

# Pressure transmitter Intrinsic safety Ex ia Model IS-3

WIKA data sheet PE 81.58



For further approvals,  
see page 10

## Applications

- Chemical, petrochemical industry
- Oil, natural gas
- Machine building
- Compressors, compressor systems

## Special features

- Ignition protection type intrinsically safe (Ex ia) with Equipment Protection Level (EPL) Ga, Da, Ma
- Large selection of common approvals for use in hazardous areas, e.g. ATEX, IECEx, FM, CSA, EACEx or NEPSI
- Exceptionally large variety covers almost all applications – even under extreme operating conditions
- Excellent quality and proven technology



Pressure transmitter, model IS-3

## Description

The model IS-3 intrinsically safe pressure transmitter has been designed for gas hazardous areas (EPL Ga) and can also be used with combustible dusts (EPL Da) and in mines susceptible to firedamp (EPL Ma). The model IS-3 is suitable for pressure ranges up to 6,000 bar [87,000 psi] and medium temperatures up to 200 °C [392 °F]. It features numerous approvals, such as ATEX, IECEx, FM and CSA. Thanks to the flush design variant, the IS-3 is also suitable for crystalline and viscous media, and also for applications where residue-free cleaning is needed.

### Large selection of approvals

The model IS-3 offers many globally established approvals for use in hazardous areas – even for smaller markets. For system suppliers, approval combinations reduce the number of instrument variants that they have to keep available for their markets.

### Exceptionally large variety

The model IS-3 shines with its level of customisation and diverse integration possibilities. The high-pressure version is designed for a maximum of 6,000 bar [87,000 psi]. Depending on the configuration, ingress protection of to IP68 and use with medium temperatures of to +200 °C [392 °F] are possible.

### Excellent quality, proven in the field

The model IS-3 and its predecessors have been used reliably for over 20 years. The consistently high quality and its reliable function are regularly confirmed by both internal and external audits.

## Specifications

Accuracy specifications		
Non-linearity per BFSL per IEC 61298-2	≤ ±0.2 % of span	
Accuracy	→ See „Max. measured error per IEC 61298-2“	
Max. measured error per IEC 61298-2	■ ≤ ±0.5 % of span ■ ≤ ±0.25 % of span <sup>1)</sup>	
Zero point setting	±5 % → Through potentiometer within the instrument	
Adjustability of span	±5 % → Through potentiometer within the instrument	
Non-repeatability per IEC 61298-2	< 0.1 % of span	
Mean temperature coefficient at 0 ... 80 °C [32 ... 176 °F]		
Zero point	Measuring range ≤ 0.25 bar [≤ 5 psi]	≤ ±0.4 % of span/10 K
	Measuring range > 0.25 bar [> 5 psi]	≤ ±0.2 % of span/10 K
Span	≤ ±0.2 % of span/10 K	
Long-term stability per IEC 61298-2 <sup>2)</sup>	≤ ±0.2 % of span/year	
Reference conditions	Per IEC 61298-1	

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

2) For hydrogen applications, see technical information IN 00.40.

### Measuring ranges, gauge pressure

bar	
0 ... 0.1	0 ... 60
0 ... 0.16	0 ... 100
0 ... 0.25	0 ... 160
0 ... 0.4	0 ... 250
0 ... 0.6	0 ... 400
0 ... 1	0 ... 600
0 ... 1.6	0 ... 1,000 <sup>1)</sup>
0 ... 2.5	0 ... 1,050 <sup>1) 2)</sup>
0 ... 4	0 ... 1,600 <sup>1) 2)</sup>
0 ... 6	0 ... 2,500 <sup>1) 2)</sup>
0 ... 10	0 ... 4,000 <sup>1) 2)</sup>
0 ... 16	0 ... 5,000 <sup>1) 2)</sup>
0 ... 25	0 ... 6,000 <sup>1) 2)</sup>
0 ... 40	-

1) Only for instruments without flush process connection.

2) Only for instruments with ignition protection type Ex ia.

psi	
0 ... 3	0 ... 500
0 ... 5	0 ... 600
0 ... 10	0 ... 750
0 ... 15	0 ... 800
0 ... 20	0 ... 1,000
0 ... 25	0 ... 1,500
0 ... 30	0 ... 2,000
0 ... 50	0 ... 3,000
0 ... 60	0 ... 4,000
0 ... 100	0 ... 5,000
0 ... 150	0 ... 6,000
0 ... 160	0 ... 7,500
0 ... 200	0 ... 8,000
0 ... 250	0 ... 10,000 <sup>1)</sup>
0 ... 300	0 ... 15,000 <sup>1)</sup>
0 ... 400	-

1) Only for instruments without flush process connection.

