



Pressure sensors

Flexibility without compromise



ifm.com/cnt/pressure

Contents

Product overview	04 – 05
For industrial applications	
With display	06 – 09
Without display	10 – 13
Flush mount	14 – 15
For pneumatic applications	
With display	16 – 17
For mobile applications	
Without display	18 – 19
For hygienic applications	
With display	20 – 23
Without display	24 – 25
Accessories	26 – 27
Calibration service	28 – 29
Sensor applications	30 – 31
moneo	32 – 33
Online shop	34 – 35

For high and low pressure areas

Solutions for the optimum system pressure monitoring

Admittedly, we have no influence on the weather. But with our pressure sensors, we make sure that at least in your system the weather is always good. Whether in icy cold or boiling heat, whether vacuum or 600 bar: with our sensors, you always have the pressure conditions of your medium under control - and if you like, you can also keep a permanent eye on them on site.

In industrial environments, in hygienic environments or in mobile machines: the locations where our sensors are used are just as varied as their external characteristics: you need a display on site? We're up for it! You are looking for a pressure sensor with minimum space requirements?

No problem! Extreme measuring accuracy, fast response times, digital communication via IO-Link, maximum robustness? Four times yes!

Whatever your requirements for the ideal sensor: we fulfil them. We are flexible, so you don't have to be.

No compromise, no concessions: these are the pressure sensors from ifm. When will you upgrade your system to a perfect pressure area?

5 YEARS
Warranty
on ifm products

The right product for your
application
[ifm.com/cnt/
pressure-application](https://ifm.com/cnt/pressure-application)



Description	Sensor type	Measuring range [bar]	Medium temperature [°C]
For industrial applications			
With display	PN	-1...600	-25...80
	PE	-1...250	-25...80
	PG24	-1...400	-25...80
Without display	PA	-1...600	-25...90
	PK	0...400	-25...80
	PU / PT	-1...600	-40...90
	PS	0...1	-10...85
	PV	-1...600	-40...90
Flush mount	PL54	0...400	-25...90
	PL15	-1...160	-25...110
For pneumatic applications			
With display	PQS / PQC	-1...16	0...60
For mobile applications			
Without display	PT / PU	0...600	-40...125
For hygienic applications			
With display	PG17	-1...25	-25...150
	PG27 / 28	-1...25	-25...125
	PI	-1...160	-25...200
Without display	PM	-1...100	-25...150

All our products have CE, cULus, CPA, UKCA as standard

Integrated temperature measurement	Media	Approvals	Page
–	Oils, water, gases	UL	06 - 07
–	Water, gases	UL, DNV, Reg31, KTW/W270	06 - 07
–	Oils, water	CRN	08 - 09
–	Oils, water	ATEX II 3D, DIN EN 50155 / IEC 60571	12 - 13
–	Oils, water, gases	CRN	10 - 11
–	Oils, gases	DNV, E1	10 - 11
–	Water	ATEX, IECEx, DNV	12 - 13
√	Oils, gases	UL	10 - 11
–	Water, viscous media	UL	14 - 15
√	Water, viscous media	UL	
–	Gases	UL	16 - 17
–	Oils, gases	UL, DNV, E1	18 - 19
√	Water, gases, viscous media	FCM, FDA, EHEDG, EC 1935/2004, 3A	20 - 21
–	Water, gases, viscous media	FCM, FDA, EHEDG, NSF, Reg31, ACS, EC 1935/2004, 3A, CRN	20 - 21
√	Water, gases, viscous media	UL, FCM, FDA, EHEDG, NSF, Reg31, ACS, EC 1935/2004, 3A, CRN	22 - 23
√	Water, gases, viscous media	UL, FCM, FDA, EHEDG, NSF, Reg31, ACS, EC 1935/2004, 3A, CRN	24 - 25



For industrial applications, with display



Type PN pressure sensor
- FKM seal for hydraulic applications

Accessories:



For the process adapter accessories please see pages 26 - 27

Factory setting Measuring range Relative pressure [bar]	Process connection / order no.			
	G ¼ female	G ¼ male	G ¼ female	G ¼ male
	2 switching outputs		1 switching output and 1 analogue output 4...20 mA / 0...10 V	
Metal measuring cell				
0...600	PN7160	PN7560	PN3160	PN3560
0...400	PN7070	PN7570	PN3070	PN3570
0...250	PN7071	PN7571	PN3071	PN3571
Ceramic-capacitive measuring cell				
0...160	PN7012	PN7512	–	–
0...100	PN7092	PN7592	PN3092	PN3592
0...40	PN7043	PN7543	–	–
0...25	PN7093	PN7593	PN3093	PN3593
0...16	PN7014	PN7514	–	–
0...10	PN7094	PN7594	PN3094	PN3594
0...6	PN7015	PN7515	–	–
0...2.5	PN7096	PN7596	PN3096	PN3596
0...1	PN7097	PN7597	PN3097	PN3597
0...0.25	–	–	–	–
-1...1	PN7099	PN7599	–	–
-1...0	–	–	PN3129	PN3529

Robust:

The ideal measuring cell for every pressure range.

Red/green ranges:

"Good range" or switching states can be identified quickly via the display colour.

Quick setting:

Easy to use to VDMA standard via 3 pushbuttons.

Optimum orientation:

Process connection rotatable by approx. 345°.

Universal application areas:

High overload protection and protection rating IP67 in pressure ranges of -1...600 bar.



G 1/4 female	G 1/4 male
2 switching outputs or 1 switching and 1 analogue output 4...20 mA / 0...10 V, scalable	
PN2160	PN2560
PN2070	PN2570
PN2071	PN2571
PN2012	PN2512
PN2092	PN2592
PN2043	PN2543
PN2093	PN2593
PN2014	PN2514
PN2094	PN2594
PN2015	PN2515
PN2096	PN2596
PN2097	PN2597
PN2098	PN2598
PN2099	PN2599
-	-

**Type PE pressure sensor**

- EPDM seal for water applications

Factory setting Measuring range Relative pressure [bar]	Process connection / order no.	
	G 1/4 female	G 1/4 male
2 switching outputs or 1 switching output and 1 analogue output 4...20 mA / 0...10 V, scalable		
Ceramic-capacitive measuring cell		
0...250	PE2091	PE2591
0...100	PE2092	PE2592
0...25	PE2093	PE2593
0...10	PE2094	PE2594
0...2.5	PE2096	PE2596
-1...1	PE2099	PE2599

Versions with NPT thread also available.



**Pressure sensors
in applications:**
ifm.com/cnt/cva



For industrial applications, with display



Type PG pressure sensor

- Rotatable display with LED bar graph for switch point indication
- Output functions programmable via LED display and optical touch fields

Factory setting measuring range relative pressure [bar]	Order no.
1 switching output and 1 analogue output 4...20 mA / 20...4 mA, scalable	
Process connection G½ male • Display bar / psi	
0...400	PG2450
0...250	PG2451
0...100	PG2452
0...25	PG2453
0...10	PG2454
0...4	PG2455
0...2.5	PG2456
-1...1	PG2409
0...1	PG2457
0...0.25	PG2458
0...0.1	PG2489

Robust:

Overload-resistant ceramic-capacitive measuring cells with long-term stability.

