNP NO	2m cable	T-Slot	MK5100	\$86.28
3	Industrial	10-30 DC	10,000	PNP NO	0.3m cable M8 plug	T-Slot	MK5101	\$92.43
3	Industrial	10-30 DC	10,000	PNP NO	0.3m cable M8 plug	T-Slot	MK5102	\$95.61
2	Industrial	10-30 DC	4,000	PNP/NPN NO	2m cable	T-Slot	MK5103	\$93.92
2	Industrial	10-30 DC	4,000	PNP/NPN NO	0.3m cable M8 plug	T-Slot	MK5104	\$102.82
2	Industrial	10-30 DC	4,000	PNP/NPN NO	0.3m cable M8 plug	T-Slot	MK5105	\$106.21
2	Industrial	10-30 DC	10,000	PNP NO	0.3m cable M12 plug	T-Slot	MK5107	\$98.16
3	Industrial	10-30 DC	10,000	PNP NO	0.3m cable M12 plug	T-Slot	MK5108	\$101.55
3	Industrial	10-30 DC	10,000	PNP NO	6m cable	T-Slot	MK5117	\$98.16
3	Industrial	10-30 DC	6,000	PNP NO	0.3m cable M8 plug	T-Slot	MK5138	\$92.43
3	Industrial	10-30 DC	6,000	2 x PNP NO	M8 plug	T-Slot	MK5208	\$191.01
3	Industrial	10-30 DC	6,000	PNP NO	M8 plug	T-Slot	MK5900	\$101.34
3	Industrial	10-30 DC	10,000	PNP NO	0.3m cable M12 plug	T-Slot	MK501A	\$111.09
2	Industrial	8.2 DC	2,000	NAMUR	6m cable	T-Slot	MK502A	\$108.12
AC/DC Versions								
2	Industrial	5-120 AC/DC	1,000	PNP/NPN NO	2m cable	T-Slot	MR0100	\$52.58
2	Industrial	5-50 AC/DC	1,000	PNP/NPN NO	0.3m cable M8 plug	T-Slot	MR0101	\$57.66
3	Industrial	5-50 AC/DC	1,000	PNP NO	0.3m cable M8 plug	T-Slot	MR0119	\$57.66
3	Industrial	5-50 AC/DC	1,000	PNP NO	0.3m cable M12 plug	T-Slot	MR0121	\$64.45
2	Industrial	5-50 AC/DC	1,000	PNP/NPN NO	M8 plug	T-Slot	MR0901	\$65.51
C-Slot Cylinder Sensors								
3	Industrial	10-30 DC	10,000	PNP NO	0.3m cable M8 plug	C-Slot	MK5310	\$107.27
3	Industrial	10-30 DC	10,000	PNP NO	0.3m cable M8 plug	C-Slot	MK5311	\$110.66


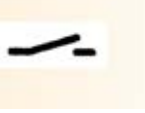

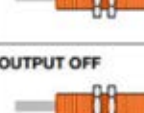
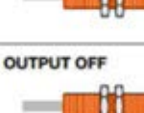

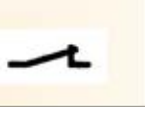

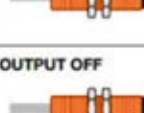
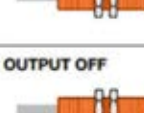
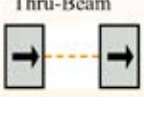
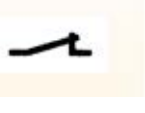
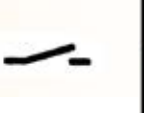

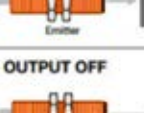

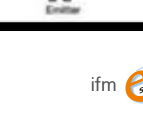


Photoelectric sensors overview

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

MODE	LIGHT ON	DARK ON	MODE	LIGHT ON	DARK ON
Diffuse 			DIFFUSE	OUTPUT ON 	OUTPUT ON 
Retroreflective 			RETRO-REFLECTIVE	OUTPUT ON 	OUTPUT ON 
Thru-Beam 			THRU-BEAM	OUTPUT ON 	OUTPUT ON 
				OUTPUT OFF 	OUTPUT OFF 

Photoelectric sensors and mounting accessories



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	\$259.49
2,000 T beam				OBF500	\$259.49
100 diffuse	M8	10...30 DC	PNP/NPN, LO/DO (prog)	OBF501	\$259.49
2,000 T beam				OBF501	\$259.49
Select fibre optics from "Accessories"					
100 diffuse	M12	10...30 DC	PNP/NPN, LO/DO (prog)	OCF500	\$334.96
2,000 T beam				OCF500	\$334.96
2,000 T beam	M12	10...30 DC	PNP/NPN, LO/DO (prog)	OCF501	\$334.96

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 1.1			
15mm	2 m PVC cable, 3 poles, programmable LO/DO	O8H200	\$224.08
30mm	2 m PVC cable, 3 poles, light on	O8H206	\$224.08
50mm	2 m PVC cable, 3 poles, programmable LO/DO	O8H212	\$224.08
50mm	0.3 m PVC cable / M8 connector, 3 poles, light on	O8H214	\$224.08
50mm	0.3 m PVC cable / M8 connector, 4 poles, programmable LO/DO	O8H216	\$224.08
80mm	2 m PVC cable, 3 poles, light on	O8H218	\$224.08
80mm	0.3 m PVC cable / M8 connector, 3 poles, light on	O8H222	\$224.08
80mm	2 m PVC cable, 3 poles, light on, BGS	O8H270	\$224.08
80mm	0.3 m PVC cable / M8 connector, 3 poles, light on	O8H271	\$224.08
80mm	0.3 m PVC cable / M8 connector, 4 poles, programmable LO/DO	O8H272	\$224.08
80mm	0.3 m PVC cable / M12 connector, 4 poles, light on	O8H273	\$224.08
Retro reflective sensor - 3 wires 24 vDC, PNP IO-Link 1.1			
1.8m	2 m PVC cable, 3 poles	O8P200	\$193.13
1.8m	0.3 m PVC cable / M8 connector, 3 poles	O8P202	\$193.13

Accessories



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.

Type	Description	Order no.	Price
	O8 Standard Angle L-bracket	E21291	\$18.44
	O8 Clamp Bracket 10 mm	E21298	\$40.28
	Rod Mounting Straight D10mm	E21081	\$24.17
	Prismatic reflector Ø 50 mm, plastic	E20004	\$13.14
	Prismatic reflector Ø 80 mm, plastic	E20005	\$15.26
	Prismatic reflector 48 x 48 mm, PMMA, ABS	E20744	\$31.38
	Mounting set for reflector E20744, clamp mounting, SS, 61 x 51 mm	E20724	\$9.12
	Adjustable mounting set,	E20950	\$22.05
	Mounting cube (for aluminium profiles)	E20951	\$22.05



Photoelectric sensors

O6 SERIES **IP67**, PHOTOELECTRIC SENSORS



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



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

Range [mm]	Light spot dia [mm]	Connector	Order no.	Order no.	Price
Diffuse reflection sensor · 3-wire DC, programmable output			PNP	NPN	
1...100	2*	M12, 3-pole (BGS)	O6H701	-	\$399.83
1...100	2*	M8, 3-pole (BGS)	O6H702	-	\$399.83
2...200	8*	M12, 3-pole (BGS)	O6H201	-	\$209.88
2...200	8*	M8, 3-pole (BGS)	O6H202	-	\$209.88
5...500	15*	M12, 3-pole	O6T201	-	\$183.17
5...500	15*	M8, 3-pole	O6T202	O6T206	\$183.17
5...600	24*	M8, 4-pole	O6T215#	O6T216#	\$183.17
Retro-reflective sensor polarisation filter · 3-wire DC			PNP	NPN	
50...5,000	150**	M12, 3-pole	O6P201	O6P205	\$183.17
50...5,000	150**	M8, 3-pole	O6P202	O6P206	\$183.17
50...5,000	150**	M8, 4-pole	O6P203	O6P207	\$183.17
Through-beam sensor transmitter · 2-wire DC					
0...10,000	300*	M12 x 0.3m, 3-pole	O6S201		\$95.61
0...10,000	300*	M8, 3-pole	O6S202		\$95.61
Through-beam sensor receiver · 3-wire DC			PNP	NPN	
0...10,000	-	M8, 3-pole	O6E202	O6E206	\$116.60

Accessories

Type	Description	Order no.	Price
Prismatic reflector			
	Ø 50 mm, plastic, -10...60° C	E20956	\$15.69
	Ø 80 mm, plastic, -10...60° C	E20005	\$15.26
	48 x 48 mm, PMMA, ABS, -10...60° C	E20744	\$31.38
	Reflector mounting bracket E20744, SS, 61 x 51 mm	E20724	\$9.12
	Adjustable mounting set,	E20946	\$31.80
	Mounting cube for aluminium profiles	E20951	\$22.05
	96 x 96 mm, plastic, -10...60° C	E20454	\$33.71
	Reflector mounting bracket E20454, SS, 100 x 100 mm	E20935	\$56.82

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	\$399.83
100	M8, 4-pole	O6H702	\$399.83
Retro-reflective sensor with polarisation filter, 3-wire DC (reflector E20722)			
75...8,000	0.3 m PUR cable / M12 connector, 4-pole	O6P701	\$374.39
Through-beam sensor transmitter, DC			
15,000	0.3 m PUR cable / M12 connector, 4-pole	O6S701	\$301.25
Through-beam sensor receiver, 3-wire DC			
15,000	0.3 m PUR cable / M12 connector, 4-pole	O6E701	\$190.16



Photoelectric sensors

O6 SERIES **IP69K**, PHOTOELECTRIC SENSORS



IP 67
IP 68
IP 69 K

High-grade stainless steel

* at maximum range.

** referred to prismatic reflector Ø 80 mm

*** 4-wire, complementary output



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	-	\$295.53
2...200	8*	M12, 3-pole (BGS)	O6H301	-	\$295.53
2...200	8*	M8, 3-pole (BGS)	O6H302	-	\$295.53
2...200	8*	M8, 4-pole (BGS)	O6H303	O6H307	\$295.53
2...200	8*	M8, 4-pole (BGS)	O6H309	-	\$303.58
2...200	8*	M8, 4-pole (BGS)***	O6H310	-	\$295.53
2...200	8*	M12 x 0.3m, 4-pole (BGS)	O6H317	-	\$303.58
5...500	15*	M12, 4-pole	O6T301	O6T305	\$257.79
5...500	15*	M8, 4-pole	O6T309	-	\$265.42
Retro-reflective sensor polarisation filter · 3-wire DC			PNP	NPN	
50...5,000	150**	M12, 4-pole	O6P301	O6P305	\$270.09
50...5,000	150**	M8, 3-pole	O6P302	O6P306	\$270.09
50...5,000	150**	M8, 4-pole	O6P309	-	\$274.12
50...5,000	150**	M8, 4-pole***	O6P310	-	\$265.42
Through-beam sensor transmitter · 2-wire DC			PNP	NPN	
0...10,000	300*	M12, 4-pole	O6S301	-	\$153.06
0...10,000	300*	M8, 3-pole	O6S302	-	\$153.06
0...10,000	300*	M8, 4-pole	O6S303	-	\$153.06
0...10,000	300*	M8, 4-pole	O6S305	-	\$161.76
Through-beam sensor receiver · 3-wire DC			PNP	NPN	
-	-	M12, 4-pole	O6E301	O6E305	\$181.05
-	-	M8, 3-pole	O6E302	O6E306	\$181.05
-	-	M8, 4-pole	O6E303	O6E307	\$181.05
0...10,000	-	M8, 4-pole	O6E309	-	\$188.89

Accessories

Type	Description	Order no.	Price
Solidchem Prismatic reflectors for the food industry (up to 140° C)			
	56 x 38 mm	E21268	\$34.56
	46 x 48 mm	E21269	\$55.76
	96 x 96 mm	E21270	\$78.86
	Mounting set for clamp mounting, stainless steel, Ø 10 mm	E21272	\$40.28
	Mounting set for clamp mounting, stainless steel, Ø 12 mm	E21275	\$38.80
	Adjustable mounting set	E20716	\$13.14
	Mounting cube (for aluminium profiles)	E20951	\$22.05
	Mounting rod, 120 mm, Ø 10 mm, M8 thread, stainless steel	E21081	\$24.17
	Mounting rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	E20938	\$14.84
	Bracket for free-standing mounting, stainless steel	E21271	\$16.11





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	-	\$288.32
100 mm (fixed)	Light On	24v DC PNP	OGH280	-	\$270.09
200 mm (fixed)	Light On	24v DC PNP	OGH281	-	\$270.09
200 mm (fixed)	Light On	24v DC NPN		OGH283	\$265.42
Retro-reflective sensor with polarisation filter · M12 connector · 3 wires					
100 mm...4 m	Dark On	24v DC PNP	OGP280	-	\$240.20
100 mm...4 m	Dark On	24v DC NPN		OGP282	\$235.74
100 mm...4 m	Light On	24v DC PNP	OGP281	-	\$240.20
Through beam sensor					
15 m	-	Transmitter	OGS280	-	\$162.39
15 m	Dark On	Receiver	OGE280	-	\$206.06
15 m	Light On	Receiver	OGE281	-	\$206.06



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	-	\$275.60
200 mm (fixed)	light-on	24v DC PNP	OGH381	-	\$275.60
Through-beam sensor - transmitter · M12 connector			PNP	NPN	
15 m	-	-	OGS380	-	\$192.50
Through-beam sensor - receiver · M12 connector · 3 wires			PNP	NPN	
15 m	dark-on	24v DC PNP	OGE380	-	\$213.27
15 m	light-on	24v DC PNP	OGE381	-	\$213.27





Photoelectric sensors

M18 OG SERIES - STAINLESS STEEL BODY



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	\$296.38
200	Prog LO/DO	IP65	-	OF5012	\$327.33
400	Prog LO/DO	IP65	-	OF5027	\$327.33
Through beam sensor, M12 connector · 3-wire DC PNP					
4,000	-	IP65	Transmitter	OF5021	\$223.24
4,000	Prog LO/DO	IP65	Receiver	OF5022	\$262.67



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 PNP					
100	Light On	IP69k	BGS	OGH300	\$302.74
250	Light On	IP65	BGS	OGH200	\$272.00
300	Prog LO/DO	IP69k	BGS	OGH312	\$315.67
300	Prog LO/DO	IP67	BGS	OGH500	\$290.86
600	Light On	IP65	-	OGT200	\$198.01
800	Prog LO/DO	IP69k	-	OGT300	\$264.58
800	Prog LO/DO	IP67	-	OGT500	\$216.24
Retro reflective sensor, M12 connector · 3-wire DC PNP					
4,000	Dark On	IP69K	-	OGP300	\$275.39
4,000	Light On	IP69K	-	OGP301	\$275.39
4,000	Dark On	IP67	-	OGP200	\$243.80
5,000	Prog LO/DO	IP67	-	OGP500	\$272.42
Through-beam sensor, M12 connector · 3-wire DC PNP					
20,000	Dark On	IP67	Receiver	OGE200	\$211.58
20,000	-	IP67	Transmitter	OGS200	\$173.63
20,000	Dark On	IP69K	Receiver	OGE300	\$242.53
20,000	Light On	IP69K	Receiver	OGE301	\$242.53
20,000	-	IP69K	Transmitter	OGS300	\$203.73



Bracket system offers accurate alignment



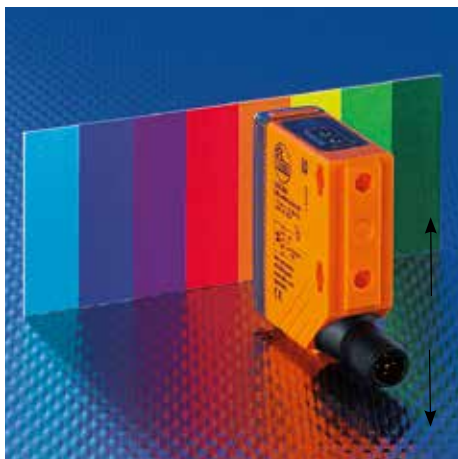
Innovative mounting brackets offer quick installation and setup. The bracket rotates 360° in each of two axes to achieve the most accurate alignment.

Accessories

Type	Description	Order no.	Price
	Clamp for Free-standing M10, capscrew, high-grade stainless steel	E20870	\$38.16
	Clamp for mounting rod Ø 12 mm, high-grade stainless steel	E21206	\$30.95
	Mounting rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	E20938	\$14.84
	Mounting cube (for aluminium profiles)	E20951	\$22.05
	Prismatic reflector, Ø 80 mm, plastic	E20005	\$15.26
	48 x 48 mm, PMMA, ABS	E20744	\$31.38
	96 x 96 mm, plastic	E20454	\$33.71

Photoelectric sensors

05 SERIES LONG RANGE PHOTOELECTRICS



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.

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	\$306.76
50...1,400	50	Light On	NPN	O5H201	\$306.76
50...1,800	50	Prog LO/DO	PNP	O5H500	\$397.50
Retro-reflective sensor · red light 624 nm · M12 connector · polarisation filter					
75...10,000	250	Prog LO/DO	PNP	O5P500	\$304.01
75...10,000	ATEX II3D	Prog LO/DO	PNP	O5P51A	\$455.59
Through-beam sensor - transmitter · M12 connector					
0...25,000	625	Prog LO/DO	Transmitter	O5S500	\$232.99
0...25,000	—	Prog LO/DO	Receiver (PNP)	O5E500	\$299.34
0...25,000	ATEX II3D	Prog LO/DO	PNP	O5E51A	\$440.54
Contrast sensor, M12 connector · 3-wire DC PNP / NPN					
18...22	1.5 x 5	Prog LO/DO	PNP/NPN	O5K500	\$579.18
Colour sensor, M12 connector · 3-wire DC PNP / NPN					
15...19	2.5 x 6	Prog LO/DO	PNP/NPN	O5C500	\$889.13
Glass sensor, M12 connector · 3-wire DC PNP / NPN					
0...3,000	80	Prog LO/DO	PNP/NPN	O5G500	\$423.36

Accessories

Type	Description	Order no.	Price
	Universal angle bracket	E21085	\$33.28
	Mounting set for clamp mounting, high-grade stainless steel, diecast zinc clamp	E21211	\$16.11
	Mounting set for clamp mounting, high-grade stainless steel	E21212	\$29.26
	Clamp for mounting rod, Ø 12 mm, diecast zinc	E20717	\$13.14
	Clamp for mounting rod, Ø 12 mm, high-grade stainless steel	E21110	\$22.05
	Mounting rod, 100 mm long, Ø 12 mm, M10 thread, stainless steel	E20938	\$14.84
	Mounting cube (for aluminium profiles)	E20951	\$22.05
	Mounting rod, 200 mm, Ø 12 mm, M10 thread, stainless steel	E20940	\$45.16
	Prismatic reflector 48 x 48 mm, plastic	E20744	\$31.38
	Prismatic reflector Ø 42 mm, plastic	E20004	\$13.14
	Prismatic reflector Ø 80 mm, plastic	E20005	\$15.26



Laser sensors

M18 OG-CUBE SERIES - LASERS

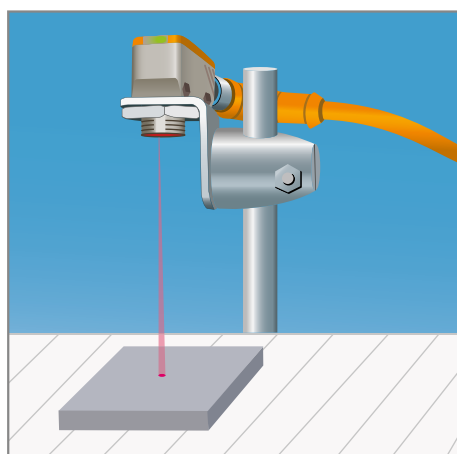


Range [mm]	Connection	Order no.	Price
Long range laser distance sensor - M12 connector, complementary output			
25...1,500	M12, 4-pole, 2 PNP outputs	OGD580	\$510.07
25...1,500	M12, 4-pole, 2 NPN outputs	OGD581	\$510.07
25...1,500	M12, 4-pole, 1 x PNP output, 1 x PNP output for target reflectivity	OGD582	\$674.80
25...1,500	M12, 4-pole, 2 PNP outputs, (plastic lens for F&B industry)	OGD583	\$674.80
Short range precision laser distance sensor - M12 connector, complementary output			
25...300	M12, 4-pole, 2 PNP outputs	OGD592	\$693.45

OG 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	\$520.04
20...200	1	DC NPN, IP67	OGH701	\$520.04
200...15m	1	DC PNP, IP67	OGP700	\$515.37
60m	1	Transmitter, DC PNP, IP67	OGS700	\$399.83
60m	1	Receiver, DC PNP, IP67	OGE700	\$275.39



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.

Accessories

Type	Description	Order no.	Price
	Clamp for Free-standing M10, capscrew, high-grade stainless steel	E20870	\$38.16
	Clamp for mounting rod Ø 12 mm, high-grade stainless steel	E21206	\$30.95
	Mounting rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	E20938	\$14.84
	Prismatic reflector, Ø 80 mm, plastic	E20005	\$15.26
	48 x 48 mm, PMMA, ABS	E20744	\$31.38
	96 x 96 mm, plastic	E20454	\$33.71
	2 m black, PUR cable	EVC001	\$32.01
	5 m black, PUR cable	EVC002	\$37.31
	2 m black, PUR cable	EVC004	\$32.01
	5 m black, PUR cable	EVC005	\$37.31
	10 m black, PUR cable	EVC006	\$46.00
	25 m black, PUR cable	EVC088	\$81.20



Laser sensors

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	\$425.06
30...2,000	1	DC PNP, IO-Link prog	IP67	OID250	\$425.06
M30 design, M12 connector, complementary output					
30...2,000	2	DC PNP, IO-Link prog	IP69K	OID204	\$420.18
30...2,000	1	DC PNP, IO-Link prog	IP69K	OID254	\$420.18

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	\$422.09
30...2,000	2	DC NPN, IO-Link prog	O5D102	\$422.09
O5 design, M12 connector, complementary output (class 1 laser)				
30...2,000	1	DC PNP, IO-Link prog	O5D150	\$422.09



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	\$18.23
Mounting set Ø 30.2 mm, clamp mounting, high-grade stainless steel	E20874	\$38.16
v2 m black, PUR cable	EVC001	\$32.01
5 m black, PUR cable	EVC002	\$37.31
10 m black, PUR cable	EVC003	\$46.00
25 m black, PUR cable	EVC084	\$81.20
2 m black, PUR cable	EVC004	\$32.01
5 m black, PUR cable	EVC005	\$37.31
10 m black, PUR cable	EVC006	\$46.00
25 m black, PUR cable	EVC088	\$81.20



Laser sensors

O1D SERIES LASER DISTANCE SENSORS



Range [mm]	Laser class	Outputs	Sample rate	Order no.	Price
Distance detection					
200...10,000	2	PNP + 4...20 mA / 0...10V	1...50 Hz	O1D100	\$760.23
200...10,000	2	DC 1 x PNP	1...5 Hz	O1D101	\$760.23
200...10,000	2	PNP + 4...20 mA / 0...10V	1...50 Hz	O1D102	\$760.23
200...10,000	2	2 x PNP or 4...20 mA / 0...10V	1...33 Hz	O1D105	\$760.23
300...6,000	1	2 x PNP or 4...20 mA / 0...10V	1...33 Hz	O1D155	\$760.23
200...10,000	2	DC PNP, IO-Link prog	1...50 Hz	O1D120	\$760.23
Level detection					
200...10,000	2	2 x PNP or 4...20 mA / 0...10V	1...33 Hz	O1D300	\$767.86
Retro-reflective distance detection					
75m	2	2 x PNP + 4...20 mA / 0...10V	1...33 Hz	O1D106	\$833.58
Use with Retro-Reflector 226 x 262 mm				E21159	\$243.38



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	\$58.51
O1D alignment swivel bracket complete with M10-Ø12mm x 130mm long mounting pole, SS316L	E21079	\$93.92
Process flange adapter G1 for O1D	E21224	\$312.91
Plastic cover for O1D	E21133	\$61.69
Glass cover for O1D	E21171	\$70.38
Cooling box / Protective cover	E21248	\$594.45
2 m black, PUR cable	EVC001	\$32.01
5 m black, PUR cable	EVC002	\$37.31
10 m black, PUR cable	EVC003	\$46.00
25 m black, PUR cable	EVC084	\$81.20
2 m black, PUR cable	EVC004	\$32.01
5 m black, PUR cable	EVC005	\$37.31
10 m black, PUR cable	EVC006	\$46.00
25 m black, PUR cable	EVC088	\$81.20



Position sensors



Measuring light grids for easy object monitoring in intralogistics.