### Measuring ranges, absolute pressure

bar	
0 ... 0.25	0 ... 4
0 ... 0.4	0 ... 6
0 ... 0.6	0 ... 10
0 ... 1	0 ... 16
0 ... 1.6	0 ... 25
0 ... 2.5	-

psi	
0 ... 5	0 ... 100
0 ... 10	0 ... 160
0 ... 15	0 ... 200
0 ... 30	0 ... 300
0 ... 60	-

### Vacuum and +/- measuring ranges

bar	
-1 ... 0	-1 ... +5
-1 ... +0.6	-1 ... +9
-1 ... +1.5	-1 ... +15
-1 ... +3	-1 ... +24

psi	
-15 inHg ... 0	-30 inHg ... 100
-30 inHg ... 0	-30 inHg ... 160
-30 inHg ... 15	-30 inHg ... 200
-30 inHg ... 30	-30 inHg ... 300
-30 inHg ... 60	-

Other measuring ranges on request.

Further details on: Measuring range	
<b>Units</b>	<ul style="list-style-type: none"> <li>■ bar</li> <li>■ psi</li> <li>■ mbar</li> <li>■ inWC</li> <li>■ MPa</li> <li>■ kg/cm<sup>2</sup></li> </ul>
<b>Maximum working pressure</b>	→ Corresponds to the upper measuring range value / measuring range full scale value
<b>Overpressure limit</b>	The overpressure limit is based on the measuring range. Depending on the selected process connection and the seal, restrictions in overpressure limit can result.
Measuring ranges ≤ 25 bar [≤ 400 psi]	3 times
Measuring ranges from 0 ... 40 to 0 ... 600 bar [0 ... 500 to 0 ... 8,000 psi]	2 times → 1.7 times the overpressure limit at 1,000 psi, 1,500 psi, 4,000 psi and 6,000 psi
Measuring ranges from 0 ... 1,000 to 0 ... 2,500 bar [0 ... 10,000 to 0 ... 15,000 psi]	1.4 times
Measuring ranges > 2,500 bar	1.15 times
<b>Vacuum resistance</b>	Yes

Process connection				
Thread	Max. measuring range in bar [psi]	Overpressure limit in bar [psi]	Permissible temperature ranges in °C [°F] for ignition protection type Ex ia	Seal
<b>EN 837</b>				
G ¼ B	1,000 [14,500]	1,480 [21,500]	-20 ... +80 [-4 ... +176]	-
	400 [5,800]	800 [11,600]	-40 ... +150 [-40 ... +302]	-
	400 [5,800]	800 [11,600]	-40 ... +200 [-40 ... +392]	-
G ½ B	1,000 [14,500]	1,480 [21,500]	-20 ... +80 [-4 ... +176]	-
	400 [5,800]	800 [11,600]	-40 ... +150 [-40 ... +302]	-
	400 [5,800]	800 [11,600]	-40 ... +200 [-40 ... +392]	-
<b>DIN EN ISO 1179-2</b>				
G ¼ A	600 [8,700]	858 [12,500]	-20 ... +80 [-4 ... +176]	NBR
			-15 ... +80 [+5 ... +176]	FKM/FPM
	400 [5,800]	600 [8,700]	■ -15 ... +150 [+5 ... +302] ■ -15 ... +200 [+5 ... +392]	FKM/FPM
G ½ A	600 [8,700]	858 [12,500]	-20 ... +80 [-4 ... +176]	NBR
			-15 ... +80 [+5 ... +176]	FKM/FPM
<b>ANSI/ASME B1.20.1</b>				
1/4 NPT	1,000 [14,500]	1,480 [21,500]	-20 ... +80 [-4 ... +176]	-
1/2 NPT	1,000 [14,500]	1,480 [21,500]	-20 ... +80 [-4 ... +176]	-
	400 [5,800]	800 [11,600]	■ -40 ... +150 [-40 ... +302] ■ -40 ... +200 [-40 ... +392]	-
<b>DIN 16288</b>				
M20 x 1.5	1,000 bar [14,500 psi]	1,480 [21,500]	-20 ... +80 [-4 ... +176]	-
<b>Female thread with sealing cone</b>				
M16 x 1.5	6,000 bar [87,000 psi]	7,000 [101,500]	-20 ... +80 [-4 ... +176]	-
	→ Not available for psi measuring ranges			
M20 x 1.5	6,000 bar [87,000 psi]	7,000 [101,500]	-20 ... +80 [-4 ... +176]	-
	→ Not available for psi measuring ranges			
9/16-18 UNF/ female F250-C	6,000 bar [87,000 psi]	7,000 [101,500]	-20 ... +80 [-4 ... +176]	-
<b>ISO 7</b>				
R ¾	1,000 [14,500]	1,480 [21,500]	-20 ... +80 [-4 ... +176]	-
R ¼	1,000 [14,500]	1,480 [21,500]	-20 ... +80 [-4 ... +176]	-
	400 [5,800]	800 [11,600]	-40 ... +150 [-40 ... +302]	-
	400 [5,800]	800 [11,600]	-40 ... +200 [-40 ... +392]	-
-				
G ½ male/G ¼ female	1,000 [14,500]	1,480 [21,500]	-20 ... +80 [-4 ... +176]	-

