Pressure transmitter
For applications in hazardous areas
Model IS-3

for further approvals
see page 10

Applications

- Chemical, petrochemical industry
- Oil, natural gas
- Machine building

Special features

- Measuring ranges from 0 ... 0.1 to 0 ... 6,000 bar (0 ... 3 to 0 ... 15,000 psi)
- Approved for use in hazardous areas, e.g. ATEX, IECEx, FM and CSA
- Suitable for SIL 2 per IEC 61508/IEC 61511



Pressure transmitter model IS-3
Fig. left: With angular connector and flush process connection
Fig. centre: High-pressure version
Fig. right: With field case

Description

For the highest demands
The pressure transmitters of the IS-3 series have been specifically designed for the highest industrial requirements in hazardous areas and feature the common approvals, such as ATEX, IECEx, FM and CSA, as well as a SIL rating per IEC 61508 / IEC 61511 for use in the process industry.

The model IS-3 pressure transmitter is available with measuring ranges up to 6,000 bar and is suitable for applications ranging from general machine building to high-pressure applications.

Design
All wetted parts are manufactured from stainless steel and are fully welded. Internal sealing elements are completely avoided, so that the unit can be used with almost all media. The robust case is also made of stainless steel and provides a minimum ingress protection of IP65. IP68 versions are also available.

The process connections with flush diaphragm are particularly suitable for the measurement of viscous and contaminated media and ensure trouble-free pressure measurement at all times.

The optional field case of the model IS-3 enables operation in extreme environmental conditions and is resistant to acids, bases, oils and solvents. Via the field case connection integrated into the case's head, the electrical cabling can be installed quickly and easily.

Voltage supply
It is recommended that the intrinsically safe variants of the IS-3 series are powered via a suitable repeater power supply. An ideal voltage supply is offered by the intrinsically safe repeater power supply model IS Barrier, see “Accessories”.

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Measuring ranges

Gauge pressure							
bar	0 ... 0.1	0 ... 0.16	0 ... 0.25	0 ... 0.4	0 ... 0.6	0 ... 1	0 ... 1.6
	0 ... 2.5	0 ... 4	0 ... 6	0 ... 10	0 ... 16	0 ... 25	0 ... 40
	0 ... 60	0 ... 100	0 ...160	0 ... 250	0 ... 400	0 ... 600	0 ... 1,000 [1]
	1,600 [1] [2]	2,500 [1] [2]	4,000 [1] [2]	5,000 [1] [2]	6,000 [1] [2]		
psi	0 ... 3	0 ... 5	0 ... 10	0 ... 15	0 ... 20	0 ... 25	0 ... 30
	0 ... 50	0 ... 60	0 ... 100	0 ... 150	0 ... 160	0 ... 200	0 ... 250
	0 ... 300	0 ... 400	0 ... 500	0 ... 600	0 ... 750	0 ... 800	0 ... 1,000
	0 ... 1,500	0 ... 2,000	0 ... 3,000	0 ... 4,000	0 ... 5,000	0 ... 6,000	0 ... 7,500
	0 ... 8,000	0 ... 10,000 [1]	0 ... 15,000 [1]				

1) Only for instruments without flush process connection.
2) Only for instruments with ignition protection type Ex i. Not for instruments with SIL 2.

Absolute pressure							
bar	0 ... 0.25	0 ... 0.4	0 ... 0.6	0 ... 1	0 ... 1.6	0 ... 2.5	0 ... 4
	0 ... 6	0 ... 10	0 ... 16	0 ... 25			
psi	0 ... 5	0 ... 10	0 ... 15	0 ... 30	0 ... 60	0 ... 100	0 ... 160
	0 ... 200	0 ... 300					

Vacuum and +/- measuring ranges					
bar	-1 ... 0	-1 ... +0.6	-1 ... +1.5	-1 ... +3	-1 ... +5
	-1 ... +9	-1 ... +15	-1 ... +24		
psi	-15 inHg ... 0	-30 inHg ... 0	-30 inHg ... 15	-30 inHg ... 30	-30 inHg ... 60
	-30 inHg ... 100	-30 inHg ... 160	-30 inHg ... 200	-30 inHg ... 300	

Other measuring ranges on request.

Overload safety
The overpressure limit is based on the sensor element used. Depending on the selected process connection and sealing, restrictions in overload safety can result.
A higher overpressure limit will result in a higher temperature error.

Measuring ranges ≤ 25 bar (≤ 400 psi): 3-fold
Measuring ranges 40 ... 600 bar (500 ... 8,000 psi): 2-fold [1]
Measuring ranges ≥ 1,000 bar (≥ 10,000 psi): 1.15-fold

1) 1.7-fold overload safety with 1,000 psi, 1,500 psi, 4,000 psi and 6,000 psi

Output signal

Analogue signal
4 ... 20 mA

Permissible load in Ω
Model IS-3:
≤ (power supply - 10 V) / 0.02 A - (cable length in m x 0.14 Ω)

Model IS-3 with field case:
≤ (power supply - 11 V) / 0.02 A

For the test circuit signal of the IS-3 model with field case a load of ≤ 15 Ω applies

Voltage supply

Power supply U+
Model IS-3: DC 10 ... 30 V
Model IS-3 with field case: DC 11 ... 30 V

Supply and signal circuit for ignition protection type Ex i
Voltage: Ui = DC 30 V
Current: Ii = 100 mA
Power: Pi = 800 mW (for group III 750/650/550 mW)

Effective internal capacitance (version with non-detachable cable connection)
Ci ≤ 16.5 nF
Ci ≤ 16.5 nF + 0.2 nF/m

Effective internal inductance (version with non-detachable cable connection)
Li = 0 µH
Li = 0 µH + 2 µH/m

Reference conditions (per IEC 61298-1)

Temperature
15 ... 25 °C (59 ... 77 °F)

Atmospheric pressure
860 … 1,060 mbar (86 … 106 kPa/12.5 … 15.4 psig)

Humidity
45 ... 75 % r. h. (non-condensing)

Mounting position
Calibrated in vertical mounting position with process connection facing downwards.