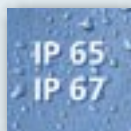
Photoelectric sensors



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.**



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

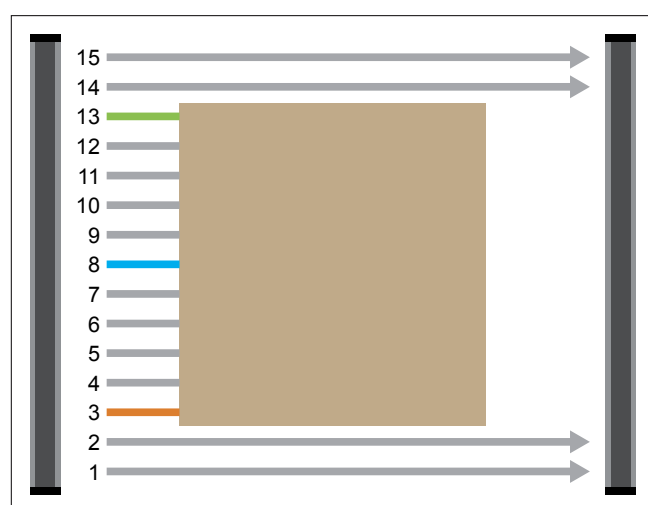
Height Light grids [mm]	Height Measuring range [mm]	Number of beams	Order no.	Price
Measuring light grids with IO-Link				
213	140	15	OY5100	\$1,453.26
663	590	60	OY5103	\$2,861.15
1113	1040	105	OY5106	\$4,291.94
1713	1640	165	OY5110	\$6,108.57
2163	2090	210	OY5113	\$7,493.56
2613	2540	255	OY5116	\$9,217.12

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 / D
H = light-on / D = dark-on mode		

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

Functional principle



Accessories

Design	Description	Order no.	Price
Mounting accessories			
	Mounting and fine adjustment unit	EY3013	\$91.80
	Adjustable brackets	EY3004	\$57.88
	Laser adjustment aid	EY3099	\$980.50
	USB IO-Link master set	ZZ1060	\$784.40

Connection technology

	Socket, M12, 5 poles 1 m, black, PUR cable	EVC196	\$31.16
	Socket, M12, 5 poles 2 m, black, PUR cable	EVC070	\$34.34
	Socket, M12, 5 poles 5 m, black, PUR cable	EVC071	\$42.61
	Socket, M12, 5 poles 10 m, black, PUR cable	EVC072	\$58.30
	Y splitter cable Range: 1...10 m	EY5053	\$81.20
	Y splitter cable Range: 0...2 m	EY5054	\$81.20

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.



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



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					
M18 x 60mm	300	4...20 mA	Wire	UGT501	\$433.96
M18 x 60mm	300	PNP	IO-Link	UGT524	\$391.35
M18 x 60mm	1,200	4...20 mA	Wire	UGT507	\$433.96
M18 x 60mm	1,200	PNP, prog	IO-Link	UGT526	\$391.35
Diffuse sensor · 4-wire DC, 4-pole					
M18 Cube	300	PNP + 4...20 mA	Button	UGT580	\$433.96
M18 Cube	300	PNP	Button / IO-Link	UGT592	\$433.96
M18 Cube	1,200	PNP + 4...20 mA	Button	UGT584	\$433.96
M18 Cube	1,200	NPN + 4...20 mA	Button	UGT590	\$433.96
M18 Cube	1,200	PNP, prog	Button / IO-Link	UGT594	\$433.96
Diffuse sensor · 4-wire DC, 4-pole					
M18 x 98mm	2,200	2 x PNP	Button, IO-Link	UGT512	\$523.64
M18 x 98mm	2,200	PNP + 4...20 mA	Button, IO-Link	UGT513	\$523.64
M18 x 98mm	2,200	PNP + 0...10 V	Button, IO-Link	UGT514	\$523.64
M18 x 98mm	2,200	NPN + 4...20 mA	Button	UGT519	\$523.64
Diffuse sensor · 4-wire DC, 4-pole					
M30 X 1.5	3,500	2 x PNP	Button, IO-Link	UIT500	\$687.94
M30 X 1.5	3,500	PNP + 4...20 mA	Button, IO-Link	UIT501	\$762.78
M30 X 1.5	6,000	PNP + 4...20 mA	Button, IO-Link	UIT504	\$888.07
M30 X 1.5	8,000	PNP + 4...20 mA	Button, IO-Link	UIT507	\$1,038.16
Diffuse sensor · 4-wire DC, 4-pole - stainless steel, IP69K					
M30 X 1.5	2,500	2 x PNP	, IO-Link	UIT300	\$987.92
M30 X 1.5	2,500	PNP + 4...20 mA	, IO-Link	UIT301	\$1,033.29



Accessories

Type	Description	Order no.	Price
	Mounting set, Ø 18.5 mm clamp mounting, high-grade stainless steel (M10 cap screw)	E20870	\$38.16
	Mounting set, Ø 30.2 mm clamp mounting, high-grade stainless steel	E20874	\$38.16
	Mounting rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	E20938	\$14.84
	Angle bracket for type M30, stainless steel	E10737	\$8.69
	Sound tube, M18, POM	E23000	\$57.24
	Sound tube, M30, POM	E23007	\$63.39
	Sound deflection angle for sensors with a range of ≤ 1,2 m, stainless steel	E23001	\$51.09
	Sound deflection angle for sensors with a range of ≤ 2,2 m, stainless steel	E23002	\$56.60

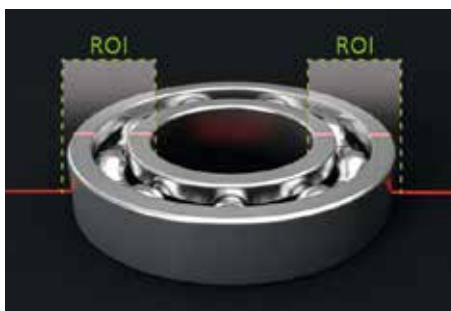
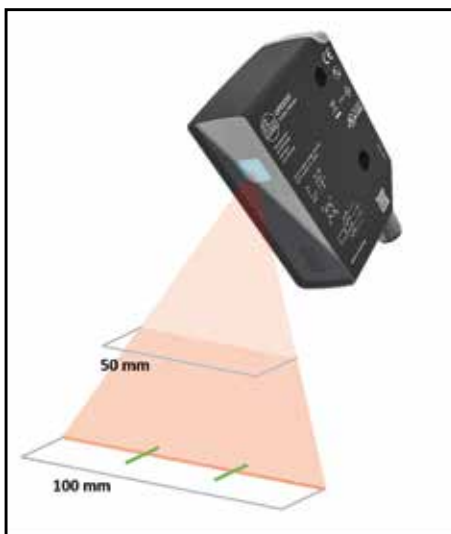


Profiler for precise contour detection

Laser sensor



- 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	\$1,739.67
150...300mm	100 (at a maximum distance of 300mm) Multiple profiles	PNP/NPN	OPD101	\$1,838.89

Accessories

Type	Description	Order no.	Price
	Mounting set OPD, 12 mm	E2D118	\$57.03
	Rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	E20938	\$14.84
	Mounting cube (for aluminium profiles)	E20951	\$22.05

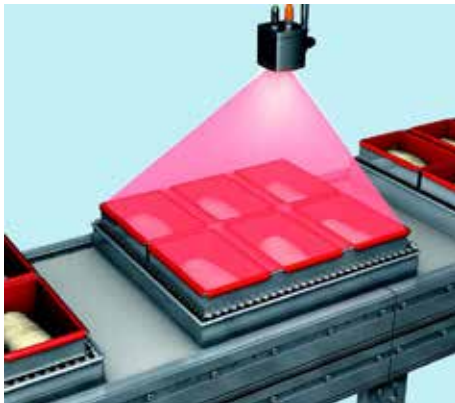
M12 sockets 5-pole (0.34mm sensor)

	2 m black, PUR cable	EVC070	\$34.34
	5 m black, PUR cable	EVC071	\$42.61
	10 m black, PUR cable	EVC072	\$58.30
	15 m black, PUR cable	EVC197	\$65.72
	20 m black, PUR cable	EVC198	\$74.41

Camera/vision solutions



3D Sensors



- 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	\$3,075.06
Aluminium	Gorilla glass / polyamide	3.75 x 5.00	O3D303	\$3,075.06
SS316L	PMMA (acrylic) / polyamide	2.61 x 3.47	O3D310	\$3,382.88
SS316L	PMMA (acrylic) / polyamide	3.75 x 5.00	O3D312	\$3,382.88

Accessories

Type	Description	Order no.	Price
	Mounting set for clamp mounting, Ø 14 mm, stainless steel	E3D103	\$72.93
	Parameter setting cable, 2 m, M12 D-coded / RJ45, cross-link	E11898	\$102.61
	Socket, M12, 2 m PUR cable, 8-pole	E11950	\$59.15
	Socket, M12, 10 m PUR cable, 8-pole	E11311	\$120.20

APP set-up for standard applications

COMMON APPLICATIONS



(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.



Detection of QR codes

Photoelectric multicode readers are ideal for identification tasks in conveying. They ensure that the right product is in the right place at the right time.



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

2D Sensors



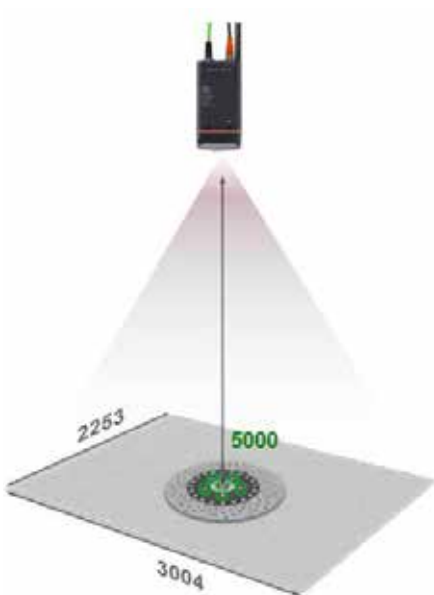
- Easy integration in the application
- Compact and robust housing
- For use as a stand-alone device
- Intuitive, user-friendly handling

In automation technology vision sensors are an integral part of assembly and manufacturing tasks as well as quality control. In a robust, industrially compatible housing, they combine lighting, lens, camera chip, evaluation and process connections for the integration in the higher-level controller.

The O2D object recognition sensor with orientation-independent contour verification solves tasks like presence and position monitoring, quality control and sorting and counting tasks. It is ideal in applications where the object's shape is repeatable and defined.

The O2V object inspection sensor is used for presence and completeness checks, position, size and quality control, and sorting tasks. It is ideal for applications where the objects vary in shape, size or shade.

COMBINABLE 2D INSPECTION OF SURFACES AND CONTOURS



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









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.



Camera / Vision solutions

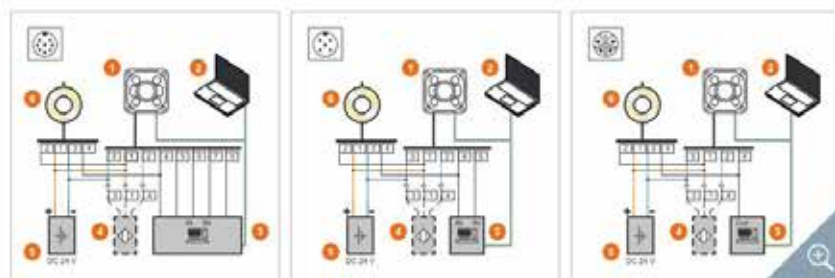
VISION SENSORS FOR RECOGNITION AND ASSESSMENT OF OBJECTS AND SCENES.

Design	Type of light	Field of view size [mm]	Pixel size [mm]	Wide Angle Lens	Standard Lens	Telephoto Lens	Price
Ethernet TCP/IP; EtherNet/IP, Operating Distance 5,000mm (max)							
	RGB-W	3,004 x 2,253	2.35	O2D502	-	-	\$2,961.43
	Infrared light	3,004 x 2,253	2.35	O2D522	-	-	\$2,961.43
	RGB-W	1,502 x 1,127	1.17	-	O2D500	-	\$2,961.43
	Infrared light	1,502 x 1,127	1.17	-	O2D520	-	\$2,961.43
	RGB-W	960 x 720	0.75	-	-	O2D504	\$2,961.43
	Infrared light	960 x 720	0.75	-	-	O2D524	\$2,961.43

Wiring and triggering

Image capture can be triggered with a binary sensor connected to the trigger input (e.g. light sensor), a command via the process interface (EtherNet/IP or TCP/IP), or continuously with a fixed frame rate.

The following connection diagrams show the wiring of the vision and trigger sensors according to the connector version:



From left to right: 8-pole A-coded, 5-pole A-coded, and 5-pole L-coded

Component overview:

- 1 O2D5xx vision sensor
- 2 PC for parameter setting
- 3 Industrial PC or PLC for evaluation and control
- 4 Binary trigger sensor
- 5 Voltage supply
- 6 Optional additional illumination

Multi-code reader with text recognition



1D Sensors



- Versatile use for quality and process control in production and logistics
- Detects and verifies text and codes alike
- High performance thanks to fast evaluation of several different codes and text passages in one image
- Reliable detection even in case of extraneous light and challenging surfaces
- Easy parameter setting on the device or via the ifm Vision Assistant

Application areas of the O2I multicode reader range from product tracking and product control to product identification. The sensor can read 1D and 2D codes regardless of their position.

Application areas of the 1D/2D code reader range from product tracking and product control to product identification. The sensor can read 1D and 2D codes regardless of their position. Even if up to 25% of the code information becomes damaged or soiled, it is still read correctly. The reader can also be used for optical character recognition (OCR), e.g. in order to identify products based on type labels or serial numbers.

Additional illumination generates a homogeneous light field - either for virtually shadow-free object illumination or for emphasising surface characteristics. The operating software allows for easy configuration of the 1D/2D code reader. The OPC server software provides an interface for integration into a higher level system. The Touch Panel PC ensures configuration, set-up and monitoring of object recognition sensors, 3D sensors, code readers and RFID readers.

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



1D/2D Multi-code Reader: 85 - 1,000 mm range

Type of light	Description	Order no.	Price
Field of view size [mm]			
red light	Standard lens, Ethernet/IP, TCP/IP	O2I500	\$3,051.74
infrared	Standard lens, Ethernet/IP, TCP/IP	O2I501	\$3,051.74









Camera/vision solutions

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

Available on request:

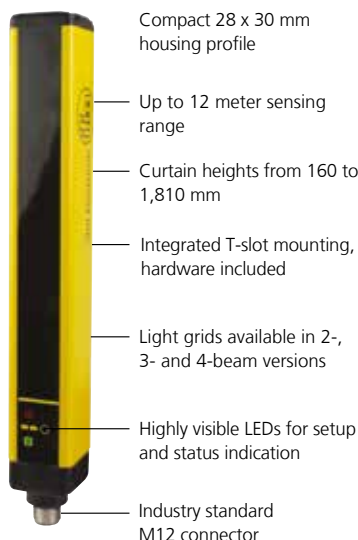


Accessories

Type	Description	Order no.	Price
	External illumination unit	O2D930	\$1,818.11
	Mounting set	E2D501	\$68.69
	External illumination unit	O2D917	\$1,417.43
	Diffuser for illumination units diffuser window ringlight	E2D202	\$395.17
	Mounting set for illumination unit mounting set ringlight / CC	E2D506	\$65.72
	Mounting set	E2D500	\$63.60
	Y splitter, adapter cable for O2I5xx, trigger sensor, 0.4 m PUR cable	EVC847	\$62.12
	Y connection cable for external illumination	EVC848	\$62.12
	Rod, 150 mm, Ø 12 mm, stainless steel	E21111	\$23.32
	Rod, 200 mm, Ø 12 mm, stainless steel	E21112	\$26.71
	Rod, 300 mm, Ø 12 mm, stainless steel	E21113	\$32.44
	Clamp linking ring, high-grade stainless steel	E21076	\$23.74
	2 m, Industrial Ethernet D-code cable (fieldbus) Green, PUR / Ni Pl brass	EVC893	\$31.16
	5 m, Industrial Ethernet D-code cable (fieldbus) Green, PUR / Ni Pl brass	EVC894	\$60.84
	Socket, M12, 2 m PUR cable, 8-pole	E80021	\$51.30
	Socket, M12, 5 m PUR cable, 8-pole	E11807	\$90.10
	Socket, M12, 10 m PUR cable, 8-pole	E11311	\$120.20

Safety light curtains & light grids

To the highest safety standard



Why choose ifm for your safety products?



- 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.



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	OY1115	\$1,823.84
	400	3	810	12	OY1125	\$2,048.77
	300	4	910	12	OY1135	\$2,273.91
Protected area width 0...4 m / 3...12 m - Type 4 / SIL3 / PLe						
	500	2	510	12	OY1145	\$2,323.10
	400	3	810	12	OY1155	\$2,690.70
	300	4	910	12	OY1165	\$3,138.87





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	\$2,554.60
	30	310	12	OY042S	\$3,074.85
	30	460	12	OY043S	\$3,514.75
	30	610	12	OY044S	\$4,024.61
	30	760	12	OY045S	\$4,510.72
	30	910	12	OY046S	\$4,999.38
	30	1060	12	OY047S	\$5,500.34
	30	1210	12	OY048S	\$5,988.79
	30	1360	12	OY049S	\$6,464.94
	30	1510	12	OY050S	\$7,377.60
	30	1810	12	OY454S	\$7,931.77

FINGER Protected area width 0...4 m / 3...12 m - Type 4 / SIL3 / PLe					
	14	160	6	OY001S	\$3,092.23
	14	310	6	OY002S	\$3,860.94
	14	460	6	OY003S	\$4,627.32
	14	610	6	OY004S	\$5,406.64
	14	760	6	OY005S	\$6,183.83
	14	910	6	OY006S	\$6,963.56
	14	1060	6	OY007S	\$7,753.69
	14	1210	6	OY008S	\$8,556.11
	14	1360	6	OY009S	\$9,323.12
	14	1510	6	OY010S	\$10,673.78
	14	1810	6	OY411S	\$4,164.32

Accessories

Type	Safety Outputs	Non-safe Outputs	Order no.	Price
Safety relays				
	Safety relay, 2 relay outputs, muting function	Relay	G2001S	\$1,184.44
	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	\$752.18







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.



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 \$42.61
	Transmitter, 10 m, 5-pole, black, PUR cable	EVC072 \$58.30
	Transmitter, 5 m, 5-pole, black, PUR cable	EVC074 \$42.61
	Transmitter, 10 m, 5-pole, black, PUR cable	EVC075 \$58.30
	Receiver, 2 m, 8-pole, black, PUR cable	E11231 \$75.26
	Receiver, 5 m, 8-pole, black, PUR cable	E11232 \$92.86
	Receiver, 10 m, 8-pole, black, PUR cable	E12169 \$95.19
	Receiver, 2 m, 8-pole, black, PUR cable	E11950 \$59.15
	Receiver, 5 m, 8-pole, black, PUR cable	E11807 \$90.10
	Receiver, 10 m, 8-pole, black, PUR cable	E11311 \$120.20



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	\$109.60
	36 x 26 x 13	5 mm	M8, 4-pin, integrated	2 x NO	MN202S	\$109.60
	36 x 26 x 13	5 mm	M12, 0.1 m, PVC	2 x NO	MN203S	\$109.60
	36 x 26 x 13	5 mm	6 m, PVC	2 x NO / 1 x NC	MN205S	\$119.99
	88 x 25 x 13	8 mm	2 m, PVC	2 x NO	MN500S	\$112.36
	88 x 25 x 13	8 mm	M8, 4-pin, integrated	2 x NO	MN502S	\$112.36
	88 x 25 x 13	8 mm	M12, 0.1 m, PV	2 x NO	MN503S	\$112.36
	88 x 25 x 13	8 mm	6 m, PVC	2 x NO / 1 x NC	MN505S	\$122.75



- 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	\$239.56
	72 x 25 x 18	12 mm	M12, 8-pole	uniquely coded	•	MN701S	\$252.07
	72 x 25 x 18	12 mm	M12, 8-pole	codable	•	MN702S	\$252.07

(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






Type	Size mm	Enable zone	Order no.	Price
Safety sensors				
 GG711S	M12, L = 60	1...6 mm, nf	GF854S	\$198.43
	M18, L = 60	1...7.5 mm, nf	GG855S	\$223.02
	M18, L = 60	1...8 mm, nf	GG711S	\$242.74
	M18, L = 60	1...11.5 mm, nf	GG854S	\$223.02
	M30, L = 65	1...14.5 mm, nf	GI855S	\$229.81
	M30, L = 65	1...21.5 mm, nf	GI854S	\$223.87

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	\$434.39
	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	\$752.18
	Safety relay, 2 relay outputs, muting function	Relay	G2001S	\$1,184.44

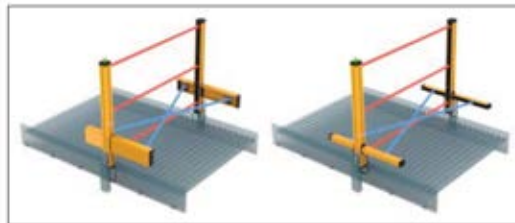
LIGHT GRID WITH INTEGRATED MUTING - AVAILABLE ON REQUEST



T muting for goods to be passed in or out

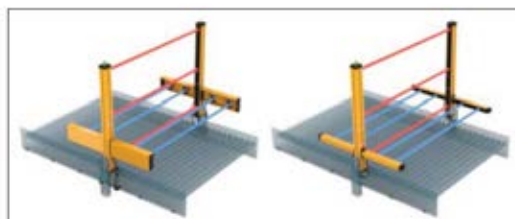
2 photoelectric sensors positioned crosswise

Both sensors must be interrupted simultaneously. The goods should therefore have an appropriate width and be positioned in the centre.



4 photoelectric sensors positioned in parallel

The sensors must be interrupted according to a predetermined sequence. The goods should be of a sufficient length to ensure that all 4 sensors are temporarily interrupted. Their width and position do not matter.