Process connection				
Thread	Max. measuring range in bar [psi]	Overpressure limit in bar [psi]	Permissible temperature ranges in °C [°F] for ignition protection type Ex ia	Seal
<b>Flush</b>				
G ½ B	600 [8,700]	1,200 [17,500]	-20 ... +80 [-4 ... +176]	NBR
			-15 ... +80 [+5 ... +176]	FKM/FPM
		600 [8,700]	-15 ... +150 [+5 ... +302]	FKM/FPM
		1,200 [17,500]	-20 ... +80 [-4 ... +176]	FFKM
			-20 ... +150 [-4 ... +302]	FFKM
		800 [11,600]	-20 ... +80 [-4 ... +176]	EPDM
400 [5,800]	-20 ... +150 [-4 ... +302]	EPDM		
G 1 B	1.6 [23]	4.8 [69]	-20 ... +80 [-4 ... +176]	NBR
			-15 ... +80 [+5 ... +176]	FKM/FPM
			-20 ... +80 [-4 ... +176]	EPDM
			-15 ... +150 [+5 ... +302]	FKM/FPM
			-20 ... +150 [-4 ... +302]	EPDM
G 1 hygienic	25 [360]	50 [720]	-20 ... +150 [-4 ... +302]	EPDM

Details must be tested separately in the respective application. The specified values for the overpressure limit serve only as a rough orientation. The values depend on the temperature, the seal used, the selected torque, the type and the material of the mating thread and the prevailing operating conditions.

Permissible temperature ranges depend on the process connection, the EPL, the temperature class, the electrical connection and the seal, see chapter "Specifications" in the operating instructions.

Output signal	
<b>Signal type</b>	4 ... 20 mA
<b>Load</b>	
Model IS-3	$\leq (\text{auxiliary power} - 10 \text{ V}) / 0.02 \text{ A} - (\text{cable length in m} \times 0.14 \Omega)$
Model IS-3 with field case	$\leq (\text{auxiliary power} - 11 \text{ V}) / 0.02 \text{ A}$
	With test signal $\leq 15 \Omega$
<b>Voltage supply</b>	
Model IS-3	DC 10 ... 30 V
Model IS-3 with field case	DC 11 ... 30 V
<b>Dynamic behaviour</b>	
Settling time per IEC 61298-2	$\leq 2 \text{ ms}$
Settling time per IEC 61298-2 for medium temperatures below -30 °C [-22 °F]	$\leq 10 \text{ ms}$