Power supply
DC 24 V

Time response

Settling time
≤ 2 ms
≤ 10 ms for medium temperatures below -30 °C (-22 °F)

Accuracy specifications

Accuracy at reference conditions

Accuracy	
Standard	≤ ±0.50 % of span
Option	≤ ±0.25 % of span [1)]

1) Only for measuring ranges ≥ 0.25 bar (3 psi) and ≤ 1,000 bar (15,000 psi)

Including non-linearity, hysteresis, zero offset and end value deviation (corresponds to measured error per IEC 61298-2).

Non-linearity (IEC 61298-2)
≤ ±0.2 % of span BFSL

Non-repeatability
< 0.1 % of span

Mean temperature coefficient of zero point (0 ... 80 °C/32 ... 176 °F)
Measuring range ≤ 0.25 bar: ≤ ±0.4 % of span/10 K
Measuring range > 0.25 bar: ≤ ±0.2 % of span/10 K

Mean temperature coefficient of span (0 ... 80 °C/32 ... 176 °F)
≤ ±0.2 % of span/10 K

Long-term stability at reference conditions
≤ ±0.2 % of span/year

Adjustability of zero point and span
Adjustment is made using potentiometers inside the instrument.
Zero point: ±5 %
Span: ±5 %

Process connections

Process connections, standard

Standard	Thread size	Max. nominal pressure	Overload safety
EN 837	G ¼ B	1,000 bar (14,500 psi)	1,400 bar (20,300 psi)
	G ½ B	1,000 bar (14,500 psi)	1,800 bar (26,100 psi)
	G ⅜ B	1,000 bar (14,500 psi)	1,400 bar (20,300 psi)
DIN 3852-E	G ¼ A	600 bar (8,700 psi)	600 bar (8,700 psi)
	G ½ A	600 bar (8,700 psi)	600 bar (8,700 psi)
ANSI/ASME B1.20.1	¼ NPT	1,000 bar (14,500 psi)	1,500 bar (21,700 psi)
	½ NPT	1,000 bar (14,500 psi)	1,500 bar (21,700 psi)
SAE J514 E	7/16-20 UNF BOSS	600 bar (8,700 psi)	600 bar (8,700 psi)
	9/16-18 UNF BOSS	600 bar (8,700 psi)	600 bar (8,700 psi)
DIN 16288	M20 x 1.5	1,000 bar (14,500 psi)	1,800 bar (26,100 psi)
ISO 7	R ¼	1,000 bar (14,500 psi)	1,600 bar (23,200 psi)
	R ⅜	1,000 bar (14,500 psi)	1,400 bar (20,300 psi)
JIS B7505-76	G ¼ B	1,000 bar (14,500 psi)	1,000 bar (14,500 psi)
-	G ½ B male / G ¼ female	1,000 bar (14,500 psi)	1,400 bar (20,300 psi)
	M20 x 1.5 female with sealing cone [1]	6,000 bar	15,000 bar
	M16 x 1.5 female with sealing cone [1]	6,000 bar	10,000 bar
	9/16-18 UNF female F250-C [1]	6,000 bar	10,000 bar
	G ½ B flush	600 bar (8,700 psi)	600 bar (8,700 psi)
	G 1 B flush	1.6 bar (20 psi)	10 bar (145 psi)
	G 1 B flush, hygienic	25 bar (350 psi)	50 bar (725 psi)

1) Not available for psi measuring ranges.

Process connections for the optional medium temperatures (see page 6)

Standard	Thread size	Max. nominal pressure	Overload safety
EN 837	G ¼ B	400 bar (5,800 psi)	800 bar (11,600 psi)
	G ½ B	400 bar (5,800 psi)	800 bar (11,600 psi)
DIN 3852-E	G ¼ A	400 bar (5,800 psi)	600 bar (8,700 psi)
ANSI/ASME B1.20.1	½ NPT	400 bar (5,800 psi)	800 bar (11,600 psi)
ISO 7	R ¼	400 bar (5,800 psi)	800 bar (11,600 psi)
-	G ½ B flush	600 bar (8,700 psi) [1]	600 bar (8,700 psi) [1]
	G 1 B flush	1.6 bar (20 psi)	10 bar (145 psi)
	G 1 B flush, hygienic	25 bar (350 psi)	50 bar (725 psi)

1) Restrictions depending on sealing material, see table “Sealing material restrictions for G ½ B flush process connection“

Sealings

Process connection	Material	
	Standard	Option
EN 837	Copper	Stainless steel
DIN 3852-E	NBR [1]	FKM/FPM [2]
SAE J514 E	NBR [1]	FKM/FPM [2]
G ½ B flush	NBR [4]	FKM/FPM [4], FFKM [4], EPDM [3]
G 1 B flush	NBR [1]	FKM/FPM [2], EPDM [3]
G 1 B flush, hygienic	EPDM [3]	-

1) Permissible temperature range: -20 ... +100 °C (-4 ... +212 °F)
2) Permissible temperature range: -15 ... +200 °C (5 ... 392 °F)
3) Permissible temperature range: -40 ... +150 °C (-40 ... +302 °F)
4) See table “Sealing material restrictions for G ½ B flush process connection”

Except for sealings for process connections per EN 837 the sealings listed under “Standard” are included in the delivery.

Sealing material restrictions for G ½ B flush process connection

Material	Overload safety	
	T= -20 ... +80 °C (-4 ... +176 °F)	T= -20 ... +150 °C (-4 ... +302 °F)
NBR	1,200 bar (17,400 psi)	N/A
FKM/FPM	1,200 bar (17,400 psi)	600 bar (8,700 psi)
FFKM	1,200 bar (17,400 psi)	1,200 bar (17,400 psi)
EPDM	800 bar (11,600 psi)	400 bar (5,800 psi)

T= Ambient temperature
N/A = Not applicable

Electrical connections

Available connections
see “Dimensions in mm”

For ignition protection type Ex nA
- Circular connector M16 x 0.75 IEC 61076-2-106
- Cable outlet IP67 with protection cap
- Cable outlet IP68 (permanent use in the medium)

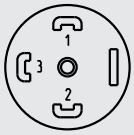
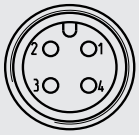
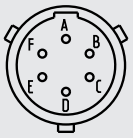
For ignition protection type Ex tc
- Cable outlet IP67 with protection cap
- Cable outlet IP68 (permanent use in the medium)

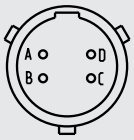
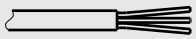
For measuring ranges > 1,000 bar
- Angular connector DIN EN 175301-803 A
- Circular connector M12 x 1 IEC 61076-2-101 A-COD
- Cable outlet IP67
- Field case