Unambiguous:

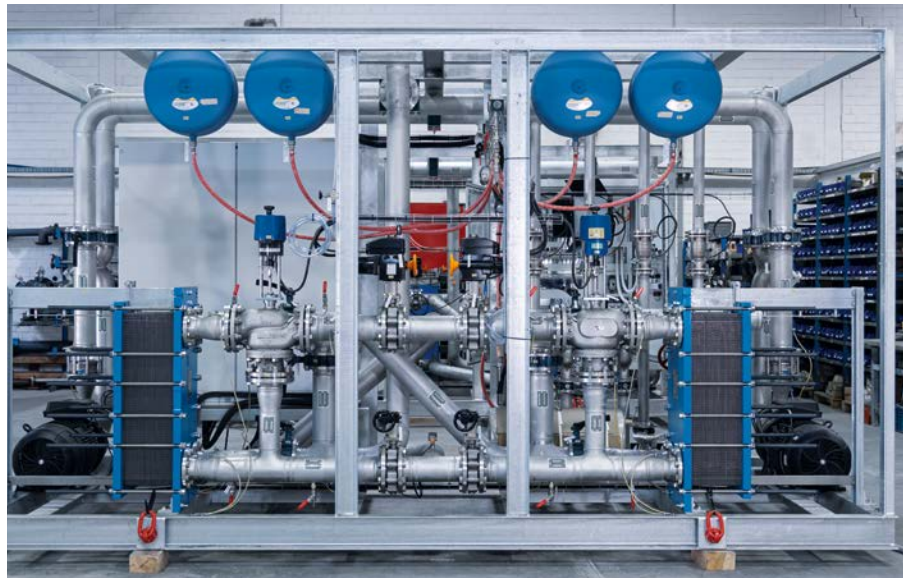
Digital manometer with clearly visible pointer display and LED ring.

Strong form:

Stainless steel housing for use in harsh industrial environments.

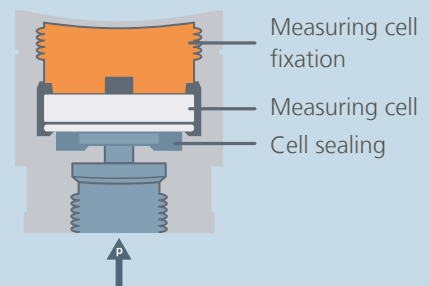
Flexible:

Depending on the mounting position the display can be aligned manually.



**Good to know –
the ceramic measuring cell**

- Resistant to dynamic pressure surges and cavitation
- Resistant to aggressive and abrasive media
- Minimum temperature influence on the ceramic measuring cell
- Dry measuring cell without filling liquid for high process reliability
- Ceramic does not age or fatigue



**Overview of ifm's pressure
measuring cell technologies:**

ifm.com/cnt/pressure-measurement-cells

For industrial applications, without display



Type PU / PT pressure transmitter

- Pressure transmitter with fixed measuring range
- Fast response time of 1 ms
- Stainless steel measuring cell without any seal

Accessories:



Matching valve plugs E10058 and E30447 at ifm.com

Measuring range Relative pressure [bar]	Order no.		
Connector	M12	M12	Valve plug type A
Analogue output	4...20 mA	0...10 V	4...20 mA
0...600	PT5460	PU5460	PT5060
0...400	PT5400	PU5400	PT5000
0...250	PT5401	PU5401	PT5001
0...160	PT5412	PU5412	PT5012
0...100	PT5402	PU5402	PT5002
0...60	PT5423	PU5423	PT5023
0...40	PT5443	PU5443	PT5043
0...25	PT5403	PU5403	PT5003
0...16	PT5414	PU5414	PT5014
0...10	PT5404	PU5404	PT5004
0...6	PT5415	PU5415	PT5015
-1...10	PT5494	–	–

Space-saving:

Compact sensors and pressure transmitters without display.

Easy:

Pressure transmitters with fixed ranges; pressure switches to be set via setting ring (type PK) or via IO-Link (type PV).

Focussed:

Ideal for industrial applications, such as hydraulic applications.

Robust:

Stainless steel measuring cell without any seal.

**Type PK pressure sensor**

- Easy switch point adjustment via two setting rings allowing optimum read-out
- Mechanical locking prevents inadvertent switch point manipulation

Measuring range Relative pressure [bar]	Order no.		
	2x NO	1x NO	2 switching outputs NC / NO complementary
0...400	PK7520	PK5520	PK6520
0...250	PK7521	PK5521	PK6521
0...100	PK7522	PK5522	PK6522
0...25	PK7523	PK5523	PK6523
0...10	PK7524	PK5524	PK6524

**Type PV pressure sensor**

- Programmable pressure sensor with switching outputs
- Stainless steel measuring cell without any seal
- IO-Link
- Type Pv8xxx medium temperature via IO-Link

Measuring range Relative pressure [bar]	Order no.		
	2 x switching outputs, IO-Link		For pneumatic applications
0...600	PV7060	PV8060	—
0...400	PV7000	PV8000	—
0...250	PV7001	PV8001	—
0...100	PV7002	PV8002	—
0...60	PV7023	PV8023	—
-1...0	—	—	PV7829
-1...1	—	—	PV7809
-1...25	PV7003	PV8003	—
-1...10	PV7004	PV8004	PV7804



For industrial applications, without display



Type PA pressure transmitter

- Pressure transmitter with fixed measuring range
- High resistance to overload due to ceramic measuring cell

Measuring range Relative pressure [bar]	Order no.		
Process connection	G 1/4 female	G 1/4 male	G 1/4 female
Analogue output	4...20 mA		0...10 V
0...600	PA3060	–	PA9060
0...400	PA3020	PA3520	PA9020
0...250	PA3021	PA3521	PA9021
0...100	PA3022	PA3522	PA9022
0...25	PA3023	PA3523	PA9023
0...10	PA3024	PA3524	PA9024
0...2.5	PA3026	PA3526	PA9026
-1...1	–	PA3509	–
-1...0	PA3029	–	PA9029
0...1	PA3027	–	PA9027
0...0.25	PA3028	PA3528	PA9028
0...0.1	–	PA3589	–

Accessories:



For suitable process adaptors for type PS please see pages 26 - 27

Compact:

Pressure transmitters without display and with analogue output.

Robust:

Overload-resistant ceramic-capacitive measuring cells with long-term stability (type PA).

Application-specific:

Designs for level measurement (type PS), absolute pressure measurement (type PT05).