Electrical connection					
Connection type	IP code <sup>1) 2)</sup> IEC 60529	Ignition protection type	Materials	Wire cross-section in mm <sup>2</sup>	Cable diameter in mm [in]
<b>Angular connector DIN EN 175301-803-A</b>					
PG9	IP65	Ex ia	PA6	Max. 1.5	6 ... 8 [0.24 ... 0.31]
1/2 NPT	IP65	Ex ia	PA6	Max. 1.5	6 ... 8 [0.24 ... 0.31]
PG13.5 (GL)	IP65	Ex ia	PA6	Max. 1.5	10 ... 14 [0.39 ... 0.55]
<b>Circular connector IEC 61076-2-106</b>					
M16 x 0.75, 5-pin	IP67	■ Ex ia ■ Ex ec	PA6, nickel-plated Zn	-	-
<b>Circular connector IEC 61076-2-101 A-COD</b>					
M12 x 1	IP67	Ex ia	PA6, stainless steel	-	-
<b>Bayonet connector MIL-DTL-26482</b>					
4-pin	IP67	Ex ia	PA6, stainless steel, nickel-plated Al	-	-
6-pin	IP67	Ex ia	PA6, stainless steel, nickel-plated Al	-	-
<b>Cable outlet</b>					
Cable outlet	IP67	Ex ia	PA6, stainless steel, nickel-plated brass, PUR	0.5	6.8 [0.27]
Cable outlet with protective cap	IP67 <sup>3)</sup>	■ Ex ec ■ Ex tc	PA66/6-FR, stainless steel, PUR	0.34	5.5 [0.22]
Cable outlet with cable gland	IP68	Ex ia	Stainless steel, nickel-plated brass, PUR	0.5	6.8 [0.27]
→ Condition: max. 72 h at 300 mbar [4.35 psi]					
Cable outlet with cable gland conduit 1/2 NPT	IP68	Ex ia	Stainless steel, nickel-plated brass, PUR	0.5	6.8 [0.27]
→ Condition: max. 72 h at 300 mbar [4.35 psi]					
Cable outlet, permanent use in the medium	IP68	■ Ex ia ■ Ex ec ■ Ex tc	Stainless steel ■ PUR ■ FEP	0.5	7.5 [0.3]
→ Restriction: max. 2 bar [29 psi] ambient pressure					
<b>Field case</b>					
Nickel-plated brass cable gland	IP69K	Ex ia	Stainless steel, nickel-plated brass	Max. 1.5	7 ... 13 [0.28 ... 0.51]
Stainless steel cable gland	IP69K	Ex ia	Stainless steel	Max. 1.5	8 ... 15 [0.31 ... 0.59]
Plastic cable gland	IP69K	Ex ia	Stainless steel, plastic	Max. 1.5	6.5 ... 12 [0.26 ... 0.47]
Cable gland conduit 1/2 NPT	IP69K	Ex ia	Stainless steel, plastic	Max. 1.5	6.5 ... 12 [0.26 ... 0.47]
Cable gland conduit M20 x 1.5	IP69K	Ex ia	Stainless steel, plastic	Max. 1.5	6.5 ... 12 [0.26 ... 0.47]

1) The stated IP codes only apply when plugged in using mating connectors that have the appropriate IP code.

2) In combination with FM and CSA approvals, the ingress protection is always specified as IP65.

3) Precondition: Avoidance of water accumulation in the protective cap


## Further details on: Electrical connection

### Features

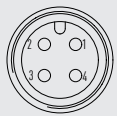
Angular connector	Adjustable
Circular connector	<ul style="list-style-type: none"> <li>■ Adjustable</li> <li>■ Not adjustable (without PA6 material)</li> </ul>
Bayonet connector	Adjustable
Cable outlet	<ul style="list-style-type: none"> <li>■ Adjustable</li> <li>■ Not adjustable (without PA6 material)</li> </ul> → Depending on version
Field case	<ul style="list-style-type: none"> <li>■ Spring terminal</li> <li>■ Screw terminal</li> <li>■ Adjustable</li> </ul>
<b>Reverse polarity protection</b>	U+ vs. U
<b>Insulation voltage</b>	DC 500 V

### Pin assignment

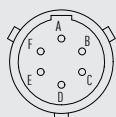
#### Angular connector DIN 175301-803 A

		2-wire
	U+	1
	U-	2
	Shield	-

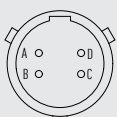
#### Circular connector M12 x 1 IEC 61076-2-101 (4-pin)

		2-wire
	U+	1
	U-	3
	Shield	-


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

		2-wire
	U+	A
	U-	B
	Shield	-

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

		2-wire
	U+	A
	U-	B
	Shield	-

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

		2-wire
	U+	3
	U-	1
	Shield	-

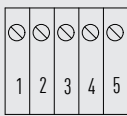
#### All cable outlets

		2-wire
	U+	Brown (BN)
	U-	Green (GN)
	Shield	Grey (GY)