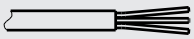
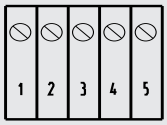
Reverse polarity protection
U_+ vs. U-

Insulation voltage
DC 500 V

Specifications

	Angular connector DIN EN 175301-803 A		Circular connector M12 x 1 IEC 61076-2-101 A-COD (4-pin)		Bayonet connector MIL-DTL-26482 (6-pin)	
Connection diagram						
Assignment (2-wire)	U+ = 1	U- = 2	U+ = 1	U- = 3	U+ = A	U- = B
Cable shield						
Wire cross-section	max. 1.5 mm²					
Cable diameter	6 ... 8 mm Ship approval: 10 ... 14 mm					

	Bayonet connector MIL-DTL-26482 (4-pin)		Circular connector M16 x 0.75 IEC 61076-2-106 (5-pin)		All cable outlets	
Connection diagram						
Assignment (2-wire)	U+ = A	U- = B	U+ = 3	U- = 1	U+ = brown (BN)	U- = green (GN)
Cable shield					grey (GY)	
Wire cross-section					0.5 mm²	
Cable diameter					6.8 mm 7.5 mm (variants for permanent use in the medium)	

	Cable outlet IP67 with protection cap		Field case			
Connection diagram						
Assignment (2-wire)	U+ = brown (BN)	U- = blue (BU)	U+ = 1	U- = 2	Test+ = 3	Test- = 4
Cable shield	Braid		5			
Wire cross-section	0.34 mm²		max. 1.5 mm²			
Cable diameter	5.5 mm		Cable gland Nickel-plated brass: 7 ... 13 mm Stainless steel: 8 ... 15 mm Plastic: 6.5 ... 12 mm			

Legend

U+	Positive power supply terminal
U-	Negative power supply terminal
S+	analogue output
Test+	Positive test connection
Test-	Negative test connection

Operating conditions

Ingress protection (per IEC 60529)
The ingress protection depends on the respective electrical connection.
The stated ingress protection only applies when plugged in using mating connectors that have the appropriate ingress protection.

IP65
- Angular connector DIN EN 175301-803 A

IP67
- Circular connector M12 x 1 IEC 61076-2-101 A-COD
- Circular connector M16 x 0.75 IEC 61076-2-106
- Cable outlet IP67
- Cable outlet IP67 with protection cap (precondition: avoidance of water accumulation in the protection cap)
- Bayonet connector MIL-DTL-26482

IP68
- Cable outlet IP68 cable gland (72 h / 300 mbar)
- Cable outlet IP68 (permanent use in the medium, max. pressure 2 bar)

IP69K
- Field case

Ignition protection types ATEX/IECEx
- II 1G Ex ia IIA T4/T5/T6 Ga
- II 1/2G Ex ia IIC T4/T5/T6 Ga/Gb
- II 3G Ex ic IIC T4/T5/T6 Gc
- II 1D Ex ia IIIC T135 °C Da
- II 1/2D Ex ia IIIC T135 °C Da/Db
- I M1 Ex ia I Ma
- II 3G Ex nA IIC T4/T5/T6 Gc
- II 3D Ex tc IIIC T90 °C Dc

Ignition protection types for other approvals, see “Approvals”

Vibration resistance
(per IEC 60068-2-6, vibration under resonance)
- Model IS-3: 20 g
- Model IS-3 with field case and cable outlet IP67 with protection cap: 10 g
- Measuring ranges > 1,000 bar and optional medium temperature ranges: 5 g
- Field case with optional medium temperature range: 2 g

Shock resistance
(per IEC 60068-2-27, mechanical shock)
- Model IS-3: 1,000 g
- Model IS-3 with field case: 600 g
- Measuring ranges > 1,000 bar, optional medium temperature ranges and cable outlet IP67 with protection cap: 100 g
- Field case with optional medium temperature range: 50 g

Permissible temperature ranges for operation in accordance with the data sheet specifications (for ignition protection type Ex i)

Medium	
Standard	-20 ... +80 °C (-4 ... +176 °F)
Option 1	-20 ... +150 °C (-4 ... +302 °F) (only for flush process connections and measuring ranges ≤ 600 bar)
Option 2	-40 ... +150 °C (-40 ... +302 °F) (only for process connections with pressure port and measuring ranges ≤ 400 bar)
Option 3	-40 ... +200 °C (-40 ... +392 °F) (only for process connections with pressure port and measuring ranges ≤ 400 bar)
Oxygen	-20 ... +60 °C (-4 ... +140 °F)

- Ambient: -20 ... +80 °C (-4 ... +176 °F)
  - Cable outlet IP68 (permanent use in the medium), PUR cable: -15 ... +70 °C (5 ... 158 °F)
  - Cable outlet IP68 (permanent use in the medium), FEP cable: -15 ... +80 °C (5 ... 176 °F)
- Storage: -20 ... +80 °C (-4 ... +176 °F)

Permissible temperature ranges for operation in accordance with the data sheet specifications (for ignition protection types Ex nA and Ex tc)

- Medium: -15 ... +70 °C (5 ... +158 °F) (with oxygen -15 ... +60 °C (5 ... +140 °F))
- Ambient: -15 ... +70 °C (5 ... +158 °F)
- Storage: -15 ... +70 °C (5 ... +158 °F)

Maximum ambient and medium temperatures for safe operation, for medium temperatures ≤ 105 °C (≤ 221 °F) (for ignition protection type Ex i)

Category	EPL	Group	Ambient and medium temperatures	Temperature class / surface temperature
1/2G 3G	Ga/Gb Gc	IIC	-20 °C ≤ Ta ≤ +60 °C (-4 °F ≤ Ta ≤ +140 °F) -20 °C ≤ Ta ≤ +70 °C (-4 °F ≤ Ta ≤ +158 °F) -20 °C ≤ Ta ≤ +70 °C (-4 °F ≤ Ta ≤ +158 °F)	T6 T5 T4

Maximum ambient and medium temperatures for safe operation, for process connections with pressure port and medium temperatures >105 °C (> 221 °F) (for ignition protection type Ex i)