**Type PS submersible pressure transmitter**

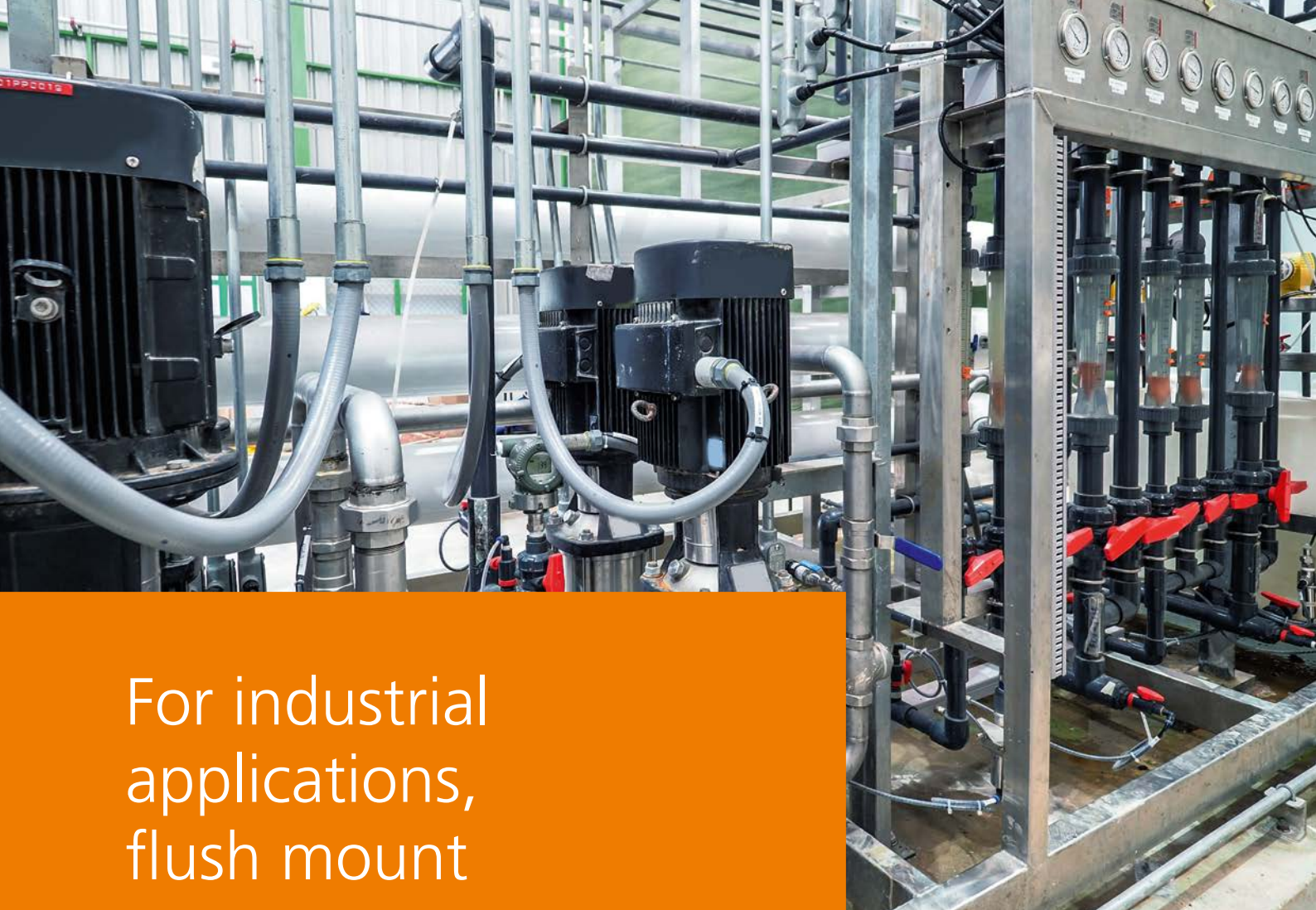
- For level measurement
- PUR or FEP cable for high resistance to media
- Version with ATEX approval for group I cat. M1 and group II, category 1G and 1D
- Pressure compensation via internally vented cable

**Type PT pressure transmitter**

- For absolute pressure measurement
- Transmitter with fixed measuring range
- Stainless steel measuring cell without any seal

Measuring range absolute pressure [bar]	Order no.
Analogue output 4...20 mA	
0...10	PT0504
0...4	PT0505
0...1.6	PT0517
0...1	PT0507

Measuring range Relative pressure [bar]	Cable	Order no.
For standard applications, CE approval		
0...0.25	PUR, 5 m	PS3208
0...0.6	PUR, 10 m	PS3407
0...0.6	PUR, 15 m	PS3427
0...0.6	PUR, 30 m	PS3607
0...1	PUR, 15 m	PS3417
0...1	PUR, 30 m	PS3617
For high resistance to media, CE approval		
0...0.25	FEP, 5 m	PS4208
0...0.25	FEP, 10 m	PS4408
0...0.6	FEP, 10 m	PS4407
0...0.6	FEP, 20 m	PS4506
0...1	FEP, 15 m	PS4417
0...1	FEP, 30 m	PS4607
For hazardous areas, CE, Ex, GL approvals		
0...0.25	FEP, 5 m	PS308A
0...0.6	FEP, 10 m	PS307A
0...1	FEP, 15 m	PS317A



For industrial applications, flush mount



Type PL54 pressure sensor

- 4...20 mA transmitter.
- 1/4" diaphragm seal technology

Measuring range relative pressure [bar]	Order no.
Process connection G1/4 male	
0...400	PL5400
0...250	PL5401
0...160	PL5412
0...100	PL5402
0...60	PL5423

Good to know:

FKM sealing material supplied, EPDM and FFKM under accessories at ifm.com



Pressure sensors in applications
ifm.com/cnt/envirofalk

Compact:

Very slim housing, suitable even for the smallest dosing heads.

Accurate & precise:

High measuring accuracy $< \pm 0.5 \%$ and precise repeatability $< \pm 0.05 \%$.

Resistant:

High shock and vibration resistance

**Type PL15 pressure sensor**

- Flush design and flexible sealing concept
- $\frac{1}{2}$ " ceramic measuring cell
- 2-/3-wire selection
- Medium temperature transmission via IO-Link

Factory setting measuring range [bar]	Order no.
G $\frac{1}{2}$ process connection	
0...160	PL1512
0...100	PL1502
0...60	PL1523
0...40	PL1543
0...25	PL1503
0...16	PL1514
0...10	PL1504
0...6	PL1515
0...2.5	PL1506
0...1	PL1507



The right choice for restricted spaces and viscous media:
ifm.com/cnt/pl15



For pneumatic applications,
with display



Type PQS, PQC pressure sensor

- Full graphic TFT display
- Installation guide
- Programmable switching and analogue output
- Convenient operation via buttons or parameter setting via IO-Link
- Flexible mounting concept

Measuring range [bar]	Outputs	Order no.
		G ¹ / ₈
-1...10	2 switching outputs DC PNP/NPN	PQS812
-1...1	2 switching outputs DC PNP/NPN	PQS816
-1...0	2 switching outputs DC PNP/NPN	PQS819
-1...10	1 switching output + 1 analogue output, 4...20 mA / 0...10 V / 1...5 V	PQC812
-1...1	1 switching output + 1 analogue output, 4...20 mA / 0...10 V / 1...5 V	PQC816
-1...0	1 switching output + 1 analogue output, 4...20 mA / 0...10 V / 1...5 V	PQC819



reddot winner 2024

Experience the advantages in the virtual click dummy



The pressure sensor for pneumatic applications:
ifm.com/cnt/pqcube

Robust:

Robust design - reliable measurement and process values

Transparent:

Everything in sight thanks to the full graphic TFT display

Unambiguous:

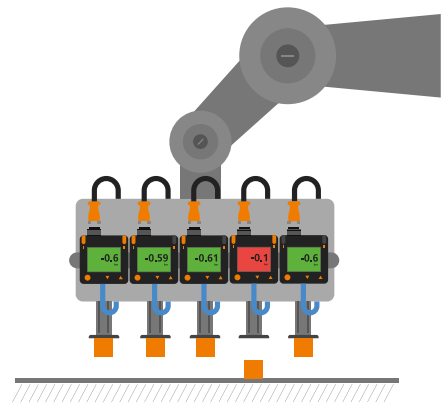
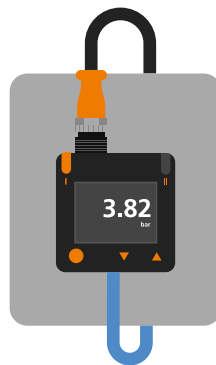
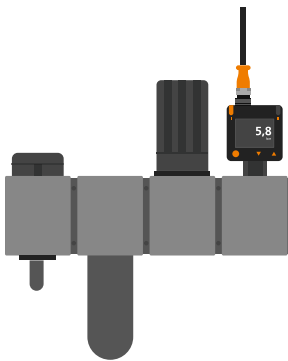
Alternating red/green display for clear indication of acceptable ranges

Intuitive:

Installation is quick and easy thanks to the installation guide.