Configurable LED signal light towers

For more insights:



Signalling, indication and perfect visibility



COMPACT SIGNAL LAMPS

- 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



Function	Buzzer	Feedback button	IP rating	Order no.	Price
1-segment signal lamp · M12 connectors, Digital inputs / IO-Link					
IO-Link	-	-	IP67	DV2120	\$292.14
IO-Link	-	Yes	IP67	DV2121	\$340.68
IO-Link	max. 90 dB	-	IP65	DV2130	\$340.68
IO-Link	max. 90 dB	Yes	IP65	DV2131	\$389.02

3-segment signal lamp · M12 connectors, Digital inputs / IO-Link					
IO-Link	-	-	IP67	DV1300	\$499.47
IO-Link	max. 90 dB	Yes	IP65	DV1310	\$596.14
IO-Link	-	-	IP67	DV2300	\$477.00
IO-Link	max. 90 dB	Yes	IP65	DV2310	\$550.56

Function	Inputs	Dimensions Ø x h [mm]	IP rating	Order no.	Price
5-segment signal lamp · M12 connectors, Digital inputs / IO-Link					
Mounting base	5	70 x 344	IP 65	DV1500	\$780.80
Mounting base and siren	5	70 x 384	IP 54	DV1510	\$883.40
-	5	70 x 244	IP 65	DV1520	\$691.33
Siren	5	70 x 284	IP 54	DV1530	\$793.73

5-segment signal lamp · M12 connectors, IO-Link					
Mounting base	5	70 x 344	IP 65	DV2500	\$755.57
Mounting base and siren	5	70 x 384	IP 54	DV2510	\$857.54
-	5	70 x 244	IP 65	DV2520	\$665.89
Siren	5	70 x 284	IP 54	DV2530	\$768.08



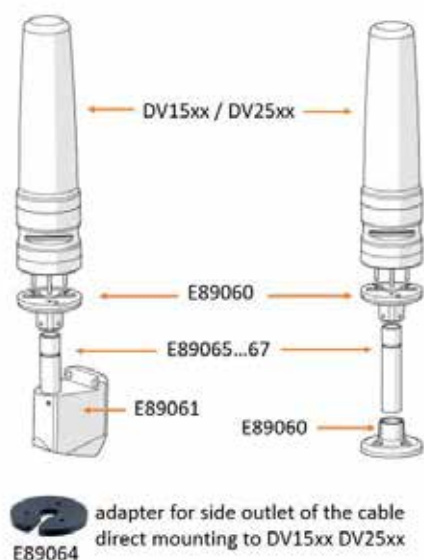


Configurable LED signal light towers

FIVE SEGMENT SIGNAL LAMP



DV15xx / DV25xx



Accessories

Type	Description	Order no.	Price
Assembly			
	Mounting base for pole mount, 22 mm / Ø 22 mm	E89080	\$63.81
	Standard bracket for pole mounting	E89060	\$32.01
	Wall bracket for pole mounting	E89061	\$73.99
	Spacer pole 100 mm	E89065	\$25.86
	Spacer pole 300 mm	E89066	\$35.62
	Spacer pole 800 mm	E89067	\$61.06
M12 sockets 4-pole (0.34mm² sensor) IP69K, 4A max			
	2 m black, PUR cable	EVC001	\$32.01
	5 m black, PUR cable	EVC002	\$37.31
	10 m black, PUR cable	EVC003	\$46.00
M12 sockets 5-pole (0.34mm² sensor) IP69K, 4A max			
	2 m black, PUR cable	EVC070	\$34.34
	5 m black, PUR cable	EVC071	\$42.61
	10 m black, PUR cable	EVC072	\$58.30
M12 sockets 8-pole (0.25mm² sensor) IP69K, 4A max			
	5 m black, PUR cable	E12166	\$66.57
	10 m black, PUR cable	E12167	\$95.19
M12 jumper 8-pole (0.25mm² sensor) IP69K, 4A max			
	5 m black, PUR cable	E11230	\$108.12
	10 m black, PUR cable	E12360	\$149.67
	Linerecorder Sensor, software for parameter setting and set-up of IO-Link sensors	QA0011	\$259.06

FLEXIBLE LED STRIP FOR ILLUMINATION AND SIGNALING



Type	Description	Order no.	Price
	LED-Stripe-RGBW-250mm-IP68	DV1001	\$440.11
	LED-Stripe-RGBW-500mm-IP68	DV1002	\$523.43
	LED-Stripe-RGBW-750mm-IP68	DV1003	\$606.96
	LED-Stripe-RGBW-1000mm-IP68	DV1004	\$690.27

Process values from sensors at a glance

Application guides

EVALUATION FOR ANALOGUE SIGNALS



Nominal voltage [V]	Inputs	Outputs	Order no.	Price
2-channel analogue threshold relay for analogue standard signals				
110...240 AC, 24 DC	2 x 0/4...20 mA transmitters	2x switching, 1x 0/4...20 mA	DL2503	\$797.54
110...240 AC, 24 DC	2 x PNP	1 x relay, 1 x transistor	DL0203	\$408.31
Power supply and signal evaluation				
110...240 AC, 24 DC	2x PNP/NPN	2x relay	DN0220	\$361.46

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	\$857.54
24 DC	2 x analogue	4	DX2055	\$803.48
Multifunctional analogue display				
115 / 230 AC 18...30 DC	2 x analogue	-	DX2041	\$669.07
115 / 230 AC 18...30 DC	2 x analogue	4	DX2042	\$729.92
Multifunctional display: speed, time, counter				
115 / 230 AC 24 DC	2 x pulse	4 transistor, 1x analogue	DX2022	\$661.86

IO-LINK MASTER DISPLAY



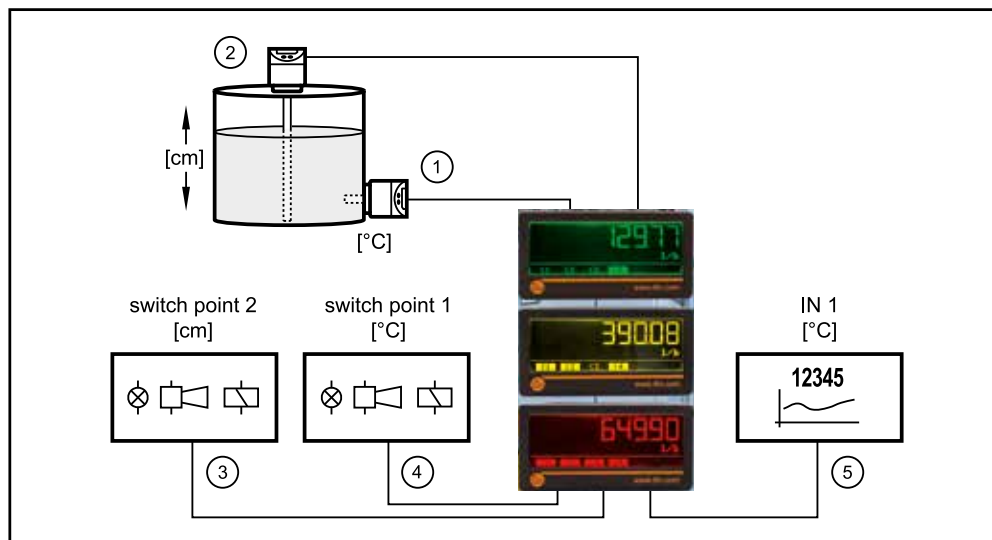
Type	Length	Order no.	Price
128 x 128 resolution, 1.44" TFT LED display			
IO-Link display · Connection to master · Assignment of the values displayed by the controller ·		E30391	\$266.70
IO-Link inline display · Connection between master and sensor Visualisation of the values of the connected sensor		E30430	\$314.18
IO-Link display · Shows all sensor process values connected to a master		E30443	\$417.85
Accessories			
Type	Length	Order no.	Price
DIN rail clip		E30429	\$19.08

Application diagrams

FILTER MONITORING SYSTEM FOR INDUSTRIAL PLANTS



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]

Pressure sensors and mounting accessories

Selection Guide



PG27 / PI27 / PI22 Series
Pressure sensors with display

Flush diaphragm for viscous and hygienic applications



PM17 / PM15 Series
Pressure sensors without display

Flush diaphragm for viscous and hygienic applications



PN / PE / PG24 / PQ Series
Pressure sensors with display

For industrial applications



PA / PK / PL / PP / PT / PU / PV Series
Pressure sensors without display

For industrial applications



PT / PU Series
Pressure sensors

For mobile applications



Connection accessories



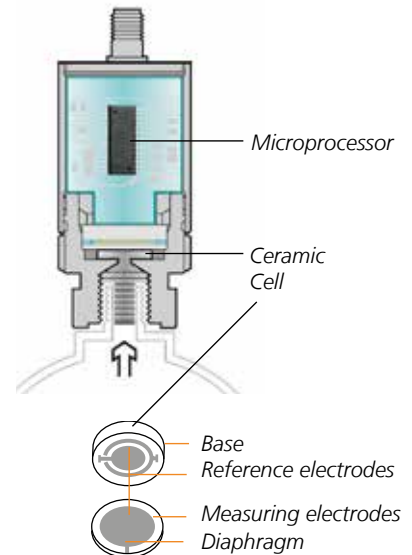
Pressure Sensors

IFM CERAMIC MEASURING CELL - ADVANCED TECHNOLOGY

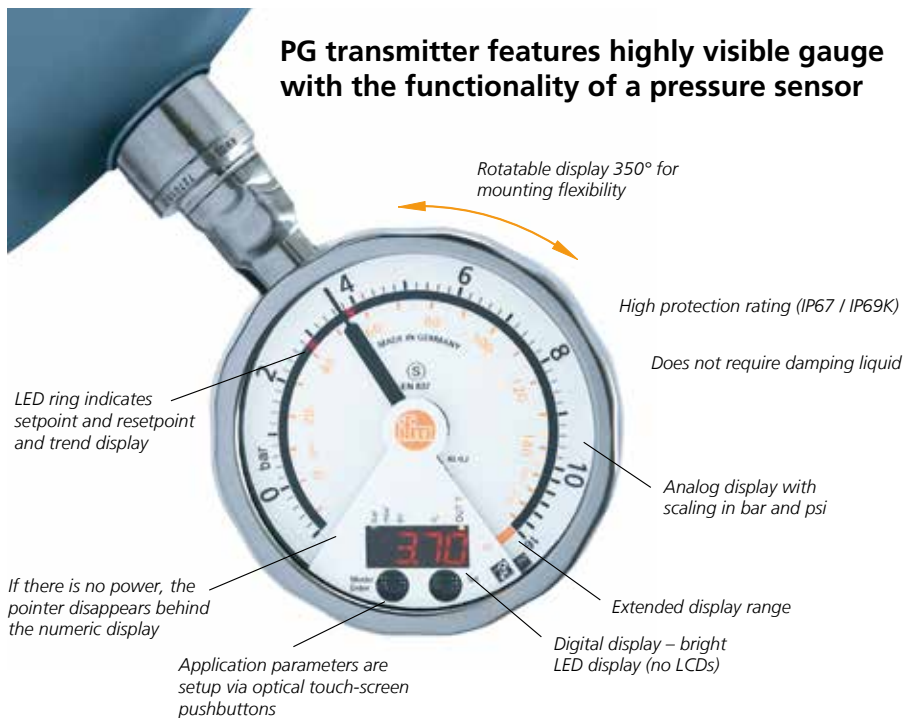
PN Series



PA & PP Series



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



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.



Hygienic Pressure Sensors


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	\$941.92
	0...25	-1...25	160	PM1503	\$941.92
	0...16	-1...16	110	PM1514	\$941.92
	0...10	-1...10	75	PM1504	\$941.92
	0...6	-1...6	50	PM1515	\$941.92
	0...4	-1...4	40	PM1505	\$941.92
	0...2.5	-0.125...2.5	30	PM1506	\$941.92

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	\$1,059.36
	0...250	0...250	600	PG2451	\$1,030.11
	0...100	0...100	300	PG2452	\$1,030.11
	0...25	-1...25	100	PG2453	\$1,030.11
	0...10	-1...10	50	PG2454	\$1,030.11
	0...4	-1...4	30	PG2455	\$1,030.11
	0...2.5	-0.125...2.5	20	PG2456	\$1,030.11
	0...1	-0.05...1	10	PG2457	\$1,059.36
	0...250 mB	-12.5...250 mB	6	PG2458	\$1,059.36
	0...100 mB	-5...100 mB	4	PG2489	\$1,059.36


PM SERIES - G1 CONNECTION

IP 67
IP 68
IP 69 K

High-grade stainless steel

For process adapters and accessories see pages 87




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	\$973.93
	0...16	-1...16	75	PM1714	\$973.93
	0...10	-1...10	50	PM1704	\$973.93
	0...6	-1...6	30	PM1715	\$973.93
	0...4	-1...4	30	PM1705	\$973.93
	0...2.5	-0.125...2.5	20	PM1706	\$973.93
	0...1.6	-0.1...1.6	15	PM1717	\$973.93
	0...1	-0.05...1	10	PM1707	\$1,002.76
	-1...1	-1...1	10	PM1709	\$1,002.76
	0...250 mB	-0.0125...0.25	6	PM1708	\$1,002.76
	0...100 mB	-0.005...0.1	4	PM1789	\$1,002.76

Hygienic Pressure Sensors

PI SERIES - G1 CONNECTION

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



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	\$1,221.97	PI2793	\$1,355.53
	0...16	-1...16	PI1714	\$1,221.97	PI2714	\$1,355.53
	0...10	-1...10	PI1704	\$1,221.97	PI2794	\$1,355.53
	0...6	-1...6	PI1715	\$1,221.97	PI2715	\$1,355.53
	0...4	-1...4	PI1705	\$1,221.97	PI2795	\$1,355.53
	0...2.5	-0.124...2.5	PI1706	\$1,221.97	PI2796	\$1,355.53
	0...1.6	-0.1...1.6	PI1717	\$1,221.97	PI2717	\$1,355.53
	0...1	-0.05...1	PI1707	\$1,258.86	PI2799	\$1,395.17
	-1...1	-1...1	PI1709	\$1,258.86	PI2797	\$1,395.17
	0...400 mB	-50...400 mB	PI1718	\$1,258.86	-	-
	0...250 mB	-12...250 mB	PI1708	\$1,258.86	PI2798	\$1,395.17
	0...100 mB	-5...100 mB	PI1789	\$1,258.86	PI2789	\$1,395.17


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					
	0...25	-1...25	100	PG2793	\$1,359.13
	0...10	-1...10	50	PG2794	\$1,359.13
	0...4	-1...4	30	PG2795	\$1,359.13
	0...25	-0.124...2.5	20	PG2796	\$1,359.13
	-1...1	-1...1	10	PG2799	\$1,396.23
	0...1	-0.05...1	10	PG2797	\$1,396.23
	0...250 mB	-12.4...250 mB	10	PG2798	\$1,396.23
	0...100 mB	-5...100 mB	4	PG2789	\$1,396.23

PI SERIES - FOR HIGH TEMPERATURE APPLICATIONS

For process adapters and accessories see pages 87



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	\$1,658.05
	0...10	-1...10	50	PI2204	\$1,658.05
	0...4	-1...4	30	PI2205	\$1,658.05
	0...2.5	-0.0124...0.25	20	PI2206	\$1,658.05
	-1...1	-1...1	10	PI2209	\$1,706.18
	0...1	-0.05...1	10	PI2207	\$1,706.18

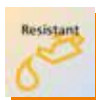


Pressure sensors type PN & PY

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	\$761.93
Stainless steel chamber	G 1/4" female	0...400	800	PN7070	\$761.93
Stainless steel chamber	G 1/4" female	0...250	500	PN7071	\$740.09


Ceramic capacitive	G 1/4" female	0...100	300	PN7092	\$740.09
Ceramic capacitive	G 1/4" female	0...25	150	PN7093	\$740.09
Ceramic capacitive	G 1/4" female	-1...10	75	PN7094	\$740.09
Ceramic capacitive	G 1/4" female	0...2,5	20	PN7096	\$740.09
Ceramic capacitive	G 1/4" female	0...1	10	PN7097	\$761.93
Ceramic capacitive	G 1/4" female	-1...1	20	PN7099	\$761.93

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	\$917.11
Stainless steel chamber	G 1/4" female	0...400	800	PN2070	\$917.11
Stainless steel chamber	G 1/4" female	0...250	500	PN2071	\$890.19

Ceramic capacitive	G 1/4" female	0...100	300	PN2092	\$890.19
Ceramic capacitive	G 1/4" female	0...25	150	PN2093	\$890.19
Ceramic capacitive	G 1/4" female	-1...10	75	PN2094	\$890.19
Ceramic capacitive	G 1/4" female	-0.125...2,5	20	PN2096	\$890.19
Ceramic capacitive	G 1/4" female	-0.05...1	10	PN2097	\$917.11
Ceramic capacitive	G 1/4" female	-1...1	10	PN2099	\$917.11
Ceramic capacitive	G 1/4" female	-0.5...0.5	10	PN2169	\$917.11

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



Type	Description	Order no.	Price
	Damping screw, for surge pressure protection. For PN / PA sensors with G1/4 fittings	E30419	\$21.41

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	\$2,737.77
	Clamp fitting	0...600	800	1200	PY9060	\$1,926.44



Pressure sensors type PT, PV & PP


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	\$258.00
	0...400	1,000	PT5400	\$258.00
	0...250	625	PT5401	\$250.58
	0...160	400	PT5412	\$250.58
	0...100	250	PT5402	\$250.58
	0...40	100	PT5443	\$250.58
	0...25	65	PT5403	\$250.58
	0...16	40	PT5414	\$250.58
	0...10	25	PT5404	\$250.58
	0...6	15	PT5415	\$250.58
	-1...10	25	PT5494	\$250.58

PM SERIES - G1/4 FLUSH CONNECTION



Type	Measuring range Relative pressure [bar]	P _{overload} max. (static) [bar]	P _{bursting} min. [bar]	Order no.	Price
G 1/4 male sealing cone, 4...20 mA, IO-LINK					
	0...400	1,000	1,700	PL5400 ☺	\$539.75
	0...250	625	1,200	PL5401 ☺	\$539.75
	0...160	400	1,100	PL5412 ☺	\$539.75
	0...100	250	1,000	PL5402 ☺	\$539.75
	0...60	150	900	PL5423 ☺	\$539.75


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 Relative pressure [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 ☺	\$336.02
	0...400	1,000	1,700	PV8000 ☺	\$336.02
	0...250	625	1,200	PV8001 ☺	\$327.12
	0...100	250	1,000	PV8002 ☺	\$327.12
	0...60	150	900	PV8023 ☺	\$327.12
	-1...25	65	600	PV8003 ☺	\$327.12
	-1...10	25	300	PV8004 ☺	\$327.12

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 ☺	\$497.14
	0...250	850	PP7551 ☺	\$483.15
	0...100	650	PP7552 ☺	\$483.15
	0...25	350	PP7553 ☺	\$483.15
	0...10	150	PP7554 ☺	\$483.15




Pressure sensors type PA, PT, PK & PQ

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	\$544.63
	0...2.5	20	PA3026	\$544.63
	-1...0	10	PA3029	\$560.32
	0...1	10	PA3027	\$560.32
	0...0.25	6	PA3028	\$613.10
	0...0.1	4	PA3589*	\$618.62*

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	\$280.69
	0...1.6	3.2	PT0517	\$272.63

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	\$409.37
	0...250	400	PK7521	\$398.14
	0...100	200	PK7522	\$398.14
	0...10	25	PK7524	\$398.14
M12 connector · output adjustable. 2 x NO/NC, PNP (complimentary)				
	0...400	600	PK6520	\$409.37
	0...250	400	PK6521	\$398.14
	0...100	200	PK6522	\$398.14
	0...25	60	PK6523	\$398.14
	0...10	25	PK6524	\$398.14

PQ SERIES - PRESSURE TRANSMITTER & SWITCH

Pressure sensors type PQ
Ideal for measuring compressed air.
Two-colour LED display for immediate status detection.
Moisture-proof silicon measuring cell.



Type	Measuring range Relative pressure [bar]	P _{overload} max. (static) [bar]	Order no.	Price
M8 connector · output function 1 x NO/NC programmable + 1 x 4...20 mA output				
	-1...1	20	PQ3809	\$347.26
	-1...10	20	PQ3834	\$337.29
M8 connector · output function 2 x NO/NC programmable				
	-1...1	20	PQ7809	\$289.17
	-1...10	20	PQ7834	\$280.48



Pressure sensor mounting accessories

Process adapters



Adapter accessories



Process adapters



Accessories



Device connection	Process connection	Sealing	For sensor type	Order no.	Price
High-grade stainless steel adapter (316L/1.4435) for hygienic applications					
G 1 male Aseptoflex Vario	① Clamp 1 - 1.5"	sealing ring	PG27xx, PI27xx	E33201	\$113.42
		sealing ring		E33208	\$122.11
		metal-to-metal		E33701	\$100.06
	Clamp 2"	sealing ring		E33202	\$132.71
		sealing ring		E33209	\$140.34
		metal-to-metal		E33702	\$119.78
	② pipe fitting DN40 (1.5")	sealing ring		E33212	\$113.42
		metal-to-metal		E33712	\$105.79
	pipe fitting DN50 (2")	sealing ring		E33213	\$132.71
		metal-to-metal		E33713	\$119.78
	③ G 1/2	sealing ring		E30131	\$135.04
High-grade stainless steel welding adapters for hygienic applications					
G 1 male Aseptoflex Vario	welding adapter D50	sealing ring	PG27xx, PI27xx	E30122	\$91.37
				E30130	\$116.39
G 1 male Aseptoflex Vario sealing cone	welding mandrel			E30435	\$85.65
Adapter accessories for hygienic applications					
G 1 male Aseptoflex Vario	sealing plug	sealing ring	PG27xx, PI27xx	E30128	\$100.28
	FKM O-ring			E30123	\$9.96
	PEEK ring			E30124	\$37.52
Device connection	Process connection	Material		Order no.	Price
Adapters for industrial applications -For sensor type PN, PA with internal thread					
G 1/4	G 1/4	high-grade stainless steel (316L/1.4404) FKM		E30143	\$38.80
G 1/4	G 1/2	stainless steel (303/1.4305), FPM (Viton)		E30050	\$42.40
G 1/4	G 1/2	high-gr. stainl. steel (316L/1.4404) FPM (Viton)		E30002	\$54.91
G 1/4	M20 x 1.5	stainless steel (303/1.4305), FPM (Viton)		E30010	\$40.70
G 1/4	1/4" NPT	high-grade stainless steel (316Ti/1.4571)		E30058	\$49.82
G 1/4	1/2" NPT	high-grade stainless steel (316L/1.4404)		E30133	\$58.09
Description			For sensor type	Order no.	Price
Accessories for industrial applications					
Damping screw for PN with G 1/4 internal thread			PN	E30419	\$21.41
Protective cover				E30420	\$10.39
Angle bracket				E30421	\$14.20
Damping screw for sensors with G 1/4 external thread			PN, PK, PA35xx	E30057	\$13.78
Syphon G 1/4				E30140	\$52.36
Syphon G 1/2			PG24	E30141	\$86.71
Protective cover			PK	E30094	\$11.02
Cable clamp fastener				E30399	\$52.79
Filter element			PS	E30400	\$14.42
Splitter box with ventilation and terminal block				E30401	\$194.62
DIN rail clip			PQ	E37340	\$13.78
Adapter R 1/8 - R 1/8 rotatable				E37350	\$44.52

Level sensors and mounting accessories

Selection Guide

Point
level
detection



LMT/LMC Series
Impedance spectroscopy level
switch

Alternative to
vibrating forks
Suppression of residues
and foam



LI Series
Capacitive switch

Industrial level switch
replaces floats



KG/KI/KQ Series
Capacitive switch non-contact

For the detection
through non-metallic
tank walls



LK/LT Series
Capacitive level sensor

For applications
on hydraulic and
coolant tanks



LR Series
Radar level sensors

For industrial and
hygienic applications



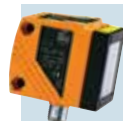
PG/PI/PA/PS/PN Series
Hydrostatic level transmitter

For industrial and
hygienic applications
on tanks and in free-
flowing waterways



UGT/UIT Series
Ultrasonic level sensor

For long distances and
difficult surfaces



OID Laser measurement sensor

For long distances



PS Series submersible pressure

For inground tanks

Continuous
level
measurement



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	\$443.50
G 1/2	38	-20...100	LMT102	\$465.76
G 1/2	153	-20...100	LMT104	\$541.24
G 1/2	253	-20...100	LMT105	\$551.20
M12 connection · output function 2 x NO/NC complimentary (viscous media and powders)				
G 1/2	11	-40...100	LMT110	\$443.50
G 1/2	11	-40...100	LMT121	\$443.50

Accessories

Type	Description	Order no.	Price
	Screw-in adapter, G 1/2 female – G 3/4 male	E43302	\$79.29
	Screw-in adapter, G 1/2 female – G 1 male	E43303	\$143.52
	Screw-in adapter, G 1/2 female – 3/4 NPT	E43313	\$89.46
	Aseptoflex Vario adapter Clamp 1-1.5" O-ring EPDM*	E33401	\$105.15
	Aseptoflex Vario adapter Clamp 2" O-ring EPDM*	E33402	\$105.15
	Welding adapter for process sensors G1/2-welding spherical	E30055	\$78.65

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*.