Temperature class	Max. medium temperature	Max. ambient temperature
T2	200 °C (392 °F)	40 °C (104 °F)
T3	195 °C (383 °F)	45 °C (113 °F)
	175 °C (347 °F)	50 °C (122 °F)
	155 °C (311 °F)	50 °C (122 °F)
	135 °C (275 °F)	50 °C (122 °F)
T4	130 °C (266 °F)	50 °C (122 °F)
	110 °C (230 °F)	50 °C (122 °F)
	105 °C (221 °F)	50 °C (122 °F)

Maximum ambient and medium temperatures for safe operation, for flush process connections and medium temperatures >105 °C (> 221 °F) (for ignition protection type Ex i)

Temperature class	Max. medium temperature	Max. ambient temperature
T3	150 °C (302 °F)	20 °C (68 °F)
	135 °C (275 °F)	50 °C (122 °F)
T4	130 °C (266 °F)	50 °C (122 °F)
	110 °C (230 °F)	50 °C (122 °F)
	105 °C (221 °F)	50 °C (122 °F)

Maximum ambient and medium temperatures (for ignition protection types Ex nA and Ex tc)

Category	EPL	Group	Ambient and medium temperatures	Temperature class / surface temperature
3G	Gc	IIC	-15 °C ≤ Ta ≤ +55 °C (5 °F ≤ Ta ≤ +131 °F) -15 °C ≤ Ta ≤ +70 °C (5 °F ≤ Ta ≤ +158 °F) -15 °C ≤ Ta ≤ +70 °C (5 °F ≤ Ta ≤ +158 °F)	T6 T5 T4
3D	Dc	IIIC	-15 °C ≤ Ta ≤ +70 °C (5 °F ≤ Ta ≤ +158 °F)	T90 °C

The exact differentiation of EPLs and temperature ranges for safe operation is given in the operating instructions.

Materials

The materials used meet the requirements of the RoHS directive 2011/65/EU, with the exception of the following instrument variants:
- Electrical connection via bayonet connector
- Measuring ranges > 1,000 bar

Wetted parts
- Measuring ranges ≤ 25 bar and ≤ 400 psi, process connection G ½ B flush and G 1 B flush: 316Ti
- Measuring ranges ≥ 40 ... ≤ 1,000 bar and ≥ 500 ... ≤ 15,000 psi: 316Ti and S13800
- Measuring ranges > 1,000 bar: S13800
- Process connection G 1 B flush, hygienic: 316L
- Measuring ranges ≤ 25 bar and ≤ 400 psi with process connection with pressure port for optional medium temperature range: 316L and 316Ti
- Measuring ranges > 25 bar and > 400 psi with process connection with pressure port for optional medium temperature range: 316L, 316Ti and S13800

For sealing materials see “Process connections”
Where the medium is hydrogen, contact the manufacturer.

Non-wetted parts
- Case: Stainless steel
- Angular connector DIN EN 175301-803 A: PA6
- Circular connector M12 x 1 adjustable: PA6, stainless steel
- Circular connector M12 x 1 not adjustable: Stainless steel
- Circular connector M16 x 0.75 adjustable: PA6, stainless steel, Zn nickel-plated
- Circular connector M16 x 0.75 not adjustable: Stainless steel, Zn nickel-plated
- Bayonet connector adjustable: PA6, stainless steel, Al cadmium-plated
- Bayonet connector not adjustable: Stainless steel, Al cadmium-plated
- Cable outlet IP67: PA6, stainless steel, nickel-plated brass
- Cable outlet IP67 with protection cap: Stainless steel, PA66/6-FR
- Cable outlet IP68 cable gland: Stainless steel, nickel-plated brass
- Cable outlet IP68: Stainless steel
- Field case: Stainless steel, nickel-plated brass / stainless steel / PA
- Internal pressure transmission medium

- No oxygen version:	Synthetic oil
- Oxygen version:	Halocarbon oil
- Instruments with measuring range > 25 bar (400 psi):	Dry measuring cell

Approvals

Logo	Description	Country
CE Ex	**EU declaration of conformity** ■ EMC directive, EN 61326 emission (group 1, class B) and immunity (industrial application) During interference consider an increased measuring deviation of up to 1 %. ■ Pressure equipment directive, PS > 200 bar; module A, pressure accessory ■ RoHS directive ■ ATEX directive Hazardous areas - Ex i Zone 0 gas [II 1G Ex ia IIA T4/T5/T6 Ga] [II 1G Ex ia IIC T4/T5/T6 Ga] Zone 1 mounting to zone 0 gas [II 1/2G Ex ia IIC T4/T5/T6 Ga/Gb] Zone 2 gas [II 3G Ex ic IIC T4/T5/T6 Gc X] Zone 20 dust [II 1D Ex ia IIIC T135 °C Da] Zone 21 mounting to zone 20 dust [II 1/2D Ex ia IIIC T135 °C Da/Db] Mining [I M1 Ex ia I Ma] - Ex n Zone 2 gas [II 3G Ex nA IIC T4/T5/T6 Gc X] - Ex t Zone 22 dust [II 3D Ex tc IIIC T90 °C Dc X]	European Union

Logo	Description	Country
	IECEx Hazardous areas - Ex i Zone 0 gas [II Ex ia IIA T4/T5/T6 Ga] [II Ex ia IIC T4/T5/T6 Ga] Zone 1 mounting to zone 0 gas [II Ex ia IIC T4/T5/T6 Ga/Gb] Zone 2 gas [II Ex ic IIC T4/T5/T6 Gc X] Zone 20 dust [II Ex ia IIIC T135 °C Da] Zone 21 mounting to zone 20 dust [II Ex ia IIIC T135 °C Da/Db] Mining [I Ex ia I Ma] - Ex n Zone 2 gas [II Ex nA IIC T4/T5/T6 Gc X] - Ex t Zone 22 dust [II Ex tc IIIC T90 °C Dc X]	International
	EAC ■ EMC directive ■ Hazardous areas (see approval)	Eurasian Economic Community
	FM Hazardous areas (see approval)	USA
	CSA ■ Safety (e.g. electr. safety, overpressure, ...) ■ Hazardous areas (see approval)	USA and Canada
-	**MTSCHS** Permission for commissioning	Kazakhstan
	UkrSEPRO Metrology, measurement technology	Ukraine
	INMETRO ■ Metrology, measurement technology ■ Hazardous areas (see approval)	Brazil
	NEPSI Hazardous areas (see approval)	China
-	**PESO** ■ Hazardous areas (see approval)	India
	3-A Sanitary Standard This instrument is 3-A marked, based on a third party verification for conformance to the 3-A standard.	USA
	GL Ships, shipbuilding (e.g. offshore)	International