Application possibilities



Compressed air treatment

The treatment of compressed air is an essential factor for the functionality and service life of pneumatic systems. Thanks to the sophisticated mounting concept, the pressure sensor can be installed in your maintenance unit without the need for adapters, making it an ideal component for compressed air treatment.

Via the full graphic 1" display you can see at all times whether the process values are within the target range.

Monitoring and measurement of system pressure

For smooth operation of your plant the PQ Cube monitors the system pressure reliably in a measuring range from -1 up to 16 bar.

Operation and set-up of the sensor is quick and easy via the 3 keys and the intuitive menu navigation. Set-up is supported by the installation wizard, which is available in 9 different languages.

Vacuum and gripping applications

In vacuum and gripping applications characterised by rapid changes in direction, the PQ Cube always remains functional thanks to its robustness. What is more, the red/green colour change of the display provides a clear visualisation of the process value. In this way, the plant operator can immediately see whether the object has been picked up correctly or not.

When installing the sensors you can choose between wall, DIN rail and panel mounting.

For mobile applications, without display



Type PT/PU pressure transmitter
- For mobile applications

Process connection	Measuring range Relative pressure [bar]	Order no.		
Connector		M12	DEUTSCH	AMP
Process connection G 1/4 male • Analogue output 4...20 mA				
	0...600	PT5560	PT5760	PT5660
	0...400	PT5500	PT5700	PT5600
	0...250	PT5501	PT5701	PT5601
	0...100	PT5502	PT5702	PT5602
	0...25	PT5503	PT5703	PT5603
	0...10	PT5504	PT5704	PT5604
Process connection G 1/4 male • Analogue output 4...20 mA, E1 approval				
	0...600	PT560E	PT760E	—
	0...400	PT500E	PT700E	—
	0...250	PT501E	PT701E	—
	0...100	PT502E	PT702E	—
	0...25	PT503E	PT703E	—
	0...10	PT504E	PT704E	—

Compact:

Pressure transmitters without display and with analogue output.

Robust:

Stainless steel measuring cell without any seal; shock and vibration resistant.

Flexible:

Deutsch, AMP or M12 connector.

Temperature-resistant:

-40...125 °C medium temperature.

Fast:

Response time 2 ms.

Application-specific:

Ideal for use in mobile hydraulic applications.

IP67

IP69K



Measuring range Relative pressure [bar]	Order no.	
Connector	M12	DEUTSCH
Process connection G 1/4 male • Analogue output 0.5...4.5 V		
0...600	PU8560	PU8760
0...400	PU8500	PU8700
0...250	PU8501	PU8701
0...160	–	PU8712
0...100	PU8502	PU8702
0...60	PU8523	–
0...40	–	PU8743
0...25	PU8503	PU8703
0...10	PU8504	PU8704
Process connection G 1/4 male • Analogue output 0.5...4.5 V, E1 approval		
0...600	PU560E	–
0...400	PU500E	–
0...250	PU501E	–
0...100	PU502E	–
0...60	PU502E	–
0...25	PU504E	–
0...10	PU504E	–

Measuring range Relative pressure [bar]	Order no.	
Connector	DEUTSCH	AMP
Process connection G 1/4 male • Analogue output 0...10 V		
0...600	PU5760	PU5660
0...400	PU5700	PU5600
0...250	PU5701	PU5601
0...100	PU5702	PU5602
0...25	PU5703	PU5603
0...10	PU5704	PU5604

For hygienic applications, with display

Type PG1 pressure sensor

- Clear LED ring
- Colour-customisable operating ranges, thresholds and trend displays
- Robust ceramic measuring cell
- Compensation of dynamic temperature changes
- Permanent 150°C medium temperature
- Very high resolution thanks to 32-bit process value transmission via IO-Link



The electronic manometer in detail
ifm.com/cnt/PG1

Factory setting Measuring range [bar]	Order no.
0...0.25	PG1708
0...1	PG1707
-1...1	PG1709
0...1.6	PG1717
0...2.5	PG1706
0...4	PG1705
0...6	PG1715
0...10	PG1704
0...16	PG1714
0...25	PG1703
0...40	PG1743



Layout option

Choose from up to 8 colours to visualise your working ranges and flexibly adjust the display layout of your electronic manometer.

Hygienic:

Ingress resistance, materials and approvals comply with hygienic requirements.

Robust:

Overload-resistant ceramic-capacitive measuring cells with good long-term stability.

Versatile:

Variable process connections.

Precise:

High total accuracy of 0.2%.

Suitable for CIP/SIP:

High temperature resistance and electronic temperature compensation.



Type PG2 pressure sensor

- Rotatable display with LED bar graph for switch point indication
- Output functions programmable via LED display and optical touch fields



Factory setting Measuring range Relative pressure [bar]	Process connection / order no.	
	G1 male Aseptoflex Vario	G1 A male Sealing cone
1 switching output and 1 analogue output 4...20 mA / 20...4 mA, scalable		
Indication bar / psi		
0...25	PG2793	PG2893
0...10	PG2794	PG2894
0...4	PG2795	PG2895
0...2.5	PG2796	PG2896
-1...1	PG2799	PG2899
0...1	PG2797	PG2897
0...0.25	PG2798	PG2898
0...0.1	PG2789	PG2889

Accessories:



For suitable process adapters please see pages 26 - 27

For hygienic applications, with display

Type PI1 pressure sensor

- Programmable analogue output in 2-wire operation
- Up to 150°C medium temperature
- High 32-bit IO-Link resolution



Type PI22/PI23 pressure sensor

- Pressure transmitter with clamp process connection
- Up to 200°C medium temperature



Factory setting Measuring range Relative pressure [bar]	Process connection / order no.			
	G1 male Aseptoflex Vario	G1 male Sealing cone	Clamp 1,5" (200°)	Clamp 2" (200°)
1 switching output and 1 analogue output 4...20 mA / 20...4 mA, scalable				
Indication bar / psi				
0...160	–	PI1612	–	–
0...100	–	PI1602	–	–
0...25	PI1703	PI1803	PI2203	PI2303
0...16	PI1714	PI1814	–	–
0...10	PI1704	PI1804	PI2204	PI2304
0...6	PI1715	PI1815	–	–
0...4	PI1705	PI1805	PI2205	PI2305
0...2.5	PI1706	PI1806	PI2206	PI2306
0...1.6	PI1717	PI1817	–	–
-1...1	PI1709	PI1809	PI2209	PI2309
0...1	PI1707	PI1807	PI2207	PI2307
0...0.4	PI1718	PI1818	–	–
0...0.25	PI1708	PI1808	–	–
0...0.1	PI1789	PI1889	–	–

Hygienic:

Thanks to the stainless steel housing and protection rating IP69K, the sensor meets all the requirements of the food industry.