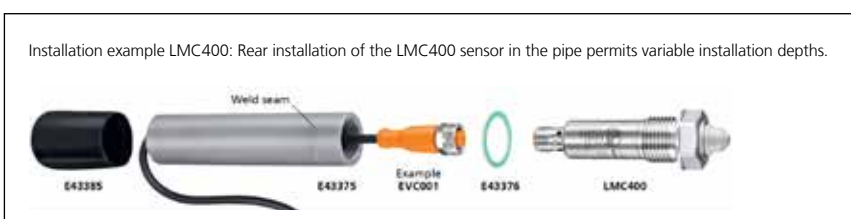
Complementary switching outputs.



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	\$314.40
G 1/2	21	-25...100	LMC400	\$314.40
1/2 NPT	34	-25...100	LMC500	\$314.40
Applications: oils, oil-based media M12 connector · output function NO/NC complementary				
G 1/2	12	-25...100	LMC110	\$314.40
1/2 NPT	34	-25...100	LMC510	\$314.40

Accessories

Type	Description	Order no.	Price
	Welding adapter, G 1/2, Ø 26.4 mm	E43375	\$27.35
	Flat seal, 26.5 x 21.3 x 1.5 mm	E43376	\$8.90
	Adapter, process connection G 1A	E43383	\$109.39





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)	Temperature [°C]	Output	Order no.	Price
Hydraulic level probe for oil or water					
	132	-25...85	2 DO	LI5131	\$295.10
	273	-25...85	2 DO	LI5132	\$311.64
	481	-25...85	2 DO	LI5133	\$327.96
	737	-25...85	2 DO	LI5134	\$344.71

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	\$983.26
	262 mm	0...70 (90 for 1 hr)	4 x DO	LT8022	\$938.10
	472 mm	0...70 (90 for 1 hr)	4 x DO	LT8023	\$990.46
	728 mm	0...70 (90 for 1 hr)	4 x DO	LT8024	\$1,043.04

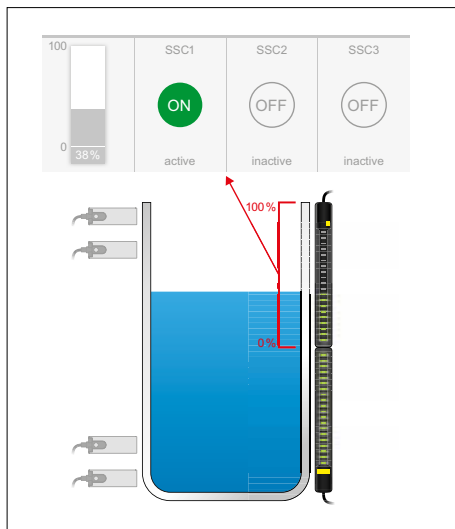
Accessories

Type	Description	Order no.	Price
Mounting accessories			
	Mounting clamp for level sensors Ø 16 mm	E43000	\$9.75
	Mounting clamp for level sensors Ø 16 mm	E43016	\$34.98
Mounting adapters			
	Mounting adapter, G 3/4, stainless steel	E43003	\$87.56
	Installation adapter for level sensors, D16, stainless steel	E43004	\$95.40
	Flange plate for level sensors, 65-80 mm, anodised aluminium	E43006	\$78.44



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	\$509.86
	18-30 VDC	-20...80°	IP67	0.1m cable, M12 connector, 5-pole	KQ1001	\$509.86

Accessories

Type	Description	Order no.	Price
	Mounting adapter for flat surfaces	E12675	\$48.97
	Mounting adapter for pipes	E12676	\$46.43
	Surface mount tape for KQ10	E12677	\$93.28
	PA cable tie, 760mm long (5 piece pack)	E10880	\$12.72
	2m, Black, PUR jumper, 5-pole	EVC058	\$66.36
	5m, Black, PUR jumper, 5-pole	EVC059	\$76.74

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
PerformanceLine · M12 connector · 3 wires, IO-Link Com 2						
48 x 20 x 14	PNP	12 nf	PBT	cable 2 m	KQ6002	\$179.99
48 x 20 x 7	PNP	12 nf	PBT	cable 2 m	KQ5100	\$105.58
Connection cable with M12 connector · 3-wire						
48 x 20 x 14	PNP	12 nf	PBT	M12	KQ6005	\$203.94



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.



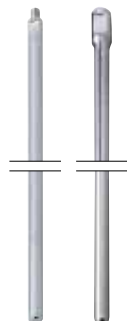
LR type level transmitter

For industrial applications.

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

Protection rating IP 69K.

Easily adjustable via IO-Link.



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



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

*Note: for use with Hygienic probes



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	\$631.76
G 3/4	2 Sw points	-	IP69k	LR7020	\$860.30
G 3/4	4 Sw points	4 Digit LED	IP67	LR8000	\$724.19
G 3/4	4 Sw points	-	IP69k	LR8020	\$877.89
G 3/4	1 Sw, 1 analogue	4 Digit LED	IP67	LR3000	\$741.79
G 3/4	1 Sw, 1 analogue	-	IP69k	LR3020	
M12 connector · I/O Link Programmable, SS316L					
G 3/4	1 Sw, 1 analogue	-	IP69k	LR9020	\$747.30
G 3/4	1 Sw, 1 analogue	4 Digit LED	IP69k	LR2050	\$1,159.85
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	\$1,689.85

Accessories

Standard Sensor. Probes	Order no.	Price	Hygienic Sensor. Probes	Order no.	Price
Industrial LR level sensor probes			Hygienic LR2750 level sensor probes		
240 mm	E43203	\$35.62	150 mm	E43345	\$116.81
450 mm	E43204	\$50.24	300 mm	E43346	\$140.56
700 mm	E43205	\$66.36	500 mm	E43340	\$173.63
1,000 mm	E43207	\$93.92	700 mm	E43347	\$202.25
1,200 mm	E43208	\$112.15	1,000 mm	E43341	\$236.17
1,400 mm	E43209	\$132.71	1,500 mm	E43348	\$268.18
1,600 mm	E43210	\$150.94	-	-	-
2,000 mm	E43353 *	\$199.49	2,000 mm	E43342	\$315.46

*Only for LR2050

Coaxial Tubes

Industrial LR level sensor probes	Hygienic LR2750 level sensor probes
240 mm E43211 \$132.71	1,200 mm E43334 \$232.35
450 mm E43212 \$150.52	1,400 mm E43216 \$275.39
700 mm E43213 \$170.66	1,600 mm E43217 \$315.24
1,000 mm E43214 \$196.95	

Description	Order no.	Price
Flange plate, LR 65-80, stainless steel 303	E43202	\$80.77
G 3/4" Welding adaptors, ø50mm	E30009	\$74.41
Sealing plug (FDA G1)	E30128	\$100.28
Aseptoflex Vario adapter Clamp 1-1.5" O-ring EPDM*	E33201	\$113.42
Aseptoflex Vario adapter Clamp 2" O-ring EPDM*	E33202	\$132.71



Radar sensor

DESIGNED FOR F&B, WATER TREATMENT APPLICATIONS*



- Continuous level monitoring
- 10m range, high accuracy
- Polished stainless steel housing, sealed to IP69K
- Designed for CIP/SIP applications

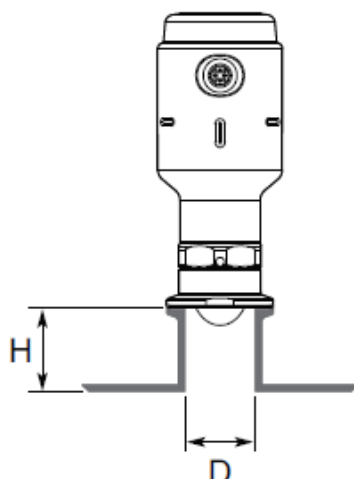
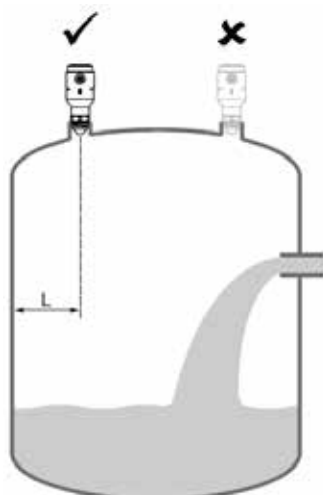


Type	Measuring Range [m]	Outputs	Temperature [°C]	IP Rating	Order no.	Price
Designed for F&B, water treatment enclosed tank applications						
	10m (15m possible)	IO-Link, 4...20 mA binary switch	-40°C...80°C	IP69k	LW2720	\$3,011.67
Designed for F&B, water treatment open air applications						
	10m (15m possible)	IO-Link, 4...20 mA binary switch	-40°C...80°C	IP69k	LW2120	\$2,645.76



Accessories

Description	Order no.	Price
Weld socket Ø50 mm – G 1 Aseptoflex Vario, with leakage port	E30130	\$116.39
Tri-clamp DN25...DN40 (1...1.5") – G 1 Aseptoflex Vario, with leakage port	E33208	\$122.11
Tri-clamp DN50 (2") – G 1 Aseptoflex Vario, with leakage port	E33209	\$140.34



Installation guidelines

Distance to Tank Wall (L): 8 in. (200 mm), recommended ½ of tank radius

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







Submersible pressure transmitters type PS

PS SENSORS



Measuring range relative pressure [bar]	Output	Cable [m]	Order no.	Price
For high resistance to media, CE approval				
0...0.25	4...20 mA	FEP, 10 m	PS4408	\$1,419.55
0...0.25	4...20 mA	PUR, 5 m	PS3208	\$946.58
0...0.6	4...20 mA	PUR, 15 m	PS3427	\$1,075.05
0...0.6	4...20 mA	FEP, 10 m	PS4407	\$1,419.55
0...0.6	4...20 mA	FEP, 20 m	PS4506	\$1,598.27
0...1	4...20 mA	FEP, 15 m	PS4417	\$1,508.80
0...1	4...20 mA	FEP, 30 m	PS4607	\$1,776.56
For hazardous areas, CE, Ex, GL approvals				
0...1	4...20 mA	FEP, 15 m	PS317A	\$1,963.76

Accessories






Description	Order No.	Price
 Cable clamp fastener	E30399	\$52.79
 Filter element for submersible pressure transmitters	E30400	\$14.42
 Splitter box	E30401	\$194.62
 Additional weight for submersible pressure transmitters	E30402	\$118.93

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	\$760.23
200...10,000	2	DC 1 x PNP	O1D101	\$760.23
200...10,000	2	PNP + 4...20 mA	O1D105	\$760.23
300...6,000	1	PNP + 4...20 mA	O1D155	\$760.23
200...10,000	2	PNP + 4...20 mA, IO-Link prog	O1D120	\$760.23
Level detection				
200...10,000	2	PNP + 4...20 mA	O1D300	\$767.86

Accessories

Description	Order No.	Price
 O1D Alignment + Mounting adapter SS316L ø12mm	E2D101	\$58.51
 O1D Hygienic Mounting adapter SS316L/G1	E21224	\$312.91
 O1D Hygienic Tri-Clamp adapter, SS316L, clamp 1-1.5"	E33601	\$133.98
 O1D Protective window: PMMA transparent	E21133	\$61.69
 O1D Hygienic Weld adapter, SS316L, G1 ø50mm	E30013	\$84.38





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	\$433.96
M18 x 60mm	300	PNP	IO-Link	UGT524	\$391.35
M18 x 60mm	1,200	4...20 mA	Wire	UGT507	\$433.96
M18 x 60mm	1,200	PNP, prog	IO-Link	UGT526	\$391.35
Diffuse sensor · 4-wire DC, 4-pole					
M18 Cube	300	PNP + 4...20 mA	Button	UGT580	\$433.96
M18 Cube	300	PNP	Button / IO-Link	UGT592	\$433.96
M18 Cube	1,200	PNP + 4...20 mA	Button	UGT584	\$433.96
M18 Cube	1,200	NPN + 4...20 mA	Button	UGT590	\$433.96
M18 Cube	1,200	PNP, prog	Button / IO-Link	UGT594	\$433.96
Diffuse sensor · 4-wire DC, 4-pole					
M18 x 98mm	2,200	2 x PNP	Button, IO-Link	UGT512	\$523.64
M18 x 98mm	2,200	PNP + 4...20 mA	Button, IO-Link	UGT513	\$523.64
M18 x 98mm	2,200	PNP + 0...10 V	Button, IO-Link	UGT514	\$523.64
M18 x 98mm	2,200	NPN + 4...20 mA	Button	UGT519	\$523.64
Diffuse sensor · 4-wire DC, 4-pole					
M30 X 1.5	3,500	2 x PNP	Button, IO-Link	UIT500	\$687.94
M30 X 1.5	3,500	PNP + 4...20 mA	Button, IO-Link	UIT501	\$762.78
M30 X 1.5	6,000	PNP + 4...20 mA	Button, IO-Link	UIT504	\$888.07
M30 X 1.5	8,000	PNP + 4...20 mA	Button, IO-Link	UIT507	\$1,038.16
Diffuse sensor · 4-wire DC, 4-pole - stainless steel, IP69K					
M30 X 1.5	2,500	2 x PNP	IO-Link	UIT300	\$987.92
M30 X 1.5	2,500	PNP + 4...20 mA	IO-Link	UIT301	\$1,033.29

Accessories

Type	Description	Order no.	Price
	Mounting set, Ø 18.5 mm clamp mounting, high-grade stainless steel (M10 cap screw)	E20870	\$38.16
	Mounting set, Ø 30.2 mm clamp mounting, high-grade stainless steel	E20874	\$38.16
	Mounting rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	E20938	\$14.84
	Angle bracket for type M30, stainless steel	E10737	\$8.69
	Sound tube, M18, POM	E23000	\$57.24
	Sound tube, M30, POM	E23007	\$63.39
	Sound deflection angle for sensors with a range of ≤ 1,2 m, stainless steel	E23001	\$51.09
	Sound deflection angle for sensors with a range of ≤ 2,2 m, stainless steel	E23002	\$56.60

Flow sensors and mounting accessories

Selection Guide

Absolute flow measurement



**SM Series
Magnetic-inductive
Flow meter**

For waterbased & conductive media



**SV Series
Vortex Flow meter**

For water



**SBY/SBG/SBT/SBU Series
Mechatronic Flow meter**

For Oil, Gylcol & coolant



**SU Series
Ultrasonic Flow meter**

For low viscosity, non-conductive media



**SD Series
Compressed air meters**

For air, Co2 & Nitrogen

Relative flow measurement



**SI/SF/SR/SN Series
Thermal Flow sensors**

For any flowing media, liquid or gas



**SA Series
Thermal Flow/Temperature sensors**

For any flowing media, liquid or gas

Mounting Accessories



Flow sensors type SM

MAGNETIC FLOW METER - FOR WATERBASED MEDIA



Measuring range Flow [l/min]	Process Connection	Medium Temperature [C]	Order no.	Price
---------------------------------	-----------------------	---------------------------	--------------	-------

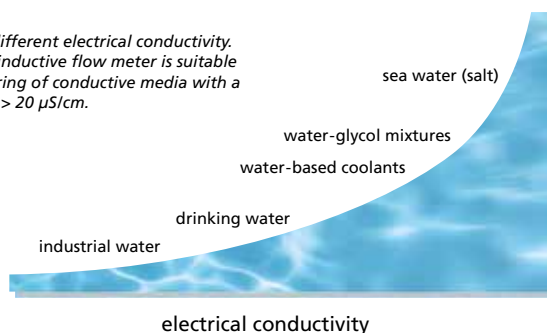
M12 connector · 24 vDC · outputs 2 x switch/analogue (4/20 mA) · EPDM seals

0.005...3	G1/4	-10...70	SM4100 ☺	\$1,332.84
0.1...35	G1/2	-20...90	SM6120 ☺	\$1,207.55
0.1...75	G3/4	-20...90	SM7120 ☺	\$1,391.36
0.2...150	G1	-20...90	SM8120 ☺	\$1,606.54
5...300	G2	-10...70	SM9100 ☺	\$1,827.65
5...600	G2	-10...70	SM2100 ☺	\$2,092.65

M12 connector · 24 vDC · outputs 2 x switch/analogue (4/20 mA) · FKM seals

0.005...3	G1/4	-10...70	SM4000 ☺	\$1,332.84
0.1...25	G1/2	-10...70	SM6100 ☺	\$1,263.10
0.2...50	G3/4	-10...70	SM7100 ☺	\$1,455.38
0.2...100	G1	-10...70	SM8100 ☺	\$1,679.04
5...300	G2	-10...70	SM9000 ☺	\$1,827.65
5...600	G2	-10...70	SM2000 ☺	\$2,092.65

Media have a different electrical conductivity.
The magnetic-inductive flow meter is suitable
for the monitoring of conductive media with a
conductivity of > 20 µS/cm.



SM ACCESSORIES

Process adapters
for type SM



Grounding
clamp for
type SM



Process connection	Device connection	Material	Order no.	For sensor type	Price
R 1/2	G 1/2	high-grade stainless steel	E40199	SM6xxx	\$125.50
G 1/2	G 1/2	high-grade stainless steel	E40213	SM6xxx	\$144.80
G 3/4	G 1/2	high-grade stainless steel	E40189	SM6xxx	\$107.91
R 1/2	G 3/4	high-grade stainless steel	E40178	SM7xxx	\$124.23
G 1/2	G 3/4	high-grade stainless steel	E40214	SM7xxx	\$147.13
G 3/4	G 3/4	high-grade stainless steel	E40216	SM7xxx	\$150.10
R 1/2	G 1	high-grade stainless steel	E40179	SM8xxx	\$125.50
G 3/4	G 1	high-grade stainless steel	E40215	SM8xxx	\$130.38
G 1	G 1	high-grade stainless steel	E40217	SM8xxx	\$160.27
1,5" Victaulic	G 2	high-grade stainless steel	E40227	SM9xxx, SM2xxx	\$475.09
R 2	G 2	high-grade stainless steel	E40231	SM9xxx, SM2xxx	\$474.03
G 1 1/2	G 2	high-grade stainless steel	E40230	SM9xxx, SM2xxx	\$416.58
Flange DN50	G 2	high-grade stainless steel	E40240	SM9xxx, SM2xxx	\$456.65

Description	Material	Order no.	For sensor type	Price
SM Grounding clamp	stainless steel	E40234	SMxxxx	\$19.72



Flow sensors type SV & SU

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	\$725.04
2.0...40	-10...90	DN10	G 1/2	SV5200	\$751.54
5.0...100	-10...90	DN20	G 3/4	SV7200	\$798.39
M12 connector - electrical design DC 2 x analogue 4...20 mA					
1.0...20	-10...90	DN8	G 1/2	SV4204	\$738.18
2.0...40	-10...90	DN10	G 1/2	SV5204	\$764.47
5.0...100	-10...90	DN20	G 3/4	SV7204	\$812.17

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⁾	\$14.84

ULTRASONIC FLOW METER - IDEAL FOR OIL, DIESEL AND GLYCOL SOLUTIONS



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				
1...240	-20...100	G 1 (DN25)	SU8020	\$1,116.82
5...1000	-20...100	G 2 (DN50)	SU2020	\$1,333.90
1...240	-20...100	G 1 (DN25)	SU8021	\$1,116.82
5...1000	-20...100	G 2 (DN50)	SU2021	\$1,333.90



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	\$1,679.04
0...100	0.1 l...1,000,000 m³	G 1	SU8000	\$1,747.73
0...200	0.1 l...100,000 m³	G 1 1/4	SU9000	\$2,473.40

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	\$124.23
G 1/2	G 3/4	SS316L	E40214	SU7xxx	\$147.13
G 3/4	G 3/4	SS316L	E40216	SU7xxx	\$150.10
R 1/2	G 1	SS316L	E40179	SU8xxx	\$125.50
R 3/4	G 1	SS316L	E40180	SU8xxx	\$142.46
1/2" NPT	G 1	SS316L	E40192	SU8xxx	\$125.50
3/4 NPT	G 1	SS316L	E40193	SU8xxx	\$142.46
G 3/4	G 1	SS316L	E40215	SU8xxx	\$130.38
G 1	G 1	SS316L	E40217	SU8xxx	\$160.27



Flow sensors type SA

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.