Manufacturer's information and certificates

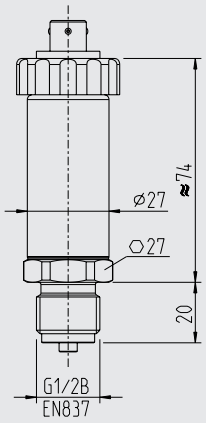
Logo	Description
	SIL 2, functional safety
-	MTTF: >100 years
-	China RoHS directive

Approvals and certificates, see website

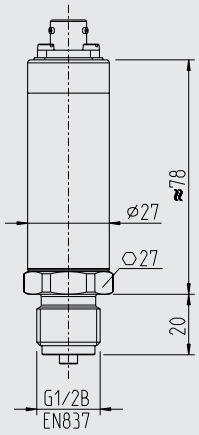
Dimensions in mm

Pressure transmitter

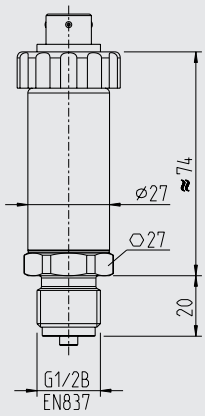
Bayonet connector
MIL-DTL-26482
(4-pin) adjustable



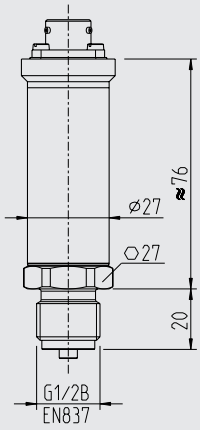
Bayonet connector
MIL-DTL-26482
(4-pin) not adjustable



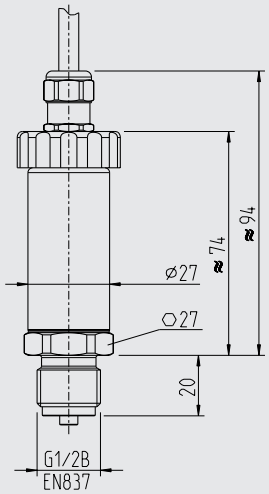
Bayonet connector
MIL-DTL-26482
(6-pin) adjustable



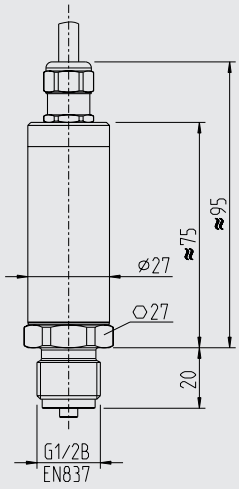
Bayonet connector
MIL-DTL-26482
(6-pin) not adjustable



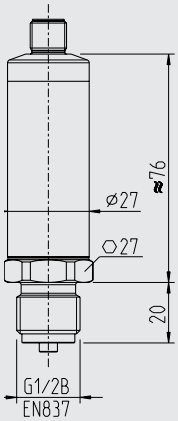
Cable outlet IP67
adjustable



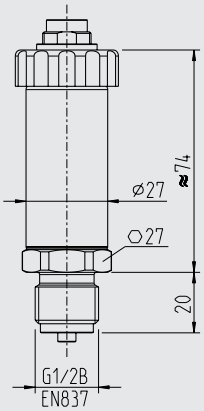
Cable outlet IP68
Cable gland
not adjustable



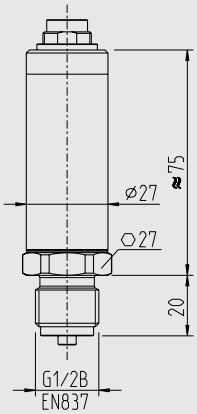
Circular connector M12 x 1
IEC 61076-2-101 A-COD
(4-pin) not adjustable



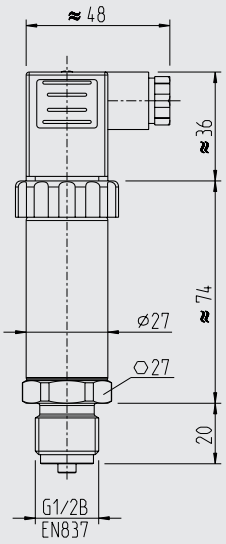
Circular connector M16 x 0.75
IEC 61076-2-106
(5-pin) adjustable



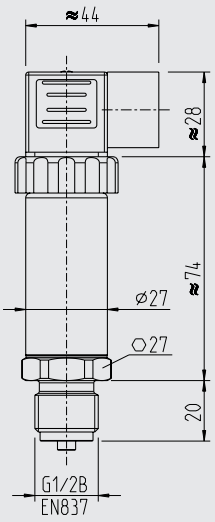
Circular connector M16 x 0.75
IEC 61076-2-106
(5-pin) not adjustable



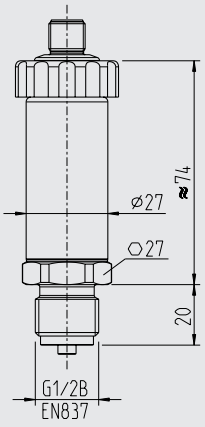
Angular connector
DIN EN 175301-803 A PG 9
adjustable



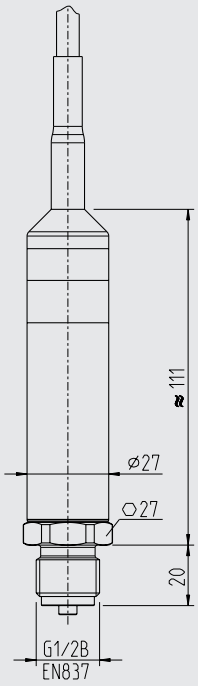
Angular connector
DIN EN 175301-803 A ½ NPT
adjustable



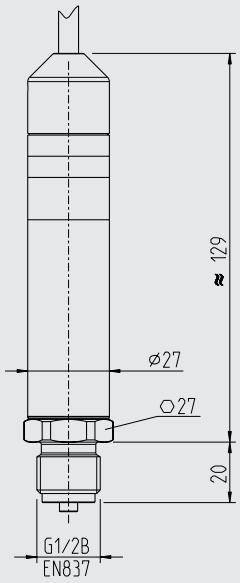
Circular connector M12 x 1
IEC 61076-2-101 A-COD (4-pin)
adjustable