Robust:

Pressure peak and overload-resistant ceramic measuring cell with diagnostic function.

Versatile:

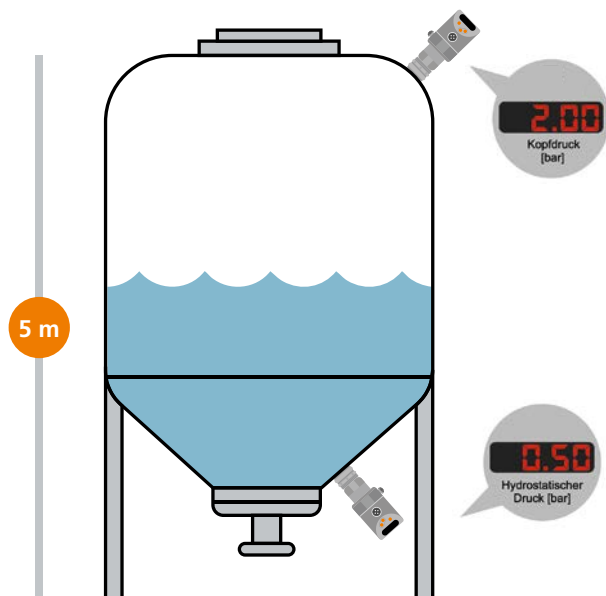
Variable process connections.

Precise:

Accurate and repeatable pressure measurement with 32-bit resolution.

Suitable for CIP/SIP:

Fast compensation of dynamic temperature changes.



The level is determined via the hydrostatic pressure the medium in the tank exerts on the sensor's measuring cell. In pressure tanks, the head pressure can also be determined to ensure a reliable measurement.



Find out more
about the PI
pressure sensor:
ifm.com/cnt/pi

Accessories:



For easy welding(-in) operations

The special adapters represent an innovative solution allowing for a quick and simple welding operation to be carried out in the tank.

For adapters see pages 26 - 27



Find out more
about the welding
adapter for tanks:
ifm.com/fs/E43919

For hygienic
applications,
without display



Type PM pressure transmitter

- Programmable analogue output
- Accuracy 0.2 %

Factory setting Measuring range Relative pressure [bar]	Process connection / order no.		
	G1 male Aseptoflex Vario	G1 male Sealing cone	TriClamp DN25...DN40 (1...1.5") DIN32676 (ISO 2852)
Analogue output 4...20 mA, scalable			
0...100	–	PM1602	–
0...40	–	–	PM1143
0...25	PM1703	PM1603	PM1103
0...16	PM1714	PM1614	PM1114
0...10	PM1704	PM1604	PM1104
0...6	PM1715	PM1615	PM1115
0...4	PM1705	PM1605	PM1105
0...2.5	PM1706	PM1606	PM1106
0...1.6	PM1717	PM1617	PM1117
-1...1	PM1709	PM1609	–
0...1	PM1707	PM1607	PM1107
0...0.4	PM1718	PM1618	PM1118
0...0.25	PM1708	PM1608	PM1108
0...0.1	PM1789	PM1689	–

Precise and documented:

0.2 % total accuracy documented in a freely downloadable factory calibration certificate.

Hygienic:

Ingress resistance, materials and approvals comply with hygienic requirements.

Robust:

Overload-resistant ceramic-capacitive measuring cells with long-term stability.

Suitable for CIP/SIP:

High temperature resistance and electronic temperature compensation.



IP68

IP69K



Type PM pressure transmitter

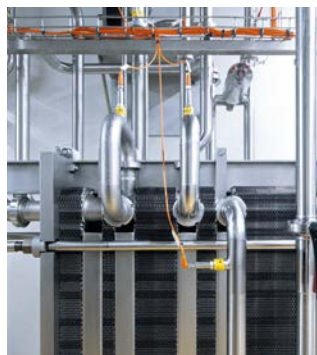
- First G½ pressure sensor with hygienic approval for easy connection to small pipes
- Accuracy 0.5 %
- Medium temperature via IO-Link



Factory setting Measuring range Relative pressure [bar]	Process connection / order no.
	G½ male / sealing cone
Analogue output 4...20 mA, scalable, IO-Link	
0...40	PM1543
0...25	PM1503
0...16	PM1514
0...10	PM1504
0...6	PM1515
0...4	PM1505
0...2.5	PM1506
0...1	PM1507

Accessories:

Zero point teach button for PM1xxx
Order no. **E30425**



PM pressure transmitters in applications
ifm.com/cnt/wildberg

Process adapters and mounting accessories for pressure sensors

Process adapters



Device connection	Process connection	Material	Order no.	For sensor type
Adapters for industrial applications				
G ¼	G ¼	High-grade stainless steel (316L / 1.4404), FKM	E30143	PN, PA with internal thread
	G ½	Stainless steel (303 / 1.4305), FPM (Viton)	E30050	
	G ½	Stainless steel (303 / 1.4305), FPM (Viton)	E30000	
	G ½	High-grade stainless steel (316L / 1.4404), FPM (Viton)	E30002	
	M20 x 1.5	Stainless steel (303 / 1.4305), FPM (Viton)	E30010	
	SAE 7/16-20	High-grade stainless steel (316L / 1.4404), FPM (Viton)	E30087	
	¼" NPT	High-grade stainless steel (320S17 / 1.4571)	E30058	
	½" NPT	High-grade stainless steel (316L / 1.4404)	E30133	
	DN16	Stainless steel (303 / 1.4301)	E30065	G¼ with external thread
	R¼	1.0718 (12L13)	E30427	
	G½	High-grade stainless steel (316Ti/1.4571), FPM (Viton)	E30135	
R⅛	R⅛ rotatable	Nickel-plated brass	E37350	PQC / PQS

Accessories



Description	Order no.	For sensor type
Accessories for industrial applications		
Damping screw for PN with G¼ internal thread	E30419	PN
Protective cap	E30420	
Angle bracket	E30421	
Label tag	E30422	
Damping screw for sensors with G¼ external thread	E30057	PN, PK, PA35xx
Siphon G¼	E30140	PK
Siphon G½	E30141	
Protective cap	E30094	
Cable clamp fastener	E30399	PS
Filter element	E30400	
Splitter box with ventilation and terminal block	E30401	
Additional weight	E30402	
Connector QS-G 1/8-6 for standard tube with Ø 6 mm	E30076	PQ
Connector QS-G 1/8-8 for standard tube with Ø 8 mm	E30077	
Mounting set	E30574	
DIN rail adapter	E30575	
Wall mounting adapter	E30576	
Parameter setting tools		
USB IO-Link master	ZZ1060	
Memory plug, parameter memory for IO-Link sensors	E30398	
moneo configure	QMP010	