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	\$731.61
Progressive ring	4...300 / 200...10000	-20...100	100	SA4100	\$758.54
Progressive ring	4...300 / 200...10000	-20...100	200	SA4300	\$785.04

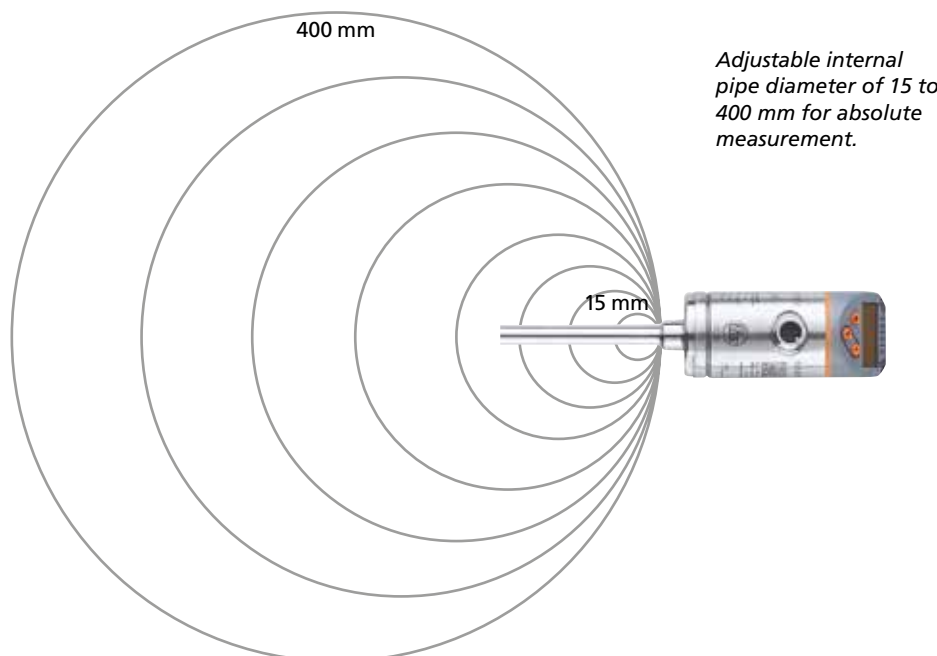


ACCESSORIES



Process connection	Device connection	Material	Order no.	Price
Screw Fitting - for SA5xxx series flow sensors				
G 1/4	progressive ring	SS316L	E40099	\$47.49
G 1/2	progressive ring	SS316L	E40096	\$61.27
G 3/4	progressive ring	SS316L	E40134	\$70.81
1/2 NPT	progressive ring	SS316L	E40107	\$54.06
Progressive Ring Fitting - for SA41xx & SA43xx series flow sensors				
G 1/4	progressive ring	SS316L	E40259	\$53.85
G 1/2	progressive ring	SS316L	E40258	\$89.04
G 3/4	progressive ring	SS316L	E40260	\$88.40
R 1/2	progressive ring	SS316L	E40263	\$71.23

APPLICATION GUIDELINE



Adjustable internal pipe diameter of 15 to 400 mm for absolute measurement.



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	\$671.40
24VDC, NPN	3...100	SS316L	30	SI5001	\$688.15
24VDC, 2xNO/NC	3...100	SS316L	300	SI5002	\$706.81
24VDC, 4...20mA	3...100	SS316L	300	SI5004	\$668.01
240VAC, relay	3...100	SS316L	300	SI5006	\$743.91
24VDC, PNP	3...100	SS316L	300	SI5010	\$710.20
24VDC, PNP	3...100	(Titanium)	100	SI5100	\$1,067.42

ACCESSORIES



Process connection	Device connection	Material	Order no.	Price
G 1/4	M18	SS316L	E40099	\$47.49
G 1/2	M18	SS316L	E40096	\$61.27
G 3/4	M18	SS316L	E40134	\$70.81
G 1	M18	SS316L	E40119	\$75.05

HYGENIC 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	\$802.21
38	3...100	SS316L	30	SI6700	\$814.29
55	3...100	SS316L	30	SI6800	\$825.74

ACCESSORIES



Process connection	Device connection	Material	Order no.	Price
Clamp 1...1.5"	Aseptoflex Vario	SS316L	E33201	\$113.42
Clamp 2"	Aseptoflex Vario	SS316L	E33202	\$132.71



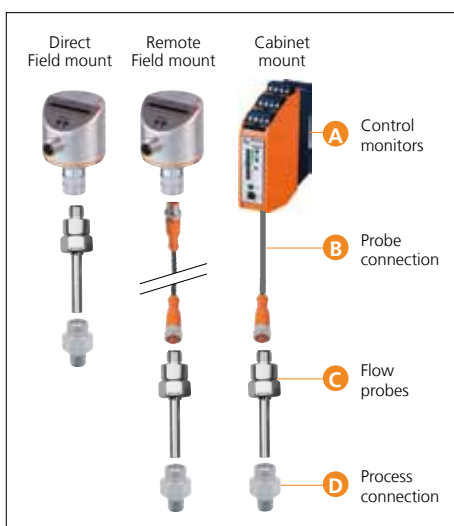
Flow sensors

CONTROL MONITOR FOR SF SERIES FLOW SENSORS



Component guide

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



Mounting	Output	Power Supply	Order no.	Price
Remote control monitor				
DIN Rail	Relay	24 VDC	SR0127	\$450.50
DIN Rail	Relay	90-240 VAC	SN0150	\$671.62

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	\$529.58
90...240 AC	SS304S15		SR5906	\$579.40

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	\$406.40
191	3...300 [cm/s]	SS316L	30	SF6200	\$461.74
M12 · process connection G 1/4 male, adapter · for aggressive media					
12	3...60 [cm/s]	ceramics*	30	SF2405	\$518.13
15,5	3...60	ceramics*	30	SF3405	\$627.73
44	3...300	titanium	100	SF5700	\$868.78
63	3...300	titanium	100	SF5701	\$912.24
93	3...300	titanium	100	SF5702	\$1,033.92
143	3...300	titanium	100	SF5703	\$1,185.93
243	3...300	titanium	100	SF5704	\$1,256.10

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	\$1,579.82
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	\$531.27



Compressed air meter ifm energy management systems

Compressed air supply system solutions



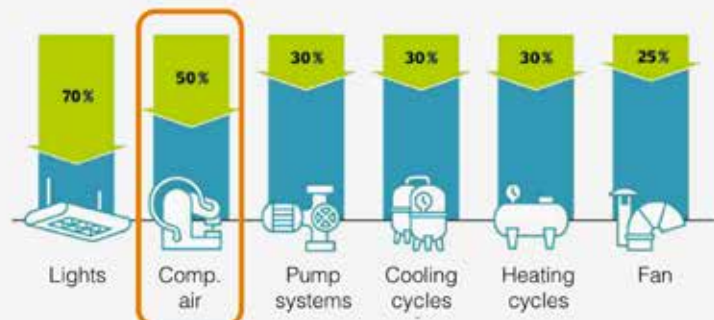
- Energy management system to DIN EN ISO 50001
- Measures flow, pressure and temperature simultaneously removing the need for multiple sensors
- Production and transport of compressed air are the second largest cause of energy costs.
- A compressed air system offers many opportunities to reduce operating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

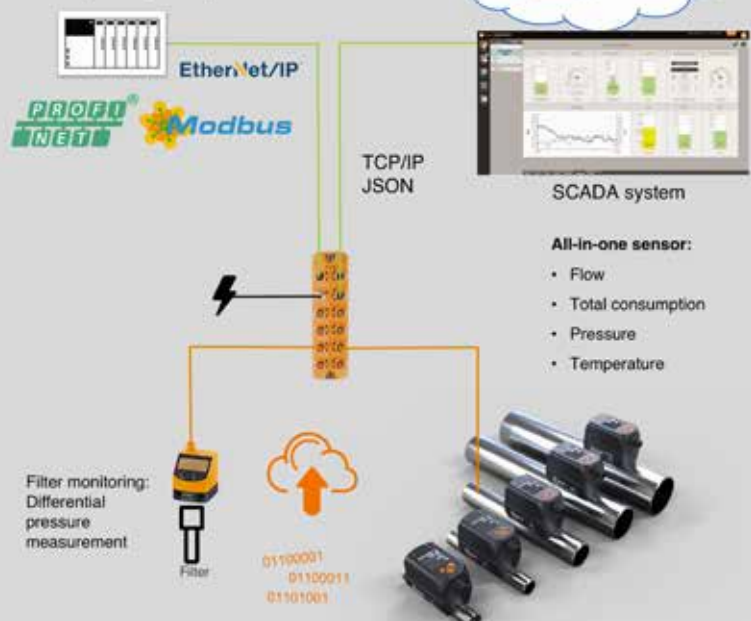


Measurement instrumentation from ifm

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.

Certified energy management system





Compressed air meters

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

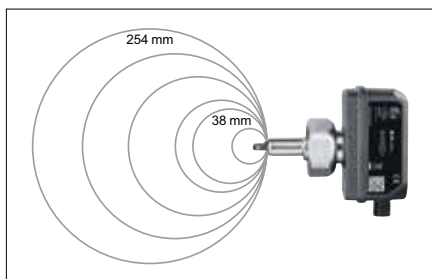


Measuring range [Nm ³ /h]	Pressure rating [bar]	Process connection	Order no.	Price
Defined pipe length for compressed air in industrial use				
0.05...15	16	G 1/4 (DN8)	SD5500	\$1,584.28
0.25...75	16	R 1/2 (DN15)	SD6500	\$1,584.28
0.8...225	16	R 1 (DN25)	SD8500	\$1,678.19
1.4...410	16	R 1 1/2 (DN40)	SD9500	\$2,079.93
2.5...700	16	R 2 (DN50)	SD2500	\$2,180.84
8...2,110	16	G1	SD1540	\$1,666.32
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	\$1,723.14
N ₂ : 0.24...73 Ar: 0.39...118.2 CO ₂ : 0.24...71.7	16	R 1/2 (DN15)	SD6600	\$1,723.14
N ₂ : 0.8...225.0 Ar: 1.2...366.6 CO ₂ : 0.8...223.6	16	R 1 (DN25)	SD8600	\$1,815.14

Accessories

Calibration certificate for flow sensors (SD)	Order no.	Price
ISO calibration certificate (6 x calibration points)	ZC0020	\$590.63
DAKKS calibration certificate (6 x calibration points)	ZC0075	\$1,278.57

LARGE DUCT AIR FLOW MONITOR



Adjustable internal pipe dia. of 38 - 254 mm.

Measuring range [Nm ³ /h]	Pressure rating [bar]	Process connection	Order no.	Price
Adjustable pipe diameter				
8...2,110	16	G 1 female	SD0523	\$2,192.93

Accessories

Type	Description	Order no.	Price
	Process connection, weld adapter	E40195	\$107.06

BASIC AIR FLOW SWITCH



Application	Output	Power Supply	Order no.	Price
Remote Amplifiers				
Air, -10...50 c	3A Relay	24v DC	SL5101	\$242.53
Air, -10...50 c	3A Relay	80-250 AC/DC	SL0301	\$268.60

Temperature sensors and mounting accessories

Selection Guide

Temperature sensors in contact with the medium



TA/TN/TK/TV Series
Compact temperature sensors

For industrial applications



TA/TU/TM Series
Compact temperature sensors

For industrial and mobile applications



TA/TD/TAD Series
Compact temperature sensors

For hygienic applications



TR/TP/TM/TS/TT Series
Temperature sensors – the modular concept

For industrial and hygienic applications



Accessories
Process adapters, thermowells, jumper cables and certificates

Non-contact temperature sensors



TW Series
Non contact infrared temperature sensors

Humidity Sensor



LD Air Humidity Sensor

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]: $\pm 0.3 + (\pm 0.1 \% Ms)$.



Measuring range [°C]	Process connection	Installation depth [mm]	Factory setting [°C]			Price
			0...200 Order no.	-50...150 Order no.	0...100 Order no.	
Analogue output 4...20 mA						
-50...150	G 1/4	25	-	TA2105 ☺	-	\$342.59
		50	-	TA2115 ☺	-	\$346.20
		100	-	TA2135 ☺	-	\$352.56
		150	-	TA2145 ☺	-	\$359.13
	G 1/2	30	-	TA2405 ☺	-	\$363.79
		50	-	TA2415 ☺	TA2417 ☺	\$366.76
		100	-	TA2435 ☺	TA2437 ☺	\$372.91
		150	-	TA2445 ☺	TA2447 ☺	\$379.27
Process connection, probe Ø 6 mm						
-50...200	Ø 6 mm	50	TA2212 ☺	-	-	\$357.86
		100	TA2232 ☺	-	-	\$364.22
		150	TA2242 ☺	-	-	\$370.58
		250	TA2262 ☺	-	-	\$383.30
		350	TA2292 ☺	-	-	\$396.65

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: $\leq 0.5 / \leq 2$ s.

Accuracy [K]: $\pm 0.3 + (\pm 0.1 \% Ms)$.



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 G1/2 with sealing cone						
-50...200	G 1/2 with hygienic sealing cone	30	TA2502 ☺	-	-	\$411.28
		50	TA2512 ☺	-	-	\$414.25
		50	-	-	TA2517 ☺	\$414.25
		50	-	TA2511 ☺	-	\$414.25
		100	TA2532 ☺	-	-	\$420.40
		100	-	-	TA2537 ☺	\$420.40
		100	-	TA2531 ☺	-	\$420.40
		150	TA2542 ☺	-	-	\$427.18

Accessories TA25 series hygienic weld fittings

Type	Description	Order no.	Price
	G1/2 - weld fitting (for Tanks)	E43300	\$57.45
	G1/2 - weld fitting (or Pipes)	E43301	\$67.42
	G1/2 - weld fitting (for deep insertion)	E30055	\$78.65




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 107







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 G 3/8 with coupling nut Ø 3 mm						
-50...200	G 3/8 internal thread	83	TA1322 	TA1321 	TA1327 	\$488.24



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 	-	-	\$384.36
		50	TA2812 	-	-	\$387.11
		100	TA2832 	-	-	\$393.26
		150	TA2842 	-	-	\$399.83

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	\$317.36
2 x NO				
-20...140	G 1/4	50	TK7110	\$317.36
1 x NO / 1 x NC				
-20...140	G 1/2	250	TK7460	\$363.79

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 ☺	\$325.00
	G 1/2	30	TV7405 ☺	\$345.56

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]	Price
			-50...150 Order no.	
2 switching outputs or 1 switching and 1 analogue output 4...20 mA or 0...10 V				
-50...150	G 1/2	30	TN2405 ☺	\$728.01
		50	TN2415 ☺	\$730.76
		100	TN2435 ☺	\$737.34
		150	TN2445 ☺	\$742.85

Accessories
Process adapters,
thermowells
Page 107



Temperature sensors

TEMPERATURE TRANSMITTER AND SWITCH ASSEMBLY

COMPONENT GUIDE TR



Evaluation electronics type TR



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

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	\$666.32
2 switching outputs				
-100...600	-40...300	G 1/2	TR7439	\$579.82

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	\$180.84	TT0291	\$193.56
	6 / 150	TT1281	\$187.62	TT1291	\$199.70
	6 / 250	-	-	TT2291	\$206.49
	6 / 350	-	-	TT3291	\$219.00
-40...150	10 / 160	TT1081	\$198.01	-	-
	10 / 260	TT2081	\$211.36	-	-
	10 / 360	TT3081	\$224.30	-	-
	10 / 560	TT5081	\$250.16	-	-
Industrial applications					
-100...600	6 / 100	TS2451	\$233.20	-	-
	6 / 150	TS2452	\$239.56	-	-
	6 / 200	TS2453	\$246.13	-	-
	6 / 250	TS2454	\$252.70	-	-

¹⁾ PT1000 sensor element





PT100 / PT1000 cable sensors type TS



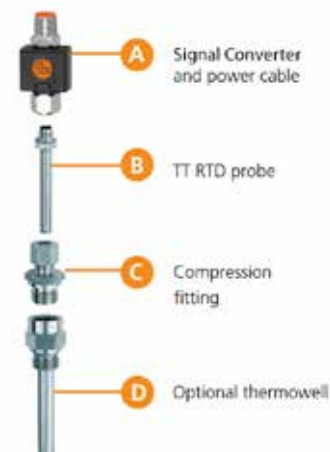
Process connection	Measuring range [°C]
Industrial applications	
Ø 6 mm	-40...90
	-50...250
	-50...250
	-100...600 °C
Bolt-on sensor 12 x 8.7 x 51 mm	-40...90
Bolt-on sensor 12.5 x 8.7 x 47 mm	-40...90
Bolt-on sensor ATEX 10 x 18 x 48 mm	-20...115
M5 screw-in sensor	-30...180
M6 screw-in sensor	-30...180
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
Analogue output 4...20 mA				
-50...300	-50...150	M12	TP3231 	\$207.76
	-50...300		TP3232 	\$207.76
	0...100		TP3237 	\$207.76
Analogue output 0...10 V				
-50...300	0...100	M12	TP9237 	\$207.76

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	\$128.26
PTFE / M12 / 0.15m	TS9256 ¹⁾	\$186.35 ¹⁾
PTFE / M12 / 2m	TS2256	\$226.63
PTFE / M12 / 2m	TS2451	\$233.20
PUR / M12 / 2m	TS2229	\$121.48
PUR / - / 2m	TS2239	\$83.10
silicone / - / 5m	TS502A ¹⁾	\$290.23 ¹⁾
silicone / M12 / 2m	TS2759	\$138.22
silicone / M12 / 2m	TS2659	\$168.96
silicone / - / 2m	TS285A	\$274.96
silicone / wire end ferrules / 5 m	TS5951	\$156.03

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	\$188.68
	-40...150	25	TM5101 ¹⁾	\$188.68 ¹⁾
G 1/2	-40...150	50	TM4411	\$213.70
	-40...150	50	TM5411 ¹⁾	\$213.70 ¹⁾
	-40...150	100	TM4431	\$218.78
	-40...150	150	TM4441	\$225.36
	-40...150	250	TM4461	\$238.08
Internal thread M18 x 1.5	-40...125	60	TM9950	\$238.50
Hygienic applications				
G 1/2 with sealing cone	-50...140	Flush mount	TM4599	\$251.64
G 1/2 with sealing cone	-40...150	50	TM4511	\$260.55
	-40...150	100	TM4531	\$266.91
	-40...150	150	TM4541	\$273.06
	-40...150	30	TM4801	\$233.84
Clamp 1 - 1.5"	-40...150	50	TM4811	\$236.38
	-40...150	100	TM4831	\$243.16
	-40...150	150	TM4841	\$249.74

¹⁾ PT1000 sensor element



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).

Measuring range [°C]	Process connection	Installation depth [mm]	Factory setting [°C] 0...150 Order no.	Price
Analogue output 4...20 mA				
-25...160	G 1/2 Sealing Cone	33	TCC501 ☺	\$878.32
		50	TCC511 ☺	\$880.44
		100	TCC531 ☺	\$886.80
		150	TCC541 ☺	\$893.37
	1-1.5" Tri Clamp	50	TCC811 ☺	\$856.90
		100	TCC831 ☺	\$863.26
	2" Tri Clamp	50	TCC911 ☺	\$880.44
		100	TCC931 ☺	\$886.80
	Ø 6 mm	250	TCC261 ☺	\$838.46
		350	TCC291 ☺	\$850.97
		450	TCC281 ☺	\$863.48
		550	TCC201 ☺	\$876.41

Accessories

Type	Description	Order no.	Price
	G1/2 - weld fitting (for Tanks)	E43300	\$57.45
	G1/2 - weld fitting (or Pipes)	E43301	\$67.42
	G1/2 - weld fitting (for deep insertion)	E30055	\$78.65
	Welding adapter for process sensors; stainless steel (1.4404 / 316L); clamping ring: PEEK; Pressure rating 10 bar; welding adapter Ø 25 mm; Approval EC 1935/2004, EHEDG, FDA	E30407	\$84.80





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 [°C]	Price
			-10...150 Order no.	
Process connection 1.5" Tri-clamp, analogue output 4...20 mA				
-50...150	Clamp 1 - 1.5"	30	TD2801 ☺	\$516.64
		50	TD2811 ☺	\$518.98
		100	TD2831 ☺	\$525.34
		150	TD2841 ☺	\$532.12
Process connection 1.5" Tri-clamp, analogue output 4...20 mA				
0...100	Clamp 1 - 1.5"	30	TD2807 ☺	\$516.64
		50	TD2817 ☺	\$518.98
		100	TD2837 ☺	\$525.34
		150	TD2847 ☺	\$532.12
Process connection G1/2, analogue output 4...20 mA				
0...100	G1/2 (BSP-P)	100	TD2531 ☺	\$548.87
		150	TD2541 ☺	\$555.44



Accessories

Type	Description	Order no.	Price
Cable . M12 . 4pole (0.34mm sensor) . IP69K, 4A max			
	2.0 m, grey, MPPE cable	EVF064	\$44.73
	5.0 m, grey, MPPE cable	EVF001	\$46.00
	10.0 m, grey, MPPE cable	EVF002	\$56.82
	15.0 m, grey, MPPE cable	EVF092	\$73.56
	25.0 m, grey, MPPE cable	EVF003	\$88.83
	2.0 m, grey, MPPE cable	EVF067	\$45.16
	5.0 m, grey, MPPE cable	EVF004	\$46.00
	10.0 m, grey, MPPE cable	EVF005	\$56.82
	15.0 m, grey, MPPE cable	EVF094	\$70.38
	25.0 m, grey, MPPE cable	EVF006	\$88.83
	5.0 m, grey, MPPE cable, PNP, LED	EVF007	\$54.27
	10.0 m, grey, MPPE cable, PNP, LED	EVF008	\$64.24
	25.0 m, grey, MPPE cable, PNP, LED	EVF009	\$97.73
M12 Wirable plugs and sockets, 4-pole, IP69K, 4A max			
	M12, Wirable socket, angled	EVF566	\$50.03
	M12, Wirable socket, straight	EVF565	\$50.03
	M12, Wirable plug, angled	EVF568	\$50.03
	M12, Wirable plug, straight	EVF567	\$50.03



Accessories
Process adapters,
thermowells
Pages 107

Temperature sensors

NON-CONTACT TEMPERATURE SENSORST



- 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

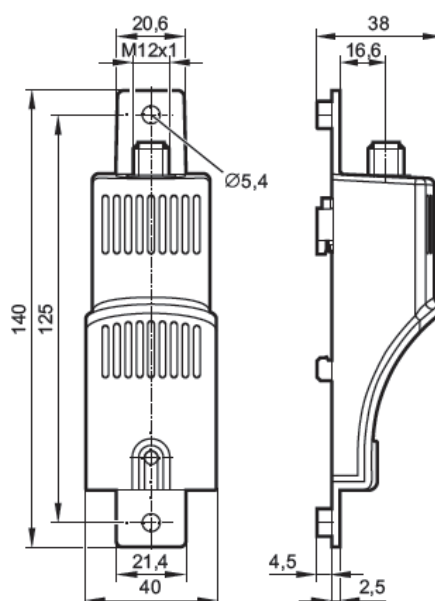


Measuring range [°C]	Output 4...20 mA and switching output	Order no. without LED pilot light	Price
Measuring system			
0...1000	8...14	TW2000 ☺	\$2,235.54

AIR HUMIDITY SENSOR



Temperature Measuring Range [°C]	Output	IP rating	Order no.	Price
Humidity measuring sensor				
-40...60	2 x 4...20 mA	IP 20, III	LDH290 ☺	\$346.62
-40...80	IO-Link	IP 20, III	LDH292 ☺	\$339.84





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	\$58.09	
①	Progressive ring fitting	Ø 10 mm	G 1/2	E30016					TT	\$57.03



② Clamp adapter

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	



③ Screw-in thermowell up to 16 bar

Industrial applications									
③	G 1/2	G 1/2	27	E37600	TA241x	TN2415	TM4411	TT0281 ¹⁾	\$98.37
			74	E37610	TA243x	TN2435	TM4431	TT1281 ¹⁾	\$104.73
			82	E35010				TT1081 ⁴⁾	\$115.75
			124	E37620	TA244x	TN2445	TM4441	TT2281 ¹⁾	\$110.88
			174	E37630				TT2281 ¹⁾	\$117.45
			182	E35020				TT2081 ⁴⁾	\$128.90
			224	E37640			TM4461	TT3281 ¹⁾	\$124.02
			282	E35030				TT3081 ⁴⁾	\$142.25
			482	E35050				TT5081 ⁴⁾	\$168.12



⑦ Screw-in thermowell up to 16 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⁾	\$147.13
			118	E37521	TA2542	TD254x	TM4541	TT2291 ²⁾	\$153.70
⑤	G 1/2 with sealing cone	Ø 34 mm	49	E37411	TA2512	TD251x	TM4511	TT0291 ²⁾	\$157.09
			99	E37421	TA253x	TD253x	TM4531	TT1291 ²⁾	\$163.66
			149	E37431	TA2542	TD254x	TM4541	TT2291 ²⁾	\$170.66