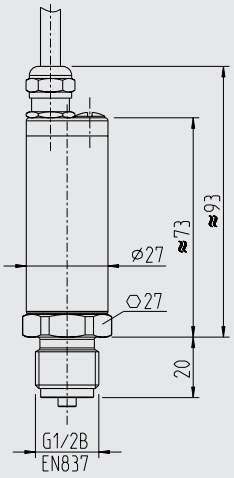
Cable outlet IP68 PUR
(permanent use in the medium)
not adjustable



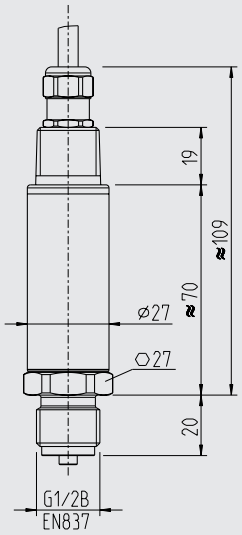
Cable outlet IP68 FEP
(permanent use in the medium)
not adjustable



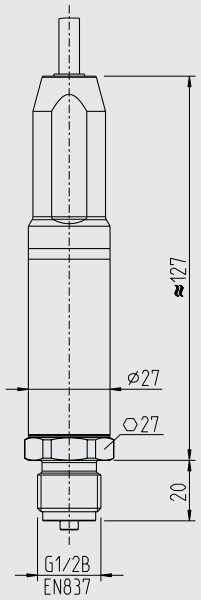
Cable outlet IP68
Cable gland
adjustable



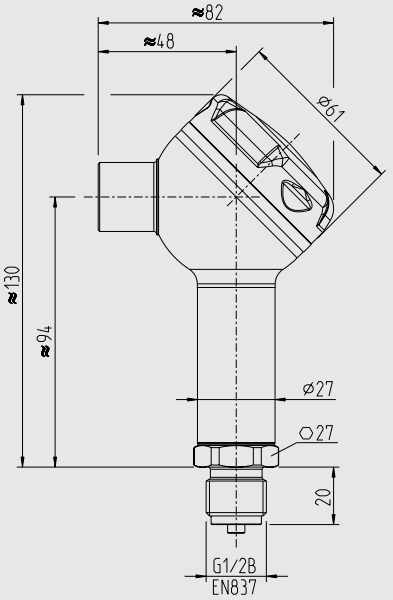
Cable outlet IP68
Cable gland conduit ½ NPT
not adjustable



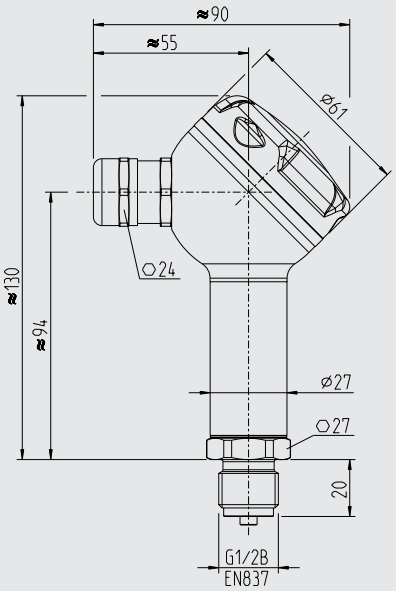
Cable outlet IP67 with protection cap
not adjustable



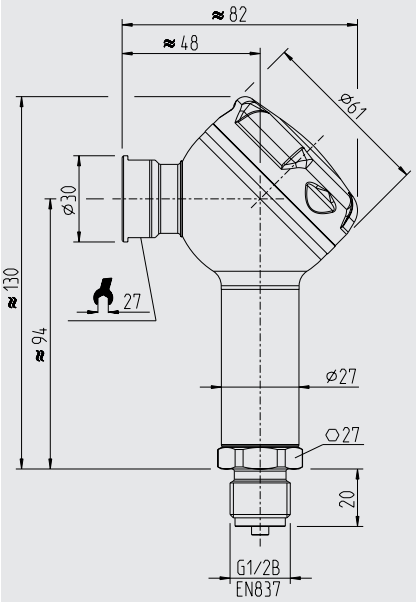
Field case
Conduit ½ NPT-I
adjustable



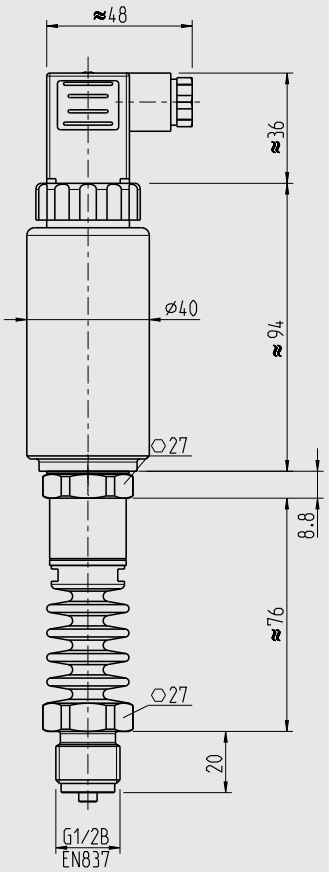
Field case
Cable gland
adjustable



Field case
Conduit M20 x 1.5-I
adjustable

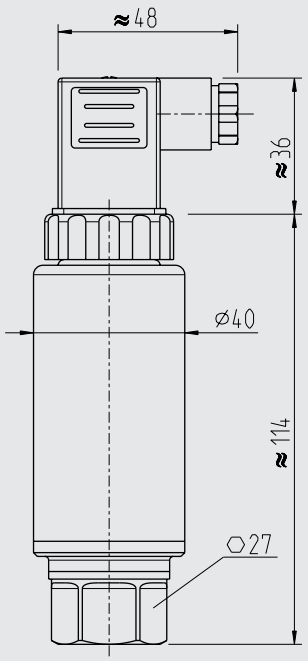


IS-3 for optional medium temperature ranges -40 ... +150 °C (-40 ... 302 °F) and -40 ... +200 °C (-40 ... +392 °F)