Process
adapters

Device connection	Process connection	Sealing	Order no.	Order no. with leakage port	For sensor type
High-grade stainless steel adapter (316L/1.4435) for hygienic applications					
G1 male Aseptoflex Vario	Clamp 1 - 1.5"	Sealing ring Metal to metal	E33201 E33701	E33208 –	PG27xx, PI17xx, PM17xx
	Clamp 2"	Sealing ring Metal to metal	E33202 E33702	E33209 –	
	Pipe fitting DN32 (1.25")	Sealing ring Metal to metal	E33211 E33711	– –	
	Pipe fitting DN40 (1.5")	Sealing ring Metal to metal	E33212 E33712	– –	
	Pipe fitting DN50 (2")	Sealing ring Metal to metal	E33213 E33713	– –	
	Varivent type F DN25 (1") Ø 50 mm	Sealing ring Metal to metal	E33221 E33721	E33228 –	
	Varivent type N DN40...DN150 (1.5...6") Ø 68 mm	Sealing ring Metal to metal	E33222 E33722	E33229 –	
	SMS DN40 (1.5")	Metal to metal	E33731	–	
	SMS DN50 (2")	Metal to metal	E33732	–	
	DRD flange Ø 65 mm	Sealing ring	E33242	–	
	Universal adapter Rd 52	Sealing ring	E33340	–	
	DIN11864 DN/OD33.7	Sealing ring	E33304	–	
G½	Sealing ring	E30131	–		
G1 male Sealing cone	Clamp 1 - 1.5"	Metal to metal	E33601	–	PG28xx, PI18xx, PM16xx
	Pipe fitting DN40 (1.5")	Metal to metal	E33612	–	
	Varivent type N DN40...DN150 (1.5...6") Ø 68 mm	Metal to metal	E33622	–	
High-grade stainless steel welding adapters for hygienic applications					
G1 male Aseptoflex Vario	Welding adapter Ø 50 mm	Sealing ring	E30122	E30130	PG27xx, PI17xx, PM17xx
	Welding mandrel	–	E30452	–	–
G1 male Sealing cone	Welding adapter Ø 50 mm	Metal to metal Sealing ring	E30013 E30072	– –	PG28xx, PI18xx, PM16xx
	Welding mandrel	–	E30435	–	–
Welding adapters for tanks in industrial and hygienic applications					
G ½ Sealing cone	Welding adapter Ø 85 mm	Sealing ring	–	E43918	PM15xx
	Welding adapter Ø 85 mm	Sealing ring	–	E43919	
	Welding adapter Ø 85 mm	Sealing ring	–	E43920	
G1 Aseptoflex Vario	Welding adapter Ø 85 mm	Sealing ring	–	E30528	PG17xx, PG27xx, PI17xx, PM17xx
	Welding adapter Ø 85 mm	Sealing ring	–	E30529	
	Welding adapter Ø 85 mm	Sealing ring	–	E30531	



Back to normal

ifm's calibration service ensures reliable processes and product quality

One bar is one bar, eleven degrees are eleven degrees and four-point-three litres are four-point-three litres. How nice it would be if it were always that simple. If process sensors measured as accurately and precisely throughout their lives as they did on their first day. But they don't. Over time, they become inaccurate and drift due to the constant stress. The extent to which they do so is determined and documented in the course of calibration. This deviation can then be taken into account in the control system (as long as it is still within the tolerance range), so that the temperature, pressure, flow etc. are correctly maintained until the end of the process and the quality of the product is assured.

True, precise, accurate

What exactly happens during such a calibration? Well, it is determined how true, precisely and accurately a sensor actually still fulfils its original task - measuring. True? Precise? Accurate? Isn't that the same thing? In this case: no. We can explain this in detail if you are interested in the differences between these terms. Or you can take a look at our website. There we have presented the three criteria in a comprehensible way.

Accredited competence for traceable calibration

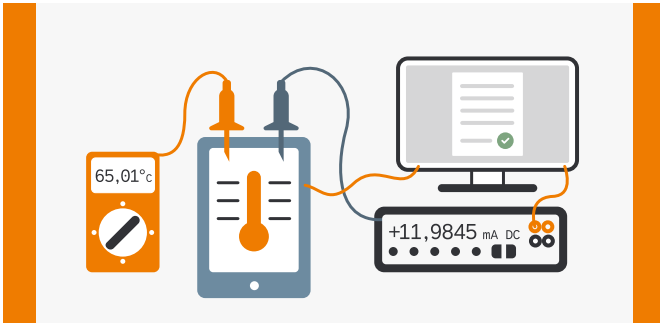
Why do we focus so much on these three criteria? Because that is our service for you. In other words: because we calibrate your ifm sensors for you and examine the measuring precision, the measuring trueness and the measuring accuracy very closely. Namely for pressure, temperature, flow and analysis

sensors. And, as an accredited laboratory, traceable to the highest standard size in the hierarchy. In Germany, for example, these are guarded by the Physikalisch-Technische Bundesanstalt (highest-ranking national authority for metrology). Professional knowledge in passing: the standard sizes are internationally valid and are still being further refined today. (If you are interested, just search the net for the Avogadro project or the Boltzmann constant.)

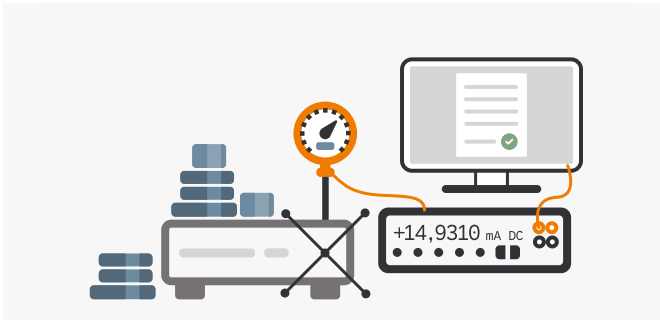
Out of tolerance? Minimal loss of time!

But before we go into further raptures and revelry about standard sizes, let's get back to our offer to you. Whenever you want to calibrate your ifm process sensor: contact us. We have the precise equipment required to accurately calibrate your sensors. Incidentally, we offer a free factory certificate for many of our process sensors even before initial delivery, which shows whether the sensors work within their specified accuracy. So you can use them in your process with peace of mind. What's more, we know our sensors and have a replacement device ready should your sensor fail the recalibration. In such a case, the downtime for you is reduced to a minimum.

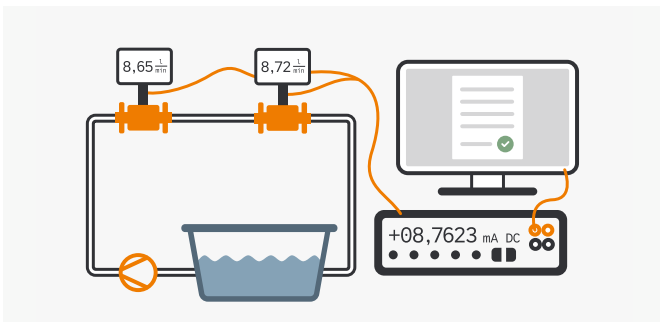
Sounds good? We think so, too. That is why we are so pleased to offer you this service.