⑥ Welding thermowell up to 300 bar



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		\$89.68
	Titanium adapter	M18 x 1.5	G 1/2	E40114		TM	TN		\$262.46

Conductivity Sensors

For more insights:



A new approach to analytical sensors

MEDIA DIFFERENTIATION SENSOR



- 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



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	\$1,214.76
Application: Media ultra pure water					
G 1/2	0.04...1,000	-25...100; (< 1 h: 150)	10 % MW ± 25 µS/cm	LDL101	\$1,765.11

Accessories



Type	Process connection	Order no.	Price
	G 1/2 I – G 3/4 A adaptor	E43302	\$79.29
	G 1/2 I – G 1 A adaptor	E43303	\$143.52
	G 1/2 into 1-1.5" Tri clamp adaptor with leakage port	E43311	\$136.74
	G 1/2 into 2" Tri clamp adaptor with leakage port	E43312	\$188.26
	G 1/2 into 1-1.5" Tri clamp adaptor	E33401	\$105.15
	G 1/2 into 2" Tri clamp adaptor	E33402	\$105.15

High Accuracy Conductivity Sensors







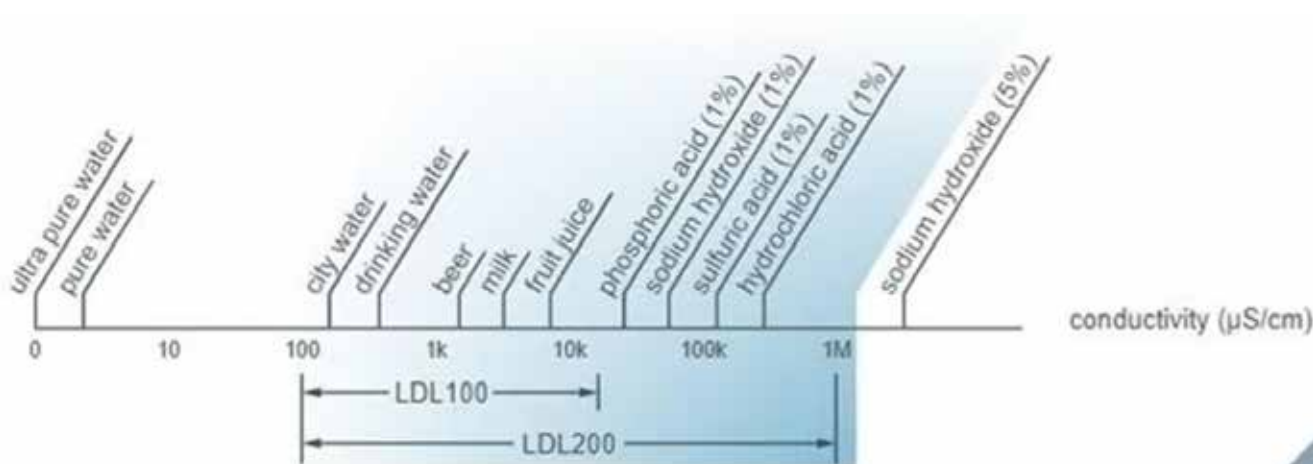
- Reduce inaccuracies associated with a time-based cleaning process
- Improve process performance with flexible measurement points
- Compact, high-quality sensor design prevents failures and unplanned downtime
- **Simplify your installation and commissioning processes**
- **Loss-free signal transmission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



Image	Process connection	Measurement range conductivity [μ S/cm]	Measurement range [$^{\circ}$ 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 ☑	\$2,424.64
Inductive conductivity measurement like LDL200 with extended probe length for tri clamp					
	G 1	100...1,000,000	-25...100; (< 1 h: 150)	LDL201 ☑	\$2,561.81

Accessories

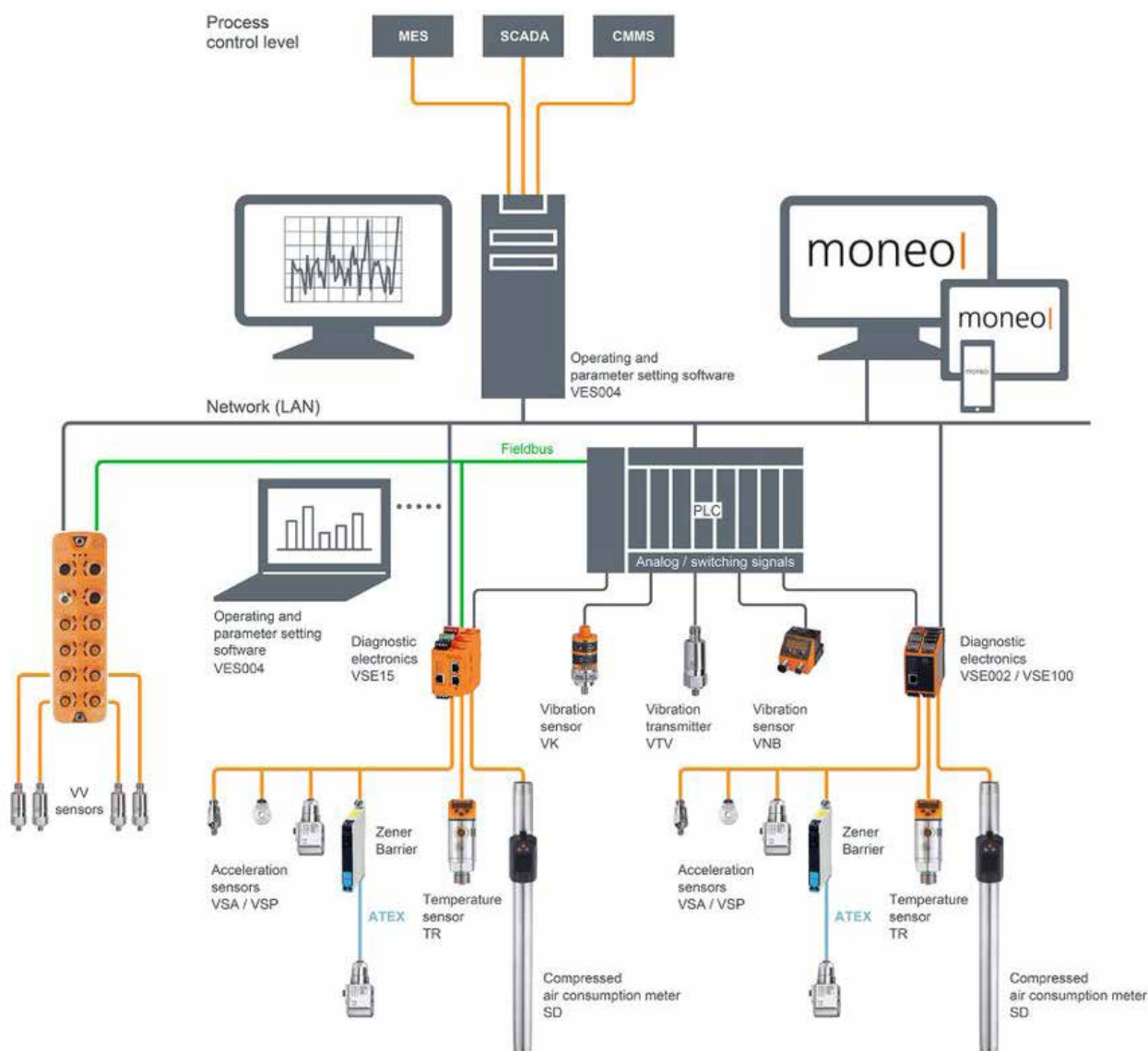
Type	Description	Order no.	Price
	Tri-clamp – G 1 Aseptoflex Vario 1.5" with leakage port	E33208	\$122.11
	Tri-clamp – G 1 Aseptoflex Vario 2" with leakage port	E33209	\$140.34
	D50 – G 1 external thread Aseptoflex Vario with leakage port	E30130	\$116.39
	D38 – G 1 external thread Aseptoflex Vario with leakage port	E30500	\$116.39



Plant condition monitoring



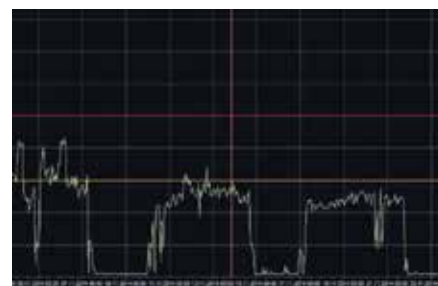
Vibration accelerometers for all applications



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

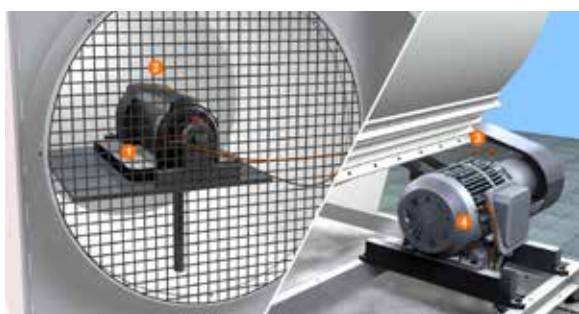


Electric motors drive nearly all industrial machines and processes. We depend on motors to run without interruption. Like any machine, motors are subjected to damaging forces such as misalignment, shaft overload, and lack of lubrication to name a few.

How could you improve your overall operational effectiveness?

Motors are often overlooked or are located in inaccessible locations. Implementing RtM 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.

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:



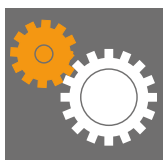
*Looseness,
unbalance*



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

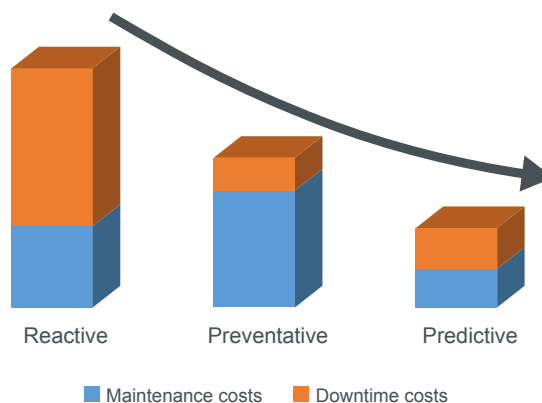
There are 3 basic types of industrial maintenance processes and each have costs associated with them.

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.



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 fatigue, 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); normally open / normally closed; (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	\$831.25



North Otago Irrigation pump station, employs ifm IO-Link condition monitoring systems. This state of the art pump station transfers 2 m³ /s



Plant condition monitoring

SYSTEMS FOR CONTINUOUS VIBRATION MONITORING AND DIAGNOSTICS



Type	Description	Order no.	Price
	Profinet IO Device Class C	VSE150	\$2,178.94
	Ethernet/IP (available from Q2, 2018)	VSE151	\$2,178.94
	Modbus TCP (available from Q2, 2018)	VSE153	\$2,178.94
	Diagnostic electronics for vibration sensors VSE, Input/Output Total: 8	VSE003	\$1,318.64

Accelerometer

Type	Description	Order no.	Price
	Vibration Sensor, IP68/69K, 0 to 10mA output	VSA001	\$417.85
	Acceleration sensor; Measuring range of vibration -50...50 g; Frequency range 2...10000 Hz; Ambient temperature -55...125 °C; IP 67; Connector	VSP001	\$513.89
	Vibration sensor ATEX for hazardous areas	VSP01A	\$965.87
	Vibration sensor submersible: Large operating temperature range and high protection rating for the requirements of harsh industrial environments	VSP004	\$986.01
	Vibration sensor: Large operating temperature range and high protection rating for the requirements of harsh industrial environments	VSP003	\$612.47
	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	\$1,092.01
	2 switching outputs, or 1 switching output and 1 4...20 mA (set via pushbuttons), 1 input 4...20 mA (VNA001)	VNB001	\$968.84
	VNB series input - Acceleration sensor; analogue; Measuring range of vibration -25...25 g; Frequency range 0...6000 Hz; IP 69K; Connector	VNA001	\$399.83

Accessories

Type	Description	Order no.	Price
	Parameter software	VES004	\$307.40
	octavis OPC server software German / English	VOS001	\$988.56
	Mounting Accessory (for electrical isolation)	E30132	\$50.24
	Screened, M12, 4-pole, 2 m black, PUR cable	EVC535	\$34.98
	Screened, M12, 4-pole, 5 m black, PUR cable	EVC536	\$45.79

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	\$453.68
Vibration transmitter to ISO 10816, measuring range RMS: 0...50 mm/s, analogue output 4...20 mA, 24VDC, M12 connector + switching output.	VKV022	\$453.68



AS-i Bus system components

AS-I MASTERS



AS-I IO-LINK MASTER

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	\$2,663.36
EtherNet/IP device interface, 2x AS-i masters with M4 Profile	AC1424	\$3,017.82
AS-i EtherNet/IP gateway; Number of AS-i masters 1; terminals	AC1421	\$2,288.96
AS-i EtherNet/IP gateway; Number of AS-i masters 2; terminals	AC1422	\$2,832.74
AS-i EtherNet/IP gateway with safe preprocessing	AC422S	\$3,493.12

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	\$582.58
4 A	100...120 / 200...240	AC1254	\$724.19
4 A	24v DC	AC1257	\$829.34
8 A	380...480	AC1253	\$1,207.13
8 A	115 / 230	AC1258	\$1,021.42
2 x 4 A	115 / 230	AC1212	\$1,300.41

PASSIVE POWER SUPPLIES

Type	Description	Order no.	Price
	ProcessLine 4SB IP69K	AC2950	\$181.68
	ProcessLine 8SB IP69K	AC2951	\$225.99

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	\$757.90
	IP 69K, 8-way splitter box. Passive ProcessLine module, SS316L, Sockets M12	AC2900	\$374.18
	Active ProcessLine module; ProcessLine 8DI IP69K; Connector; IP 69K	AC2910	\$735.43
	FC splitter · M12 socket · SS316L / 1.4404 / Blanks: FPM / O-ring: EPDM	E70354	\$87.56
	FC splitter · SS316L / 1.4404 / Blanks: FPM / O-ring: EPDM	E70377	\$78.86



AS-i Bus system components

SMARTLINE MODULES



Type	Description	Order no.	Price
	SmartLine25 4AO (C) C IP20	AC2218	\$1,187.20
	SmartL25 4DI 2DO R C	AC2256	\$251.64
	SmartL25 4DI 4DO T C	AC2257	\$284.08
	Active AS-i module, 4 inputs	AC2250	\$213.06
	Active AS-i module, 4 inputs / 4 outputs	AC2251	\$294.04
	SmartL25 4DI 4DO T C	AC3200	\$309.94
	SmartL25 4DI AUX 4DO T C	AC3201	\$309.94
	SmartL25 4DI 4DO R C	AC3220	\$341.53
	SmartL25 4DI AUX 4DO R C	AC3221	\$341.53
	SmartL25 AS-i Repeater III	AC3226	\$585.54
	SmartL25 4DI 4DO T C	AC3251	\$292.14
	SmartL25 4DI 2DO R C	AC3256	\$258.00
	SmartL25 4DI AUX 4DO T C	AC3257	\$256.94

COMPACT MODULES - IP67



Type	Description	Order no.	Price
	CompactModule 4DI M12	AC2410	\$308.04
	CompactModule 2DI 2DO T M12	AC2411	\$397.08
	CompactModule 4DI 4DO T M12	AC2412	\$510.28
	CompactModule 4DI M12 V4A	AC2451	\$348.74
	CompactModule 4DI 4DOT M12 V4A	AC2452	\$581.30
	CompactLM12 4DI M12 IR IP67	AC2457	\$288.53
	CompactLM12 4DI 4DO T M12 IR	AC2459	\$475.30
	CompactLineM12 4DI4DO T M12	AC2466	\$546.32
	CompactLineM8 4DI 4DO T	AC2490	\$410.22



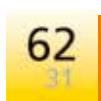
Type	Description	Order no.	Price
	AS-Interface flat cable seal	AC3003	\$40.49
	Flat cable insulation displacement connector; Connector	AC5005	\$25.02

ELECTRONIC MODULES

Type	Description	Order no.	Price
	AS-Interface PCB module AS-i pcb 2-DI/1-DO	AC2729	\$215.60
	AS-Interface PCB module PCB 4DI 4DO T W A/B	AC2750	\$267.76
	AS-Interface PCB module PCB 4DI 4DO T C A/B	AC2752	\$267.76


AS-i Bus system components


AS-I SAFETY











Type	Description	Order no	Price
------	-------------	----------	-------

AS-i controller and gateways (colour display for clear diagnosis & set-up)

	AS-i EtherNet/IP gateway with safe preprocessing	AC4325	\$3,698.13
---	--	--------	------------

Type	Safety Outputs	Non-safe Outputs	Order no.	Price
		SmartLine SafetyModule	AC0095	\$450.29
		SmartLine Module 2SO IP20	AC0305	\$825.32
		ClassicL 2SI 2DOT 2LO OSSD	AC5075	\$402.16
		ClassicLine 4DI-Y II 3D	AC515A	\$332.42
		AS-i Safety Platine	AC0155	\$233.41
		E-stop illuminated IP67	AC0105	\$473.82

Accessories

Type	Description	Order no.	Price
	AS-i addressing unit	AC1154	\$799.24
	AS-i Tuner IP67, diagnostic module; Connector	AC1146	\$1,221.97
	AS-Interface passive bus termination	AC1147	\$209.46
	Flat cable connector M12	E70096	\$15.05
	Flat cable 100 m EPDM (yellow), 2 x 1.5mm²	E74000	\$481.03
	Flat cable EPDM (yellow) 2x 1.5mm, cut/meter	ZE1732	ZE1732
	Flat cable 50 m EPDM (yellow), 2 x 1.5mm²	E74002	\$275.39
	Flat cable 500 m EPDM (yellow), 2 x 1.5mm²	E74003	\$2,264.80
	Flat cable EPDM 100 m (yellow), 2 x 1.5mm²	E74005	\$535.09
	Flat cable 100 m EPDM (black), 2 x 1.5mm²	E74010	\$537.84
	Flat cable EPDM (black) 2x 1.5mm, cut/meter	ZE1733	ZE1733
	Flat cable 500 m EPDM (black), 2 x 1.5mm²	E74013	\$2,547.82
	Flat cable 100 m TPE (yellow), 2 x 1.5mm²	E74200	\$609.29
	Flat cable 100 m TPE (black), 2 x 1.5mm²	E74210	\$705.96
	Flat cable 100 m TPE (red), 2 x 1.5mm²	E74220	\$1,095.62
	Flat cable 200 m EPDM (yellow), 2 x 2.5mm²	E74406	\$1,398.35
	Flat cable 200 m EPDM (black), 2 x 2.5mm²	E74416	\$1,398.35
	FC Splitter AS-i UL	E70581	\$39.43
	FC Splitter AS-i M12 FC top UL	E70585	\$26.50
	FC Splitter AS-i / AUX M12 UL	E70587	\$65.51
	QUAD M12 AS-i/24V 4A	E70588	\$93.07
	FC Splitter AS-i 2 m UL	E70598	\$42.19










RFID antennas with IO-Link

Wide selection available



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

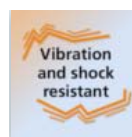
Type	Description	Part No	Price
IO-Link RFID Antennas			
	Read/write head; 13,56 MHz; IO-Link; 40 x 40 x 54 mm; Ambient temperature -20...60 °C; IP 67; IP 69K	DTI513	\$450.29
	Read/write head; 13,56 MHz; IO-Link; 20 x 7 x 48 mm; Ambient temperature -20...60 °C; IP 67; IP 69K	DTI515	\$391.99
RFID Antennas			
	RFID antenna 13.56 MHz, M30 design, flush	ANT430	\$485.06
	RFID antenna 13.56 MHz, M30 design, non-flush	ANT431	\$485.06
	RFID antenna 125 KHz	ANT512	\$487.18
	RFID antenna 13.56 MHz, ISO 15693	ANT513	\$513.89
RFID Evaluation Units			
	RFID evaluation unit, EtherNet/IP interface	DTE102	\$1,357.86
	RFID evaluation unit, EtherCAT interface	DTE103	\$1,286.20
Accessories			
	ID tag; 13,56 MHz; Ø 30 / L = 2.8 mm; Ambient temperature -25...85 °C; IP 68	E80370	\$51.52
	ID tag; 13,56 MHz; Ø 30 / L = 3 mm; Ambient temperature -40...85 °C; IP 68; IP 69K	E80371	\$22.47
	ID tag; 13,56 MHz; Ø 50 / L = 3 mm; Ambient temperature -25...85 °C; IP 68; IP 69K	E80383	\$55.97

Products for mobile automation.



Systems for mobile machines

ALWAYS THE FIRST CHOICE. ROBUST, FLEXIBLE, RELIABLE.