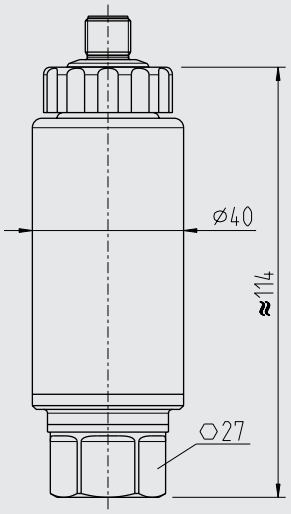


Pressure transmitters in high-pressure version

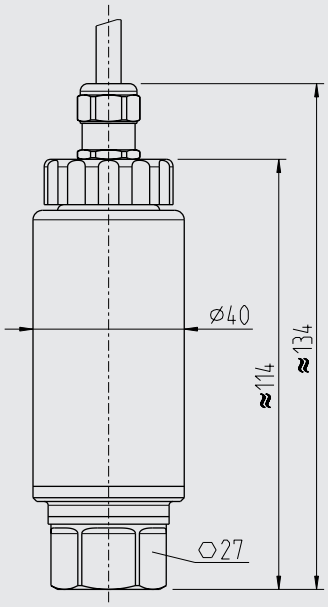
Angular connector
DIN EN 175301-803 A PG 9
adjustable



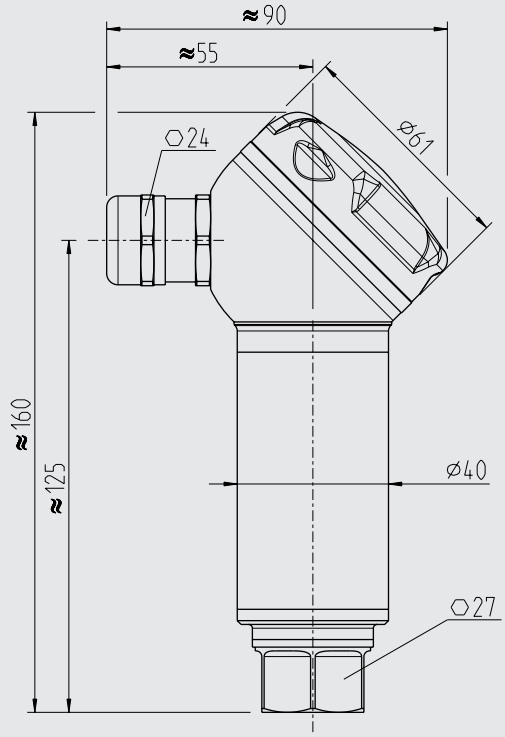
Circular connector M12 x 1
IEC 61076-2-101 A-COD (4-pin)
adjustable



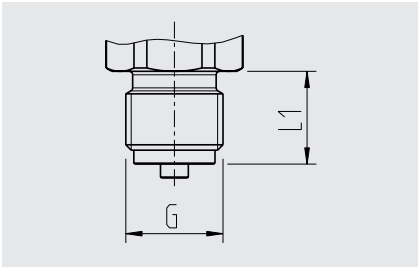
Cable outlet IP67
adjustable



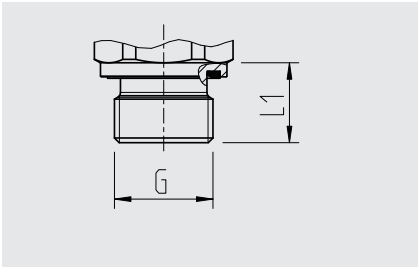
Field case
Cable gland
adjustable



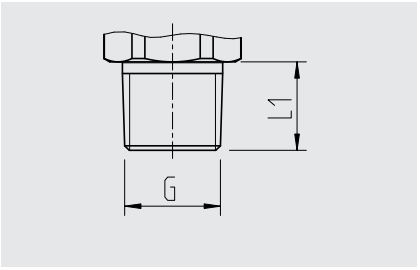
Process connections



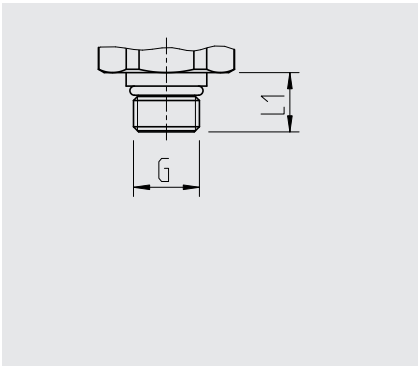
G	L1
G ¼ B EN 837	13
G ½ B EN 837	20
G ⅜ B EN 837	16
M20 x 1.5 DIN 16288	20



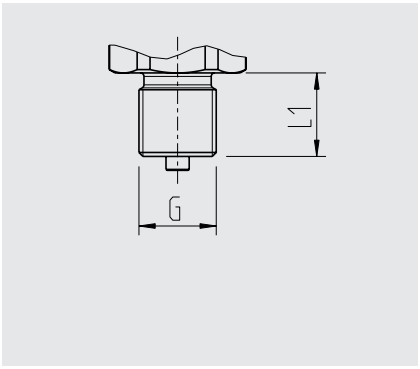
G	L1
G ¼ A DIN 3852-E	14
G ½ A DIN 3852-E	17



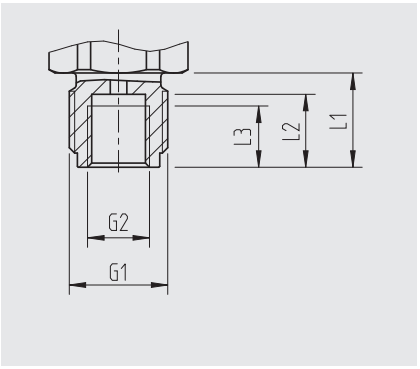
G	L1
¼ NPT	13
½ NPT	19
R ¼	13
R ⅜	15



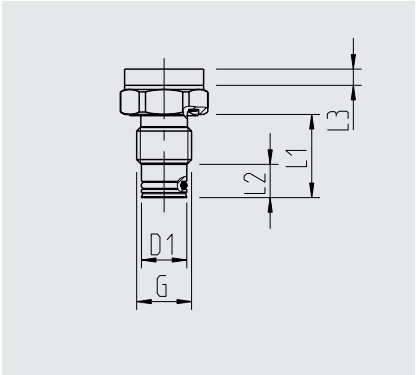
G	L1
7/16-20 UNF BOSS	12.06
9/16-18 UNF BOSS	12.85