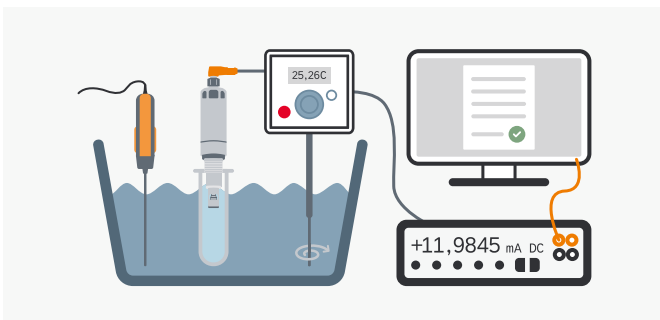
Liquid bath temperature calibration



Calibration of pressure gauges by using pressure compensators



Calibration of water flow sensors



Calibration of analytical sensors

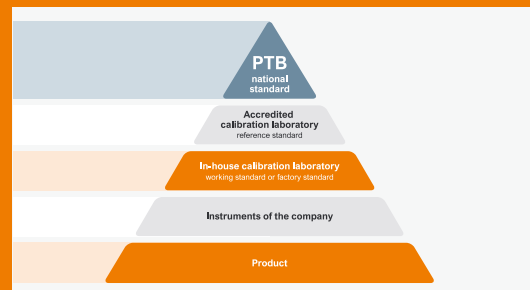


What does "calibration" mean anyway?

Calibration is the act of determining and documenting, in a traceable manner, the deviations between a measuring instrument called device under test (DUT) and a reference device called reference standard.

The result of this comparison shows the measuring deviations at different measurement points and can be provided in absolute or relative form. The regular calibration of measurement instruments ensures the precision and reproducibility of the measurement data. The reference measurement is made with a reference device.

Traceability refers to the uninterrupted chain of comparative measurements related to the measuring results of a measuring instrument and the specific, higher-ranking national standard.



Find out more about
the calibration service
ifm.com/cnt/calibration-service

Efficient monitoring of the cooling circuit

The customer relies on PG pressure sensors because they reliably transmit the pressure value to the process control system and also offer the advantages of an analogue manometer display.



ifm.com/cnt/leffek



Sensor technology in hydroelectric power plants

PN pressure sensors monitor the pressure of the coolant for a precise view of the plant condition.



ifm.com/cnt/cva





Level measurement in water treatment

In water treatment, the PI pressure sensor detects the level of an ultrapure water tank using hydrostatic pressure measurement.



ifm.com/cnt/envirofalk

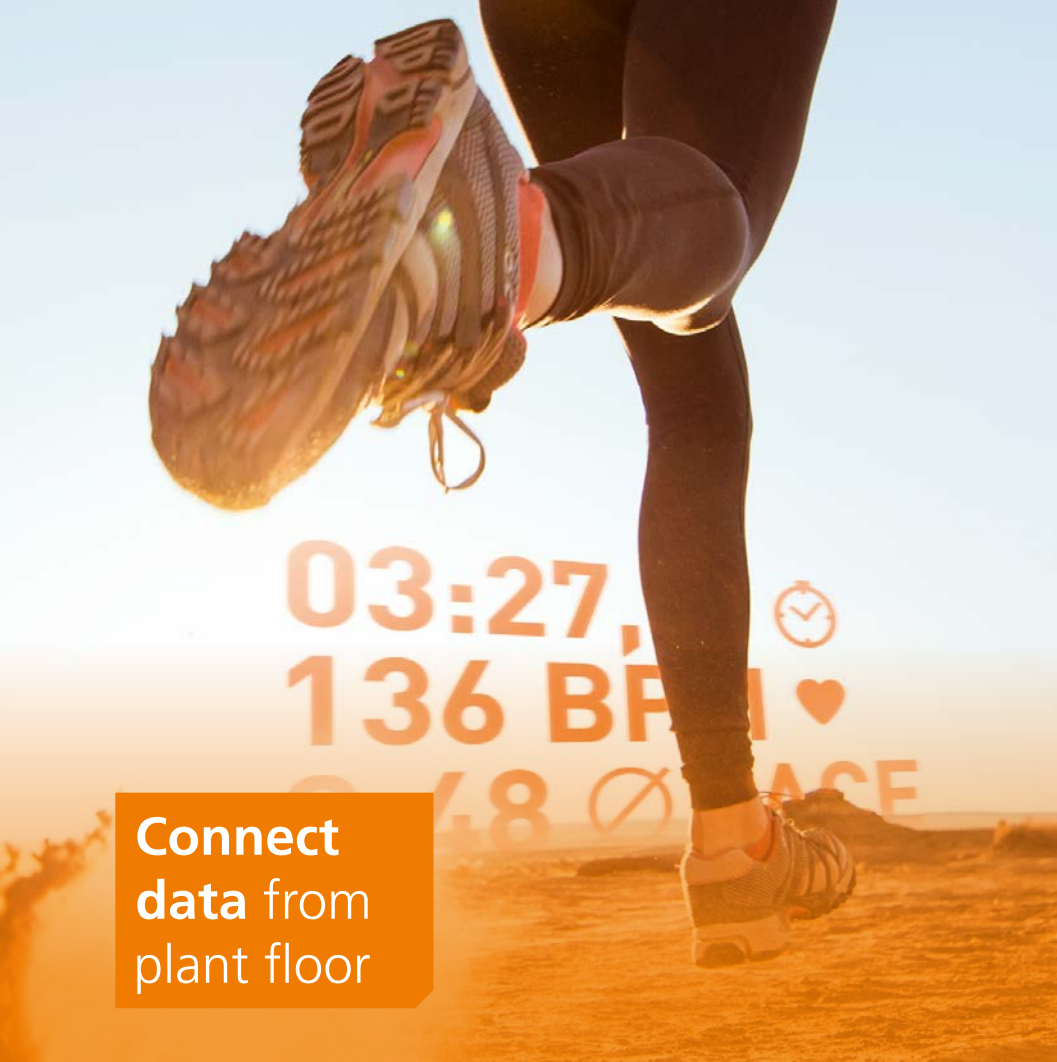


Sensor technology in cheese manufacture

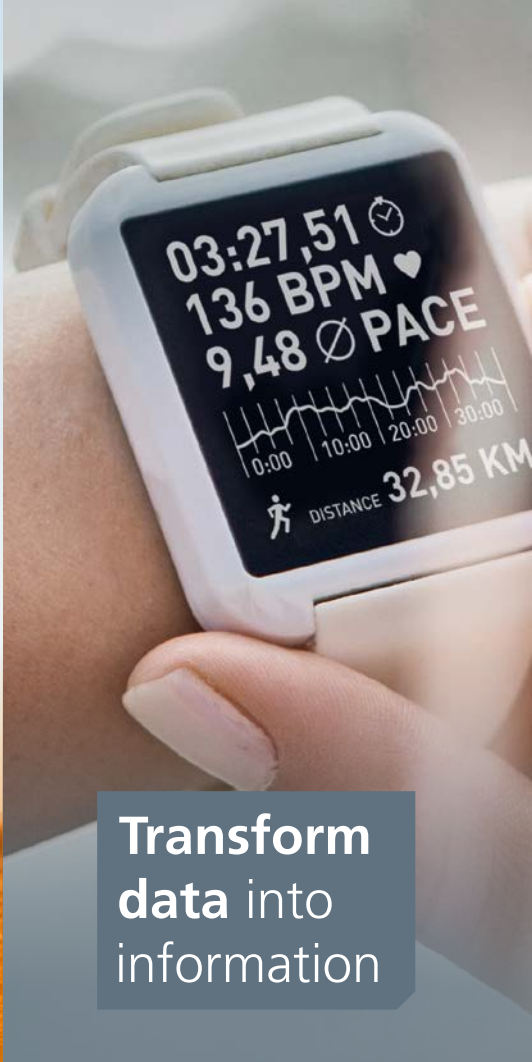
The PM15 pressure sensor monitors the pressure conditions in the heat exchanger with the aim to keep the pressures in the heated aseptic milk higher than on the opposite side where there is either fresh milk or hot water.