Construction machines



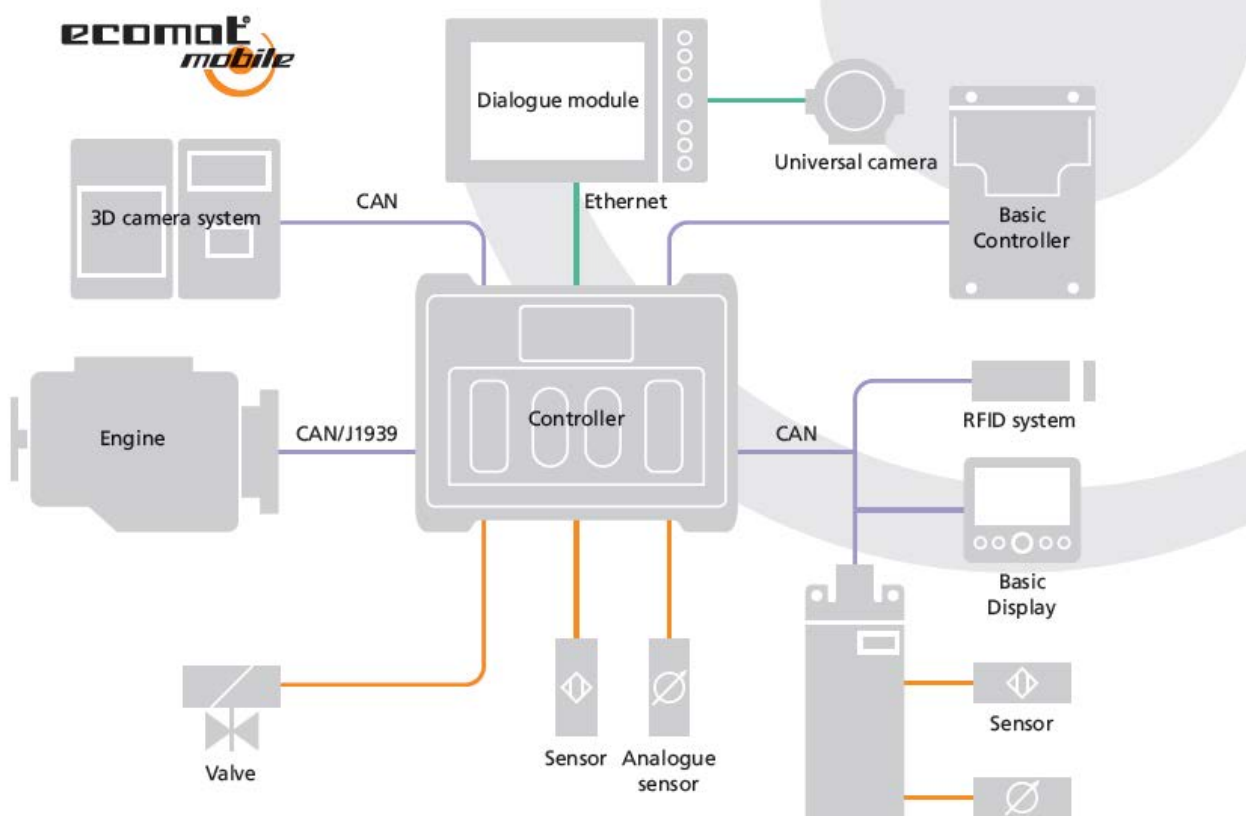
Agriculture and forestry



Transport and logistics



Municipal vehicles





LED displays with optical bonding	Order No.		
	CR1152	CR1077	CR1203
Display	5.0"	7.0"	12.3" (wide)
Prices	\$2,753.03	\$4,356.39	\$5,475.96
Aspect ratio	16:10	16:10	8:3
Resolution	800 x 480	800 x 480	1280 x 480
Colour depth	24 bit	18 bit	24 bit
Touch	●	●	●
Controller with GPU	dual core, 800 Mhz	quad core, 1.2 GHz	quad core, 1.2 GHz
Memory (RAM) [GByte]	1	1	1
Memory (flash) [GByte]	4	8	8
Buttons (RGB backlit)	4	6	-
Navigation element	cross	cross	-
COMMUNICATION INTERFACE			
Ethernet	1	2	2
CAN	4	4	4
USB 2.0	1	2	2
Analogue video interfaces	2	4	4
AUDIO INTERFACES			
Stereo Out (amplified)	1	1	1
Line In	-	1	1
Headphones Out	-	1	1
INPUTS / OUTPUTS			
Digital In BL	2	2	2
Digital Out 2.5 A	2	2	2

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	\$2,446.06
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	\$3,434.19
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	\$4,422.53

CONTROLLER STARTER SET FOR MOBILE MACHINES



Description	Order No.	Price
ecomatController/Starterkit	EC2121	\$1,691.76

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	\$437.99
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	\$584.48
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	\$604.62
14	8 x digital, 4 x analogue (U/I) 4 x frequency, 4 x resistance	6 x relay	2 x CAN	CR0431	\$611.41

Relay modules, IP20

Locations	Order no.	Price
6 automotive relays, 10 automotive fuses	CR0421	\$71.23

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	\$723.56
4.3" colour display	–	6 freely programmable backlit function keys, cursor key	1 x CAN	CR0452	\$1,034.98

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	\$823.20
16	8x Digital, 4x Analogue	8x Digital, 8x PWM, 8x PWM-I		2 x CAN	CR2052	\$803.27
8	–	16x Digital, 16x PWM, 8x PWM-I	M12	2 x CAN	CR2041	\$772.53
16	16x Digital, 4x Analogue	8x Digital, 8x PWM, 8x PWM-I	M12	2 x CAN	CR2042	\$753.66
16	16x Digital, 8x Analogue	–	M12	2 x CAN	CR2040	\$640.88

BASIC CAN BUS CONTROLLERS, IP67



I/O total	Input functions	Output functions	Interfaces	Order no.	Price
ClassicController, IP 67					
32	16 x digital, 16 x analogue (U/I) 16 x frequency	16 x digital, 16 x PWM-I 16 x PWM, 2 x H bridge	4 x CAN, 1 x USB 1 x RS-232	CR0032	\$3,220.07
32	16 x digital, 12 x analogue (U/I) 12 x frequency, 4 x resistance	16 x digital, 16 x PWM-I 16 x PWM, 2 x H bridge	4 x CAN, 1 x USB 1 x RS-232	CR0033	\$3,220.07
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	\$1,079.72
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	\$1,896.55
PDM360 NG, IP 65/67					
7" colour display	1 x digital / analogue-In 1 x digital-Out	9 freely programmable backlit function keys, key with pushbutton, touch screen	4 x CAN, 2 x USB 1 x Ethernet 2 x video	CR1082	\$5,174.50
7" colour display	1 x digital / analogue-In 1 x digital-Out	8 freely programmable backlit function keys, key with pushbutton	4 x CAN, 2 x USB 1 x Ethernet 2 x video	CR1083	\$4,889.57



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

MULTI-FUNCTION INPUT MODULE



Description	Order no.	Price
Multi-functional input module, LED, multi-colour. CAN protocol J1939	CR1300	\$415.52
Multi-functional input module, 4 part segment ring, LED, multi-colour. CAN protocol J1939	CR1301	\$460.89

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	O3M251	\$4,312.72
O3M illumination unit - for the operation of O3M250 / O3M251				
infrared light 850 nm	—	70 x 23	O3M950	\$1,547.60



Absolute multiturn encoder	Order no.	Price
Resolution = 4096 steps; 4096 revolutions; 24 bit, Communication interface = CAN, Solid shaft = 10mm dia.	RM9000	\$620.52



Description	Order no.	Price
2 axis		
2x Axis. Angular range $\pm 180^\circ$. Output 1 IO-Link NO/NC prog. Output 2 - NO/NC prog. PNP/NPN. Analogue 4...20 mA. Output 3 and 4 analogue	JN2200	\$686.88
2x Axis. Angular range $\pm 45^\circ / 90^\circ$, IO-Link. Output 1 - IO-Link NO/NC prog. Output 2 - NO/NC prog. PNP/NPN. Analogue 4...20 mA	JN2201	\$763.20
1 or 2 axis		
Inclination sensor; 27 x 59 x 118.5 mm; CAN; Ambient temperature -40...85 °C; M12 Connector; [inclination measurement]: $\pm 90^\circ$	JD2120	\$1,290.02
Inclination sensor; 27 x 59 x 105.3 mm; CAN; Ambient temperature -40...85 °C; M12 Connector; [inclination measurement]: 0...360 °	JD1111	\$1,248.68





Design / length [mm]	Sensing range [mm]	Connection	Output	Order no.	Price
M12 / 70	7 nf	M12	3 / 2-wire; DC PNP/NPN; NO	IFM204	\$112.57
M12 / 70	4 f	M12	3-wire; DC PNP; NO	IFM205	\$128.05
M18 / 70	8 f	M12	3 / 2 -wire; DC PNP/NPN; NO	IGM200	\$112.57
M18 / 70	12 nf	M12	3 / 2 -wire; DC PNP/NPN; NO	IGM201	\$112.57
M18 / 70	12 nf	M12	3-wire; DC PNP; NO	IGM205	\$128.05
M30 / 70	12 f	M12	3 / 2 -wire; DC PNP/NPN; NO	IIM200	\$149.04
M30 / 70	22 nf	M12	3 / 2 -wire; DC PNP/NPN; NO	IIM201	\$149.04

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	\$235.53

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	\$272.63
0...250	G 1/4	DEUTSCH connector	-40...125	4...20 mA	PT5701	\$272.63
0...250	G 1/4	AMP connector	-40...125	4...20 mA	PT5601	\$272.63
0...250	G 1/4	DEUTSCH connector	-40...125	0.5...4.5 V	PU8701	\$272.63

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	\$342.59
-50...150	G 1/4	M12 connector	50	4...20 mA	TA3115	\$346.20
-50...150	G 1/4	M12 connector	25	0.5...4.5 V	TU3105	\$342.59
-50...150	G 1/4	DEUTSCH connector	25	0.5...4.5 V	TU4105	\$355.74

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	\$472.55
40x40 x54mm	≤ 60, nf	DTC510	\$537.84
Description		Order no.	Price
ID TAGs (selection) for 13.56 MHz system			
Ø 30 x 2.5 / 06 - 896 bits		E80371	\$22.47

ECOMATCONTROLLER ACCESSORIES

Type	Description	Order no.	Price
	Wireable AMP connector, 81 poles, A-coded	EC0701	\$65.93
	Wireable AMP connector, 81 poles, B-coded	EC0702	\$76.96



Type	Description	Order no.	Price
	CAN devices to the USB interface of a PC, R360/CAN-Interface/CANFox	EC2112	\$464.70
	Programming cable set for CAN interface, R360/CABLE/CANfox-Basic	EC2114	\$233.41

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	\$40.28
	5 m black, PUR cable	EVM002	\$47.28
	10 m black, PUR cable	EVM003	\$55.97
	15 m black, PUR cable	EVM018	\$64.87
	25 m black, PUR cable	EVM014	\$87.77
	60 m black, PUR cable	EVM065	\$168.33
	2 m black, PUR cable	EVM004	\$40.28
	5 m black, PUR cable	EVM005	\$47.28
	10 m black, PUR cable	EVM006	\$55.97
	15 m black, PUR cable	EVM019	\$64.87
	25 m black, PUR cable	EVM012	\$87.77
	50 m black, PUR cable	EVM010	\$141.40
M12 sockets 5-pole (0.34mm² sensor) - IP69k, 4A max			
	2 m black, PUR cable	EVM036	\$42.40
	5 m black, PUR cable	EVM037	\$52.15
	10 m black, PUR cable	EVM038	\$69.32
	2 m black, PUR cable	EVM039	\$42.40
	5 m black, PUR cable	EVM040	\$52.15
	10 m black, PUR cable	EVM041	\$69.32

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	\$33.50
	Wirable socket, straight, 5-pole	EVC814	\$36.04
	Wirable socket, angled, 4-pole	EVC811	\$33.50
	Wirable socket, angled, 5-pole	EVC815	\$36.04
	Wirable plug, straight, 4-pole	EVC812	\$33.50
	Wirable plug, straight, 5-pole	EVC816	\$36.04
	Wirable plug, angled, 4-pole	EVC813	\$33.50
	Wirable plug, angled, 5-pole	EVC817	\$36.04



- 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

Type	Description	Order no	Price
Connection cable M12 connector			
	2.0 m	EVC943	\$73.35
	5.0 m	EVC944	\$149.04
	2.0 m	EVC945	\$73.35
	5.0 m	EVC946	\$149.04
Connection cable M12 socket			
	2.0 m	EVC939	\$76.74
	5.0 m	EVC940	\$152.43
	2.0 m	EVC941	\$76.74
	5.0 m	EVC942	\$152.43
Connection cable with terminating resistor 120 Ω, M12 socket			
	2.0 m	EVC957	\$88.62
	5.0 m	EVC958	\$164.30
	2.0 m	EVC959	\$88.62
	5.0 m	EVC960	\$175.75
	10.0 m	EVC961	\$261.82
Connection cable M12 connector / M12 socket			
	1.0 m	EVC947	\$88.62
	2.0 m	EVC948	\$107.06
	5.0 m	EVC949	\$181.68

Type	Description	Order no	Price
Connection cable M12 connector / M12 socket			
	1.0 m	EVC950	\$88.62
	2.0 m	EVC951	\$107.06
	5.0 m	EVC952	\$181.68
Connection cable M12 connector / M12 socket			
	1.0 m	EVC953	\$88.62
	2.0 m	EVC954	\$107.06
	5.0 m	EVC955	\$181.68
	10.0 m	EVC956	\$265.64
Connection cable with terminating resistor 120 Ω, M12 connector / M12 socket			
	2.0 m	EVC962	\$118.93
	5.0 m	EVC963	\$193.13
	10.0 m	EVC964	\$277.08
Connection cable with terminating resistor 120 Ω, M12 connector / M12 socket			
	2.0 m	EVC965	\$118.93
	5.0 m	EVC966	\$193.13
	10.0 m	EVC967	\$277.08

- 1 When a major Australian wine group set out to build a new winery located remotely from their technical support team, a key requirement was for operation with limited on-site technical support. IO-Link was chosen for the tank farm temperature control and waste water control systems to provide remote monitoring and diagnostics, as well as sensor parameter back up to enable technical support requirements to be handled remotely. The use of IP69K IO-Link modules installed close to the sensors and valves in the tank farm simplified the installation and reduced cabling costs.



- 2 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.





- 3** New Zealand state of the art food processing plant employs EtherCAT IO-Link Masters to continuously monitor the level of peanut hoppers using O1D Lasers.



- 4** In 2021 Tetra Pak (NZ) designed, built and commissioned a new state of the art processing and packaging plant for Goodman Fielder (MeadowFresh dairy products) in Christchurch.

Parts supplied to date:

- 107x AL1303 8x port Profi-Net IO-Link masters designed for use in washdown areas.
- 11x AL1900 8x port Profi-Net IO-Link masters panel mounted
- 35x PI27xx hygienic Pressure transmitters
- 7x LDL201 hygienic Conductivity transmitters
- 56xEVF ethernet F&B industry, M12-M12 jumper cables
- 200+EVT F&B industry, M12-M12 jumper cables





Product Index

IFM ARTICLE NUMBER & PAGE NUMBER

AC1146	118	AL1122	10	CR1083	122	DTI515	119	E11552	33	E20724	53
AC1147	118	AL1123	11	CR1152	121	DTM425	124	E11553	33	E20744	53
AC1154	118	AL1300	10	CR1203	121	DV1001	77	E11588	35	E20870	57
AC1212	116	AL1301	11	CR1300	123	DV1002	77	E11601	35	E20873	60
AC1253	116	AL1302	10	CR1301	123	DV1003	77	E11797	50	E20874	60
AC1254	116	AL1303	11	CR2040	122	DV1004	77	E11799	50	E20935	54
AC1256	116	AL1320	10	CR2041	122	DV1300	76	E11801	50	E20938	55
AC1257	116	AL1321	11	CR2042	122	DV1310	76	E11807	28	E20940	58
AC1258	116	AL1322	10	CR2051	122	DV1500	76	E11898	66	E20946	54
AC1412	116	AL1323	11	CR2052	122	DV1510	76	E11912	50	E20950	53
AC1421	116	AL1330	10	CR2530	122	DV1520	76	E11913	50	E20951	53
AC1422	116	AL1331	11	CR2532	122	DV1530	76	E11950	28	E20956	54
AC1424	116	AL1332	10	CR711S	121	DV2120	76	E11975	50	E21076	71
AC2218	117	AL1333	11	CR720S	121	DV2121	76	E11976	50	E21079	61
AC2250	117	AL1340	10	CR721S	121	DV2130	76	E11977	50	E21081	53
AC2251	117	AL1341	11	DD0203	46	DV2131	76	E11978	50	E21085	58
AC2256	117	AL1342	10	DD2503	46	DV2300	76	E11979	50	E21110	58
AC2257	117	AL1343	11	DF1100	14	DV2310	76	E11980	50	E21111	71
AC2410	117	AL1400	10	DF1208	14	DV2500	76	E11981	50	E21112	71
AC2411	117	AL1402	10	DF1210	14	DV2510	76	E11982	50	E21113	71
AC2412	117	AL1420	10	DF1212	14	DV2520	76	E12166	77	E21133	61
AC2451	117	AL1422	10	DF1214	14	DV2530	76	E12167	77	E21140	10
AC2452	117	AL1900	10	DF1216	14	DX2022	78	E12169	28	E21159	61
AC2457	117	AL1920	10	DF1220	14	DX2041	78	E12281	28	E21171	61
AC2459	117	AL1930	10	DF2101	14	DX2042	78	E12282	28	E21206	57
AC2466	117	AL1940	10	DF2208	14	DX2045	78	E12360	28	E21211	58
AC2490	117	AL1970	10	DF2210	14	DX2055	78	E12402	29	E21212	58
AC2729	117	AL2203	11	DF2212	14	E10013	28	E12403	29	E21224	61
AC2750	117	AL2205	11	DF2214	14	E10137	28	E12404	29	E21248	61
AC2752	117	AL2221	11	DF2216	14	E10210	28	E12408	35	E21268	55
AC2900	116	AL2225	11	DF2220	14	E10735	39	E12514	10	E21269	55
AC2904	116	AL2230	11	DF3100	14	E10736	40	E12517	45	E21270	55
AC2910	116	AL2240	11	DF3110	14	E10737	42	E12519	45	E21271	55
AC2950	11	AL2241	11	DF3200	14	E10751	37	E12520	45	E21272	55
AC2951	11	AL2303	10	DF3210	14	E10753	37	E12521	45	E21275	55
AC3003	117	AL2321	10	DI5027	46	E10880	48	E12522	45	E21291	53
AC3200	117	AL2325	10	DI5029	46	E11033	49	E12523	45	E21298	53
AC3201	117	AL2330	10	DI6001	46	E11067	35	E12524	45	E23000	64
AC3220	117	AL2340	10	DL0203	78	E11194	35	E12542	10	E23001	64
AC3221	117	AL2341	10	DL2503	78	E11230	28	E12569	44	E23002	64
AC3226	117	AL2400	10	DN0220	78	E11231	28	E12573	44	E23007	64
AC3251	117	AL2605	10	DN1022	15	E11232	28	E12613	14	E30002	87
AC3256	117	AL3000	10	DN1030	15	E11293	35	E12614	14	E30009	92
AC3257	117	AL3001	11	DN1031	15	E11295	35	E12628	44	E30010	87
AC5005	117	AL3050	10	DN4011	15	E11311	28	E12674	44	E30013	94
AC6001	11	AL3051	11	DN4012	15	E11416	30	E12675	48	E30016	107
AC515A	118	AL200S	10	DN4013	15	E11417	30	E12676	48	E30017	102
AC009S	118	ANT430	119	DN4014	15	E11418	30	E12677	48	E30047	107
AC010S	118	ANT431	119	DN4032	15	E11419	30	E12689	15	E30050	87
AC015S	118	ANT512	119	DN4033	15	E11420	30	E12724	45	E30055	89
AC030S	118	ANT513	119	DN4034	15	E11421	30	E12766	44	E30057	87
AC422S	116	CR0032	122	DN4234	15	E11422	30	E12767	44	E30058	87
AC432S	118	CR0033	122	DP1213	13	E11423	30	E12768	44	E30073	107
AC507S	118	CR0401	122	DP1222	13	E11424	30	E12769	44	E30094	87
AIK050	10	CR0403	122	DP1223	13	E11425	30	E12770	44	E30122	87
AL1060	15	CR0411	122	DP2122	46	E11426	30	E12771	44	E30123	87
AL1100	10	CR0421	122	DP2200	13	E11427	30	E20004	53	E30124	87
AL1101	11	CR0431	122	DP2302	13	E11428	30	E20005	53	E30128	87
AL1102	10	CR0451	122	DTC510	124	E11429	30	E20454	54	E30130	87
AL1103	11	CR0452	122	DTE102	119	E11430	30	E20716	55	E30131	87
AL1120	10	CR1077	121	DTE103	119	E11550	33	E20717	58	E30132	115
AL1121	11	CR1082	122	DTI513	119	E11551	33	E20722	54	E30133	87



Product Index

IFM ARTICLE NUMBER & PAGE NUMBER

E30140	87	E40199	97	E61440	47	EBT009	31	EVC109	26	EVC645	30
E30141	87	E40213	97	E61441	47	EBT012	31	EVC117	26	EVC646	30
E30143	87	E40214	97	E61442	47	EC0701	124	EVC118	26	EVC706	27
E30144	107	E40215	97	E70096	118	EC0702	124	EVC133	26	EVC707	27
E30391	15	E40216	97	E70354	116	EC2112	125	EVC134	26	EVC708	27
E30399	87	E40217	97	E70377	116	EC2114	125	EVC140	26	EVC709	27
E30400	87	E40227	97	E70581	118	EC2121	121	EVC141	33	EVC710	23
E30401	87	E40230	97	E70585	118	EIO104	13	EVC142	33	EVC715	23
E30402	94	E40231	97	E70587	118	EIO330	13	EVC143	33	EVC719	27
E30407	104	E40234	97	E70588	118	ENC01A	32	EVC144	33	EVC720	27
E30419	84	E40240	97	E70598	118	ENC02A	32	EVC145	33	EVC721	27
E30420	87	E40249	98	E73008	35	ENC03A	32	EVC146	33	EVC722	27
E30421	87	E40258	99	E73009	35	ENC04A	32	EVC148	30	EVC725	27
E30429	78	E40259	99	E74000	118	ENC05A	32	EVC150	34	EVC726	27
E30430	15	E40260	99	E74002	118	ENC06A	32	EVC151	34	EVC727	27
E30435	87	E40263	99	E74003	118	EVC001	23	EVC152	34	EVC759	23
E30443	15	E43000	90	E74005	118	EVC002	23	EVC153	34	EVC767	29
E30444	12	E43003	90	E74010	118	EVC003	23	EVC154	34	EVC810	25
E30446	13	E43004	90	E74013	118	EVC004	23	EVC155	34	EVC811	25
E30500	109	E43006	90	E74200	118	EVC005	23	EVC175	26	EVC812	25
E33201	87	E43016	90	E74210	118	EVC006	23	EVC177	24	EVC813	25
E33202	87	E43202	92	E74220	118	EVC007	30	EVC189	28	EVC814	25
E33208	87	E43203	92	E74406	118	EVC008	30	EVC190	28	EVC815	25
E33209	87	E43204	92	E74416	118	EVC009	30	EVC196	63	EVC816	25
E33212	87	E43205	92	E80021	71	EVC010	26	EVC197	24	EVC817	25
E33213	87	E43207	92	E80370	119	EVC011	26	EVC198	24	EVC843	13
E33401	89	E43208	92	E80371	119	EVC012	15	EVC199	24	EVC847	71
E33402	89	E43209	92	E80383	119	EVC013	26	EVC201	28	EVC848	71
E33601	94	E43210	92	E84016	15	EVC014	26	EVC202	28	EVC893	12
E33701	87	E43211	92	E84036	15	EVC015	26	EVC265	34	EVC894	12
E33702	87	E43212	92	E89060	77	EVC016	26	EVC266	34	EVC895	12
E33712	87	E43213	92	E89061	77	EVC017	26	EVC267	34	EVC896	12
E33713	87	E43214	92	E89065	77	EVC018	26	EVC268	34	EVC897	12
E35010	107	E43216	92	E89066	77	EVC019	26	EVC269	34	EVC898	36
E35020	107	E43217	92	E89067	77	EVC025	26	EVC342	26	EVC899	36
E35030	107	E43300	104	E89080	77	EVC026	26	EVC387	34	EVC900	36
E35050	107	E43301	104	E89208	12	EVC027	26	EVC423	23	EVC901	36
E37340	87	E43302	89	E2D101	61	EVC028	26	EVC431	32	EVC902	36
E37350	87	E43303	89	E2D118	65	EVC029	26	EVC432	32	EVC903	36
E37411	107	E43311	108	E2D202	71	EVC056	28	EVC433	32	EVC904	12
E37421	107	E43312	108	E2D500	71	EVC057	28	EVC434	32	EVC905	12
E37431	107	E43313	89	E2D501	71	EVC058	28	EVC435	32	EVC906	12
E37511	107	E43334	92	E2D506	71	EVC059	28	EVC436	32	EVC907	12
E37521	107	E43340	92	E3D103	66	EVC070	24	EVC467	34	EVC908	12
E37600	107	E43341	92	EBC016	35	EVC071	24	EVC501	33	EVC909	12
E37610	107	E43342	92	EBC020	35	EVC072	24	EVC502	33	EVC910	36
E37620	107	E43345	92	EBC022	35	EVC073	23	EVC518	34	EVC911	36
E37630	107	E43346	92	EBC024	35	EVC074	23	EVC535	115	EVC912	36
E37640	107	E43347	92	EBC028	35	EVC075	23	EVC536	115	EVC913	36
E40096	99	E43348	92	EBC032	35	EVC076	24	EVC539	29	EVC914	36
E40099	99	E43353	92	EBC034	35	EVC077	24	EVC540	29	EVC915	36
E40107	99	E43375	89	EBC035	35	EVC078	24	EVC542	29	EVC916	36
E40114	107	E43376	89	EBC036	35	EVC079	24	EVC543	29	EVC917	36
E40119	100	E43383	89	EBC112	31	EVC080	24	EVC545	29	EVC918	36
E40134	99	E43406	13	EBC113	31	EVC081	24	EVC546	29	EVC919	36
E40178	97	E43900	49	EBC114	31	EVC082	23	EVC548	29	EVC920	36
E40179	97	E60022	47	EBC116	31	EVC083	23	EVC549	29	EVC921	36
E40180	98	E60034	47	EBC117	12	EVC084	23	EVC556	24	EVC922	36
E40189	97	E60035	47	EBF006	31	EVC086	23	EVC561	24	EVC923	36
E40191	98	E60066	47	EBF008	31	EVC087	23	EVC562	24	EVC924	12
E40192	98	E60067	47	EBF009	31	EVC088	23	EVC563	29	EVC926	12
E40193	98	E61438	47	EBF012	31	EVC103	26	EVC591	24	EVC927	12
E40195	103	E61439	47	EBT006	31	EVC108	26	EVC644	30	EVC928	12