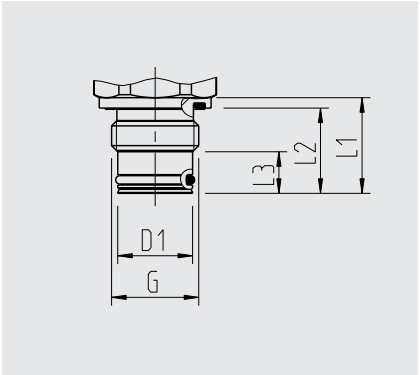
G	L1
G ¼ B JIS B 7505-76	16



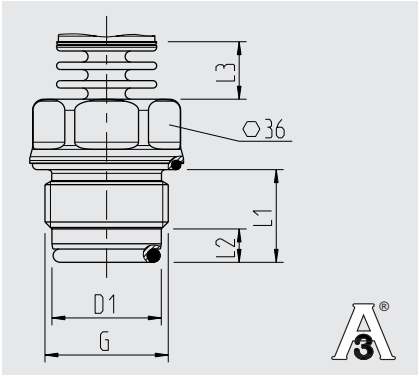
G1	G2	L1	L2	L3
G ½ B	G ¼	20	15.5	13



G	L1	L2	L3	D1
G ½ B	23	20.5	10	18



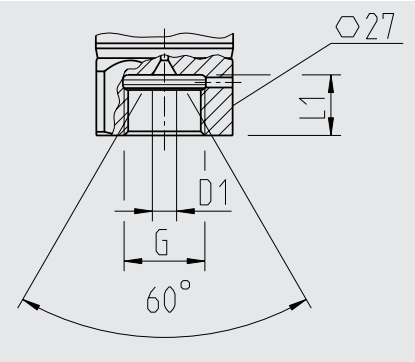
G	L1	L2	L3	D1
G 1 B	23	20.5	10	30



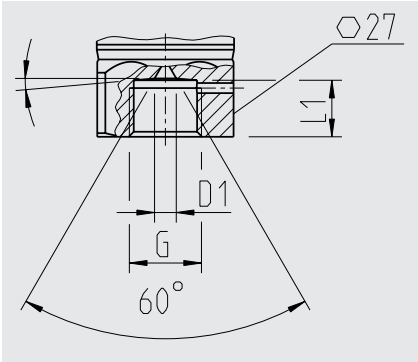
G	L1	L2	L3	D1
G 1 B hygienic	25	9	15.5	29.5

Surface roughness of wetted metallic parts, Ra ≤ 0.76 µm

Process connections for measuring ranges > 1,000 bar



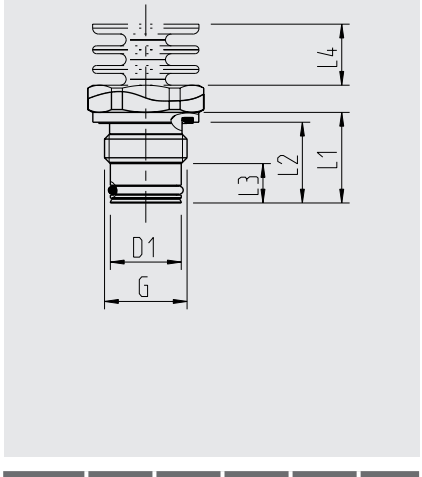
G	L1	D1
M16 x 1.5	12	4.8
M20 x 1.5	15	4.8



G	L1	D1
9/16-18 UNF F250-C	11.2	4.3

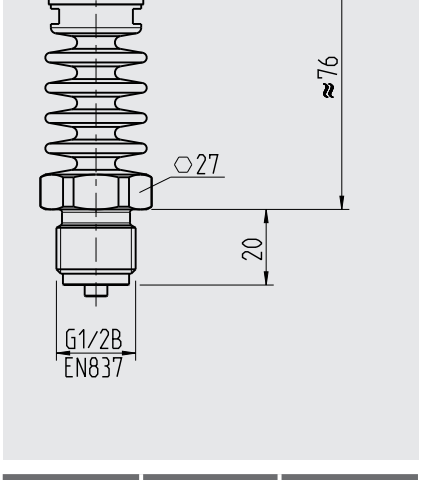
Process connections for optional medium temperature ranges

-20 ... +150 °C



G	L1	L2	L3	L4	D1
G ½ B	23	20.5	10	15.5	18
G 1 B	23	20.5	10	15.5	30

-40 ... +150 °C
-40 ... +200 °C



G	L1	L2
G ½ B	20	71

For information on tapped holes and welding sockets, see Technical information IN 00.14 at www.wika.com.

Accessories and spare parts

Mating connector (for ignition protection type Ex i)

Designation	Order number
Angular connector DIN EN 175301-803 A	
■ with cable gland, metric, with 2 m moulded cable	11225793
■ with cable gland, metric, with 5 m moulded cable	11250186
Circular connector M12 x 1	
■ angled version, 4-pin, IP67, for self-assembly	2421270
■ straight version, 4-pin, IP67, for self-assembly	2421262

Sealings for mating connectors

Description	Order number	
	Blue (WIKA)	Brown (neutral)
Angular connector DIN EN 175301-803 A	1576240	11437902

Sealings for process connection

Process connection	Order number			
	Copper	Stainless steel	NBR	FKM
G ¼ B EN 837	11250810	11250844	-	-
G ½ B EN 837	11250861	11251042	-	-
M20 x 1.5 DIN 16288	11250861	11251042		
G ¼ A DIN 3852-E	-	-	1537857	1576534
G ½ A DIN 3852-E	-	-	1039067	1039075

Repeater power supply

Description	Order number
Repeater power supply model IS Barrier	14117118

Welding socket

Description	Order number
Welding socket for G ½ B flush	1192299
Welding socket for G 1 B flush	1192264
Welding socket for G 1 B hygienic flush	14145179
Welding socket for G 1 B hygienic flush with leak-control channel Fulfils the 3-A Sanitary Standards	14145183

Ordering information

Model / Measuring range / Accuracy / Process connection / Sealing / Electrical connection / Temperature range of medium

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We reserve the right to make modifications to the specifications and materials.

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