ifm.com/cnt/wildberg



Connect
data from
plant floor



Transform
data into
information

Utilise the full power of your data

moneo: the IIoT platform for those who care about their plants

„My pulse frequency is 45 per minute when I'm asleep and healthy. If I am ill, it is about 55. Under full exertion, my heart pumps more than three times per second. I run my home course of ten kilometres in less than 50 minutes on a good day and at a temperature of about 20°C. How do I know all that?

The fitness tracker on my wrist collects my body data and my performances on a daily basis and analyses them for me. It helps me understand my body system. I can tell at a glance whether my body can cope with the exertion or whether I'm in the red zone and overexerting.“

The sensors on my wrist make my complex human organism transparent to me. While such a thing may have been difficult to imagine in the past, it is hardly anything special for us today. Take a glance at your wrist to check how your body is doing. Just like that.

moneo: the result of a deep understanding of the machine

Monitoring the status and current condition of your machines and plants is very simple. With moneo. For more than half a century, we have had our finger on the pulse of the industry, shaping the evolution of automation. We are now distilling this expertise and in-depth understanding of all kinds of machines and plants from the OT level and combine it with the inexhaustible possibilities of digitalisation. Thanks to our IIoT platform, you can check the condition of your plant at any time. It will show you whether everything is running in the green zone or whether performance is declining, consumption values are getting out of hand or maintenance is required.



Get actionable insights

Data becomes information. Information becomes added value.

Your plant already offers the preconditions for it: sensors permanently provide data on temperature, pressure, level and object presence. In most cases, however, this data only reaches the controller. And this only accounts for about 5 per cent of the wealth of knowledge that is available. Thanks to moneo, you can easily benefit from the remaining 95 per cent. Like a fitness tracker, our IIoT platform collects the incoming data, evaluates it and generates information you can use to optimise your processes and workflows and to optimise maintenance schedules.

Never again in the red

Temperature curves, compressed air consumption, cycle times, operating hours, levels, vibration behaviour – whatever may have an influence on the **performance, production quality** and **energy efficiency** of your industrial organism, with

moneo, you will be able to act before your investments will run out of steam and before wear, lacking supplies or defects will lead to downtime or before precious energy will escape ineffectively through leaks. That is real added value. It saves money, nerves and time. You can, for example, rather invest the time you save after work to improve your best time on your 10-kilometre home run.

Do you want to understand your machines and plants better and keep them fit? Are you ready for more information, performance and efficiency?

Then start now. With moneo.



Everything the automation heart desires.

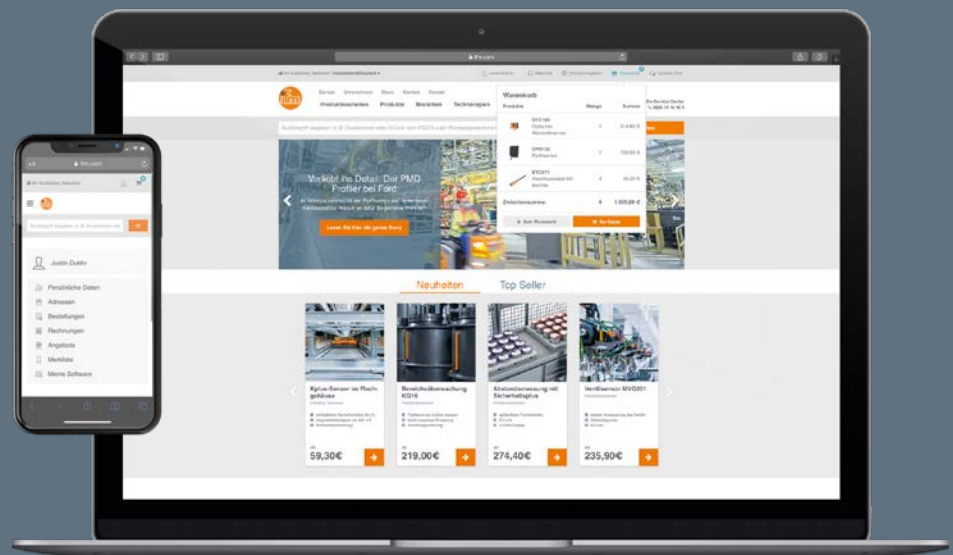
The online shop: Find more, search less.

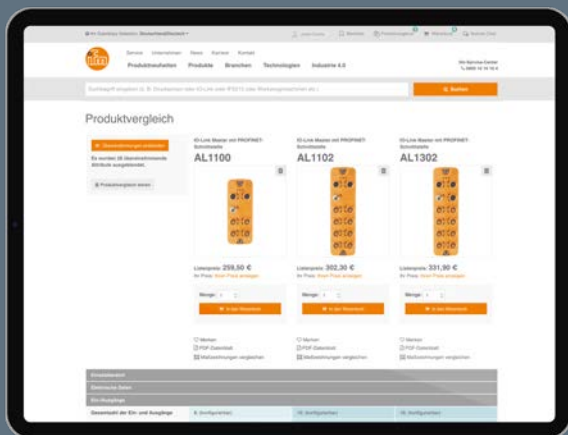
Where does efficient plant automation start? We think: when shopping! And that's why our online shop is designed to guide you to your desired product as quickly as possible. At the same time, we also want to offer you maximum service when shopping online. For example, the selectors help you to narrow down the search to the suitable product versions. In your personal my ifm account you can easily import comprehensive order lists, create your own offers in no time and convert them into an order with just one click.

Products, accessories and interesting facts

Are you looking for the suitable accessories for your product? No problem! We have compiled everything you need to know about installation, parameter setting and set-up and added it to the respective product page. Of course, in our online shop you will also find lots of interesting information about the technologies in our sensors, inspiration in the form of application reports, factory certificates for free download, and, and, and...

So if you are thinking about how to shop more efficiently, a visit to ifm.com is definitely worthwhile!





More transparency: Search for products, select, compare, get a support opinion, choose – and buy at your individual price.

More efficiency: Import order lists, create favourites, place previous orders again.

More flexibility: You decide how you pay and when we deliver. If you are in a hurry: use our express shipping.

More you: Create offers yourself, convert them into orders with one click, track shipments and status, save and retrieve invoices. my ifm – it's yours!

More future: Digitisation, Industry 4.0, finding solutions, downloading software, managing licences – all in one place.

More time: No closing times, no nasty surprises, shopping at any time, always up-to-date availability – and a reassuring 6 weeks' right of return.