Product Index

IFM ARTICLE NUMBER & PAGE NUMBER

EVC930	12	EVF064	23	EVF558	12	EVT061	28	EVT438	23	IFT202	39
EVC932	12	EVF067	23	EVF559	12	EVT062	28	EVT441	29	IFT203	39
EVC933	12	EVF071	24	EVF560	12	EVT063	28	EVT442	29	IFT204	39
EVC934	12	EVF072	24	EVF565	25	EVT064	23	EVT443	29	IFT205	39
EVC935	12	EVF073	24	EVF566	25	EVT066	23	EY3004	63	IFT216	39
EVC939	36	EVF092	23	EVF567	25	EVT067	23	EY3013	63	IFT240	39
EVC940	36	EVF094	23	EVF568	25	EVT068	23	EY3099	63	IFT258	39
EVC941	36	EVF122	33	EVF569	25	EVT069	30	EY5053	63	IFW200	39
EVC942	36	EVF123	33	EVF570	25	EVT071	24	EY5054	63	IG0005	40
EVC943	36	EVF124	33	EVF571	25	EVT072	24	G1501S	75	IG0011	40
EVC944	36	EVF125	33	EVF572	25	EVT073	24	G1502S	73	IG0062	41
EVC945	36	EVF126	33	EVM001	23	EVT088	24	G2001S	73	IG0097	40
EVC946	36	EVF127	33	EVM002	23	EVT090	24	GF854S	75	IG0303	41
EVC947	36	EVF128	33	EVM003	23	EVT092	23	GG711S	75	IG0344	40
EVC948	36	EVF129	33	EVM004	23	EVT093	23	GG854S	75	IG5533	40
EVC949	36	EVF134	34	EVM005	23	EVT094	23	GG855S	75	IG5596	40
EVC950	36	EVF135	34	EVM006	23	EVT095	23	GI854S	75	IG5602	40
EVC951	36	EVF136	34	EVM007	30	EVT104	23	GI855S	75	IG5806	40
EVC952	36	EVF137	34	EVM008	30	EVT109	26	I7R21S	43	IG5813	41
EVC953	36	EVF138	34	EVM009	30	EVT122	33	IE5257	38	IG5841	40
EVC954	36	EVF139	34	EVM010	23	EVT123	33	IE5287	38	IG5842	40
EVC955	36	EVF140	34	EVM011	30	EVT124	33	IE5288	38	IG5953	40
EVC956	36	EVF141	34	EVM012	23	EVT125	33	IE5295	38	IG5954	40
EVC957	36	EVF329	32	EVM014	23	EVT126	33	IE5319	38	IG6119	40
EVC958	36	EVF330	32	EVM018	23	EVT127	33	IE5338	38	IG6616	40
EVC959	36	EVF331	32	EVM019	23	EVT128	33	IE5340	38	IG510A	41
EVC960	36	EVF332	32	EVM021	33	EVT129	33	IE5379	38	IG512A	41
EVC961	36	EVF445	26	EVM022	33	EVT131	30	IE5391	38	IGC232	40
EVC962	36	EVF479	23	EVM023	33	EVT132	30	IE5392	38	IGC233	40
EVC963	36	EVF480	27	EVM028	34	EVT134	34	IEC201	38	IGC260	40
EVC964	36	EVF481	27	EVM029	34	EVT135	34	IEC202	38	IGM200	41
EVC965	36	EVF482	27	EVM030	34	EVT136	34	IE5200	38	IGM201	41
EVC966	36	EVF483	27	EVM031	34	EVT137	34	IE5201	38	IGM204	41
EVC967	36	EVF484	23	EVM036	24	EVT138	34	IF0003	39	IGM205	41
EVC01E	28	EVF485	27	EVM037	24	EVT139	34	IF0187	39	IGM206	41
EVC05E	28	EVF486	27	EVM038	24	EVT140	34	IF0311	39	IGS204	40
EVF001	23	EVF490	27	EVM039	23	EVT141	34	IF5538	39	IGS208	40
EVF002	23	EVF491	27	EVM040	23	EVT144	34	IF5580	39	IGS212	40
EVF003	23	EVF492	27	EVM041	23	EVT145	34	IF5936	39	IGS213	40
EVF004	23	EVF493	27	EVM065	23	EVT146	34	IF5937	39	IGS232	40
EVF005	23	EVF494	27	EVM089	26	EVT235	24	IF6124	39	IGS233	40
EVF006	23	EVF495	27	EVM090	26	EVT236	32	IF503A	39	IGS234	40
EVF007	105	EVF496	27	EVT001	23	EVT237	32	IFC229	39	IGS235	40
EVF008	105	EVF503	26	EVT002	23	EVT238	32	IFC246	39	IGS236	40
EVF009	105	EVF518	12	EVT003	23	EVT239	32	IFC278	39	IGS237	40
EVF010	24	EVF519	12	EVT004	23	EVT266	32	IFM204	39	IGS240	40
EVF011	24	EVF520	12	EVT005	23	EVT267	32	IFM205	39	IGS252	40
EVF012	24	EVF521	12	EVT006	23	EVT268	32	IFM206	39	IGS287	41
EVF013	23	EVF522	12	EVT007	30	EVT269	32	IFM208	39	IGS290	41
EVF014	23	EVF528	12	EVT008	30	EVT274	34	IFM213	39	IGS292	41
EVF015	23	EVF529	12	EVT009	30	EVT327	24	IFS204	39	IGS300	41
EVF040	26	EVF530	12	EVT010	24	EVT343	23	IFS205	39	IGS306	41
EVF041	26	EVF531	12	EVT011	24	EVT350	24	IFS206	39	IGT002	41
EVF042	26	EVF532	12	EVT012	24	EVT359	26	IFS240	39	IGT200	41
EVF043	26	EVF533	12	EVT013	23	EVT382	29	IFS242	39	IGT202	41
EVF044	26	EVF534	12	EVT014	23	EVT383	29	IFS244	39	IGT203	41
EVF045	26	EVF549	12	EVT040	26	EVT384	29	IFS248	39	IGT205	41
EVF046	26	EVF550	12	EVT041	26	EVT385	29	IFS256	39	IGT206	41
EVF047	26	EVF551	12	EVT042	26	EVT386	29	IFS297	39	IGT213	41
EVF048	26	EVF552	12	EVT043	26	EVT387	29	IFS299	39	IGT241	41
EVF049	26	EVF553	12	EVT044	26	EVT388	29	IFS304	39	IGT247	41
EVF050	26	EVF554	12	EVT045	26	EVT418	23	IFS306	39	IGT249	41
EVF051	26	EVF557	12	EVT060	28	EVT420	24	IFT200	39	IGT258	41



Product Index

IFM ARTICLE NUMBER & PAGE NUMBER

IGT260	41	KI5087	49	MK5110	51	O6E303	55	O6S305	55	OID254	60
IGT261	41	KI6000	49	MK5111	51	O6E305	55	O6S701	54	OPD100	65
IIS751	42	KQ1000	48	MK5117	51	O6E306	55	O6T201	54	OPD101	65
IIS860	42	KQ1001	48	MK5128	51	O6E307	55	O6T202	54	OY5100	63
IIS910	42	KQ5100	49	MK5138	51	O6E309	55	O6T206	54	OY5103	63
IIS973	42	KQ6002	49	MK5157	51	O6E701	54	O6T215	54	OY5106	63
IIS974	42	KQ6005	49	MK5177	51	O5E51A	58	O6T216	54	OY5110	63
IIS04A	42	KT6100	49	MK5186	51	O5G500	58	O6T301	55	OY5113	63
IIC219	42	KT6101	49	MK5208	51	O5H200	58	O6T305	55	OY5116	63
IIM200	124	KT6300	49	MK5310	51	O5H201	58	O6T309	55	OY0015	73
IIM201	124	KT6301	49	MK5311	51	O5H500	58	OBF500	53	OY002S	73
IIM208	42	LDH290	107	MK5900	51	O6H201	54	OBF501	53	OY003S	73
IIS206	42	LDH292	107	MK501A	51	O6H202	54	OCF500	53	OY004S	73
IIS226	42	LDL100	108	MK502A	51	O6H300	55	OCF501	53	OY005S	73
IIS227	42	LDL101	108	MN200S	74	O6H301	55	OF5010	57	OY006S	73
IIS234	42	LDL200	109	MN202S	74	O6H302	55	OF5012	57	OY007S	73
IIS236	42	LDL201	109	MN203S	74	O6H303	55	OF5021	57	OY008S	73
IIS246	42	LI5131	90	MN205S	74	O6H307	55	OF5022	57	OY009S	73
IIS281	42	LI5132	90	MN500S	74	O6H309	55	OF5027	57	OY010S	73
IIS282	42	LI5133	90	MN502S	74	O6H310	55	OGD580	59	OY041S	73
IIS284	42	LI5134	90	MN503S	74	O6H317	55	OGD581	59	OY042S	73
IIT202	42	LMC100	89	MN505S	74	O6H701	54	OGD582	59	OY043S	73
IIT204	42	LMC110	89	MN700S	74	O6H702	54	OGD583	59	OY044S	73
IIT228	42	LMC400	89	MN701S	74	O8H200	53	OGD592	59	OY045S	73
IIT244	42	LMC500	89	MN702S	74	O8H206	53	OGE200	57	OY046S	73
IM0010	43	LMC510	89	MR0100	51	O8H212	53	OGE280	56	OY047S	73
IM0011	43	LMT100	89	MR0101	51	O8H214	53	OGE281	56	OY048S	73
IM5020	43	LMT102	89	MR0119	51	O8H216	53	OGE300	57	OY049S	73
IM5115	43	LMT104	89	MR0121	51	O8H218	53	OGE301	57	OY050S	73
IM5116	43	LMT105	89	MR0901	51	O8H222	53	OGE380	56	OY111S	72
IM5117	43	LMT110	89	MVQ101	44	O8H270	53	OGE381	56	OY112S	72
IM5119	43	LMT121	89	MVQ201	44	O8H271	53	OGE700	59	OY113S	72
IM5123	43	LR2050	92	N0534A	45	O8H272	53	OGH200	57	OY114S	72
IM5126	43	LR2750	92	NN5008	45	O8H273	53	OGH280	56	OY115S	72
IM5135	43	LR3000	92	O5C500	58	O2I500	70	OGH281	56	OY116S	72
IN0073	43	LR3020	92	O1D100	61	O2I501	70	OGH283	56	OY411S	73
IN0100	45	LR7000	92	O1D101	61	O5K500	58	OGH300	57	OY454S	73
IN0108	45	LR7020	92	O1D102	61	O3M250	123	OGH312	57	PA3024	86
IN5129	43	LR8000	92	O1D105	61	O3M251	123	OGH380	56	PA3026	86
IN5208	43	LR8020	92	O1D106	61	O3M950	123	OGH381	56	PA3027	86
IN5224	45	LR9020	92	O1D120	61	O5P500	58	OGH500	57	PA3028	86
IN5225	45	LT3023	90	O1D155	61	O6P201	54	OGH580	56	PA3029	86
IN5323	45	LT8022	90	O1D300	61	O6P202	54	OGH700	59	PA3589	86
IN5327	45	LT8023	90	O2D500	69	O6P203	54	OGH701	59	PG2450	82
IQ2000	43	LT8024	90	O2D502	69	O6P205	54	OGP200	57	PG2451	82
IQ2002	43	LW2120	93	O2D504	69	O6P206	54	OGP280	56	PG2452	82
IQ2003	43	LW2720	93	O2D520	69	O6P207	54	OGP281	56	PG2453	82
IQ2008	43	ME5010	37	O2D522	69	O6P301	55	OGP282	56	PG2454	82
IQ2009	43	ME5011	37	O2D524	69	O6P302	55	OGP300	57	PG2455	82
IQ2010	43	MFH200	124	O2D917	71	O6P305	55	OGP301	57	PG2456	82
IQ2013	43	MFS209	37	O2D930	71	O6P306	55	OGP500	57	PG2457	82
IW5058	43	MFS211	37	O3D300	66	O6P309	55	OGP700	59	PG2458	82
IW5064	43	MFT202	37	O3D303	66	O6P310	55	OGS200	57	PG2489	82
IY5029	38	MGS204	37	O3D310	66	O6P701	54	OGS280	56	PG2789	83
IY5036	38	MGT203	37	O3D312	66	O8P200	53	OGS300	57	PG2793	83
JD1111	46	MK5100	51	O5D100	60	O8P202	53	OGS380	56	PG2794	83
JD2120	46	MK5101	51	O5D102	60	O5P51A	58	OGS700	59	PG2795	83
JN2200	46	MK5102	51	O5D150	60	O5S500	58	OGT200	57	PG2796	83
JN2201	46	MK5103	51	O5E500	58	O6S201	54	OGT300	57	PG2797	83
KF5001	49	MK5104	51	O6E202	54	O6S202	54	OGT500	57	PG2798	83
KF5002	49	MK5105	51	O6E206	54	O6S301	55	OID200	60	PG2799	83
KG6000	49	MK5107	51	O6E301	55	O6S302	55	OID204	60	PI1703	83
KI5085	49	MK5108	51	O6E302	55	O6S303	55	OID250	60	PI1704	83



Product Index

IFM ARTICLE NUMBER & PAGE NUMBER

PI1705	83	PN2094	84	QMC132	20	SM2100	97	TCC261	104	TT1281	103
PI1706	83	PN2096	84	QMC133	20	SM4000	97	TCC281	104	TT1291	103
PI1707	83	PN2097	84	QMC206	20	SM4100	97	TCC291	104	TT2081	103
PI1708	83	PN2099	84	QMI001	20	SM6100	97	TCC501	104	TT2291	103
PI1709	83	PN2160	84	QMP010	15	SM6120	97	TCC511	104	TT3081	103
PI1714	83	PN2169	84	QMR001	20	SM7100	97	TCC531	104	TT3291	103
PI1715	83	PN7070	84	QMS001	20	SM7120	97	TCC541	104	TT5081	103
PI1717	83	PN7071	84	QVA200	20	SM8100	97	TCC811	104	TU3105	124
PI1718	83	PN7092	84	RA3110	47	SM8120	97	TCC831	104	TU4105	124
PI1789	83	PN7093	84	RB3100	47	SM9000	97	TCC911	104	TV7105	107
PI2203	83	PN7094	84	RB3500	47	SM9100	97	TCC931	104	TV7405	107
PI2204	83	PN7096	84	RM9000	123	SN0150	101	TD2531	105	TW2000	107
PI2205	83	PN7097	84	RMA300	47	SR0127	101	TD2541	105	UGT501	64
PI2206	83	PN7099	84	RMS001	47	SR2301	101	TD2801	105	UGT507	64
PI2207	83	PN7160	84	RMS002	47	SR5900	101	TD2807	105	UGT512	64
PI2209	83	PP7550	85	RMV300	47	SR5906	101	TD2811	105	UGT513	64
PI2714	83	PP7551	85	RO3100	47	SU2020	98	TD2817	105	UGT514	64
PI2715	83	PP7552	85	RO3102	47	SU2021	98	TD2831	105	UGT519	64
PI2717	83	PP7553	85	RO3110	47	SU7000	98	TD2837	105	UGT524	64
PI2789	83	PP7554	85	ROP520	47	SU8000	98	TD2841	105	UGT526	64
PI2793	83	PQ3809	86	ROP521	47	SU8020	98	TD2847	105	UGT580	64
PI2794	83	PQ3834	86	ROP522	47	SU8021	98	TK6110	107	UGT584	64
PI2795	83	PQ7809	86	ROP524	47	SU9000	98	TK7110	107	UGT590	64
PI2796	83	PQ7834	86	RUP500	47	SV4200	98	TK7460	107	UGT592	64
PI2797	83	PS3208	94	RV3100	47	SV4204	98	TM4101	103	UGT594	64
PI2798	83	PS3427	94	RV3110	47	SV5200	98	TM4411	103	UIT300	64
PI2799	83	PS4407	94	RVP510	47	SV5204	98	TM4431	103	UIT301	64
PK6520	86	PS4408	94	SA4100	99	SV7200	98	TM4441	103	UIT500	64
PK6521	86	PS4417	94	SA4300	99	SV7204	98	TM4461	103	UIT501	64
PK6522	86	PS4506	94	SA5000	99	TA1321	106	TM4511	103	UIT504	64
PK6523	86	PS4607	94	SD0523	103	TA1322	106	TM4531	103	UIT507	64
PK6524	86	PS317A	94	SD1540	103	TA1327	106	TM4541	103	VE5004	115
PK7520	86	PT0507	86	SD2500	103	TA2105	106	TM4599	103	VKV021	115
PK7521	86	PT0517	86	SD5500	103	TA2115	106	TM4801	103	VKV022	115
PK7522	86	PT5400	85	SD5600	103	TA2135	106	TM4811	103	VNA001	115
PK7524	86	PT5401	85	SD6500	103	TA2145	106	TM4831	103	VNB001	115
PL5400	85	PT5402	85	SD6600	103	TA2212	106	TM4841	103	VOS001	115
PL5401	85	PT5403	85	SD8500	103	TA2232	106	TM9950	103	VSA001	115
PL5402	85	PT5404	85	SD8600	103	TA2242	106	TN2405	107	VSE003	115
PL5412	85	PT5412	85	SD9500	103	TA2262	106	TN2415	107	VSE100	110
PL5423	85	PT5414	85	SF2405	101	TA2292	106	TN2435	107	VSE150	115
PM1503	82	PT5415	85	SF3405	101	TA2405	106	TN2445	107	VSE151	115
PM1504	82	PT5443	85	SF5200	101	TA2415	106	TP3231	103	VSE153	115
PM1505	82	PT5460	85	SF5700	101	TA2417	106	TP3232	103	VSM101	115
PM1506	82	PT5494	85	SF5701	101	TA2435	106	TP3237	103	VSP001	115
PM1514	82	PT5504	124	SF5702	101	TA2437	106	TP9237	103	VSP003	115
PM1515	82	PT5601	124	SF5703	101	TA2445	106	TR2439	103	VSP004	115
PM1543	82	PT5701	124	SF5704	101	TA2447	106	TR7439	103	VSP01A	115
PM1703	82	PU8701	124	SF6200	101	TA2502	106	TS2229	103	VVB001	114
PM1704	82	PV8000	85	SF220A	101	TA2511	106	TS2239	103	ZC0020	103
PM1705	82	PV8001	85	SI5000	100	TA2512	106	TS2256	103	ZC0075	103
PM1706	82	PV8002	85	SI5001	100	TA2517	106	TS2451	103	ZJF001	10
PM1707	82	PV8003	85	SI5002	100	TA2531	106	TS2452	103	ZZ0628	44
PM1708	82	PV8004	85	SI5004	100	TA2532	106	TS2453	103	ZZ0629	44
PM1709	82	PV8023	85	SI5006	100	TA2537	106	TS2454	103	ZZ0630	44
PM1714	82	PV8060	85	SI5010	100	TA2542	106	TS2659	103	ZZ1060	63
PM1715	82	PY9060	84	SI5100	100	TA2802	107	TS2759	103		
PM1717	82	PY9070	84	SI6600	100	TA2812	107	TS5289	103		
PM1789	82	QA0011	77	SI6700	100	TA2832	107	TS5951	103		
PN2070	84	QHA210	20	SI6800	100	TA2842	107	TS285A	103		
PN2071	84	QM9102	21	SL0301	103	TA3105	124	TT0281	103		
PN2092	84	QM9103	20	SL5101	103	TA3115	124	TT0291	103		
PN2093	84	QMC003	20	SM2000	97	TCC201	104	TT1081	103		

Acting sustainably is the motto

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



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 fulfil 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 third Sustainability report (reporting year 2021) which contains a comprehensive sustainability programme in addition to our strategic approaches and measures.

- Climate neutrality by 2030
- in our operating business
- 100% green electricity since 2020
- Long-term CO₂ savings in the area of business travel and journeys
- 100% of our suppliers signed the ifm suppliers code of conduct
- Acting sustainably is the motto - and in all respects. This is already stated in the corporate philosophy, first written down in 1990:

The 3 pillars of sustainability



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."*



Visit our website:

www.ifm.com/au

Compliments of your Australia Sales and Support Team!

ifm – close to you!



Position sensors



Sensors for motion control



Industrial imaging



Safety technology



Process sensors



Industrial communication



IO-Link



Identification systems



Condition monitoring systems



Systems for mobile machines



Connection technology



Software



Power supplies



Accessories

Melbourne - ifm efector pty ltd
Suite 3 - 745 Springvale Road
Mulgrave Vic 3170
Phone 1300 365 088
Email sales.au@ifm.com



State Offices:

SOUTH AUSTRALIA

ifm efector pty ltd
 Suite 22-T8 Tonsley 6 MAB
 Eastern Promenade, Tonsley
 Adelaide SA 5042

Phone 1300 365 088

Fax 1300 365 070

NEW SOUTH WALES

ifm efector pty ltd
 Quad 1, Level 1, Suite 1.01
 8 Parkview Drive
 Sydney Olympic Park,
 Sydney NSW 2127

Phone 1300 365 088

Fax 1300 365 070

QUEENSLAND

ifm efector pty ltd
 Suite 5, 3368 Pacific Highway,
 Springwood
 Brisbane QLD 4125

Phone 1300 365 088

Fax 1300 365 070

TASMANIA

ifm efector pty ltd
 2nd Floor, 45 Brisbane Street
 Launceston, TAS 7250

Phone 1300 365 088

Fax 1300 365 070

WESTERN AUSTRALIA

ifm efector pty ltd
 Allendale Square, Ground Floor
 Plaza, 79 St Georges Terrace
 Perth WA 6000

Phone 1300 365 088

Fax 1300 365 070

Disclaimer:

While every effort has been made to ensure the accuracy and usefulness of this document please note that contents including prices may change without notice. You are advised to refer to www.ifm.com/au for comprehensive technical data, current prices and our Australia terms and conditions of trade. No liability will be accepted for errors, omissions, amendments to product specifications or prices. Prices shown are AU\$, ex. ifm's Mulgrave store and exclude freight charges and GST.