#### Cable outlet IP67 with protective cap

		2-wire
	U+	Brown (BN)
	U-	Blue (BU)
	Shield	Shielding braid

#### Field case

		2-wire
	U+	1
	U-	2
	Test+	3
	Test-	4
	Shield	5

### Legend

- U+ Positive power supply terminal
- U- Negative power supply terminal
- Test+ Positive test connection
- Test- Negative test connection

Material		
<b>Material (wetted)</b>		
Measuring ranges $\leq 25$ bar [ $\leq 400$ psi]	G 1/2 B flush	316 Ti
	G 1 B flush	
	G 1 B hygienic	316L
	Process connections with pressure port	316L and 316Ti
	Process connections with pressure port and permissible temperature range $> 80$ °C or $\leq 20$ °C [ $> 176$ °F or $\leq 68$ °F]	316L and 316Ti
Measuring ranges $\geq 40$ bar [ $\geq 500$ psi]	Process connections with pressure port and permissible temperature range $> 80$ °C or $\leq 20$ °C [ $> 176$ °F or $\leq 68$ °F]	316L and 316Ti and S13800
Measuring ranges $\geq 40$ and $\leq 1,050$ bar [ $\geq 500$ and $\leq 15,000$ psi]	Process connections with pressure port	316Ti and S13800
Measuring ranges $> 1,050$ bar [ $> 15,000$ psi]	Process connections with pressure port	S13800
<b>Seal</b>	→ See table „Process connection”	
<b>Material (in contact with the environment)</b>		
Case	Stainless steel	
Electrical connection	→ See table „Electrical connection”	
<b>Pressure transmission medium</b>		
$< 25$ bar [400 psi]	Synthetic oil	
$\geq 25$ bar [400 psi]	Dry measuring cell	
$\leq 25$ bar abs. [400 psi abs.]	Synthetic oil	

Version for special media		
<b>Food</b>	Food-compatible pressure transmission medium	
<b>Oil- and grease-free</b>	Residual hydrocarbon	$< 1,000$ mg/m <sup>2</sup>
<b>Hydrogen</b>	→ On request	
	Measuring ranges	$\geq 25$ bar [400 psi]
	Material (wetted)	316L and Elgiloy® (2.4711)
	Max. permissible temperature	30 °C [86 °F]
	→ The lower limit is determined by factors such as the seal etc., see also technical information IN 00.40 on the website.	

Operating conditions		
<b>Permissible temperature limits for ignition protection type Ex ia</b>		
Medium temperature limit / Ambient temperature limit	Permissible temperature ranges depend on the option selected above, the EPL, the temperature class, the selected electrical connection and the selected seal.	
Storage temperature limit	-15 ... +70 °C [5 ... 158 °F]	
<b>Permissible temperature limits for ignition protection type Ex ec and Ex tc</b>		
Medium temperature limit	T6: -15 ... +55 °C [5 ... +131 °F]	
	T4/T5: -15 ... +70 °C [5 ... +158 °F]	
Ambient temperature limit	T6: -15 ... +55 °C [5 ... +131 °F]	
	T4/T5: -15 ... +70 °C [5 ... +158 °F]	
Storage temperature limit	-15 ... +70 °C [5 ... +158 °F]	
<b>Ingress protection (IP code) per IEC 60529</b>	→ See table „Electrical connection”	



## Operating conditions

### Vibration resistance per IEC 60068-2-6

-	20g
Field case and cable outlet IP67 with protective cap	10g
Measuring range > 1,000 bar	5g
Medium temperature ranges / Medium temperatures < -20 °C and > 80 °C [ $< -4$ and $> 176$ °F]	5g
Medium temperature ranges / Medium temperatures < -20 °C and > 80 °C [ $< -4$ and $> 176$ °F] with field case	2g












### Shock resistance per IEC 60068-2-27

-	1,000g
Field case	600g
Measuring range > 1,000 bar	100g
Cable outlet IP67 with protective cap	100g
Medium temperature ranges / Medium temperatures < -20 °C and > 80 °C [ $< -4$ °F and $> 176$ °F]	100g
Medium temperature ranges / Medium temperatures < -20 °C and > 80 °C [ $< -4$ °F and $> 176$ °F] with field case	50g

## Packaging and instrument labelling

<b>Packaging</b>	Individual packaging
<b>Instrument labelling</b>	WIKA product label, glued

## Approvals

Logo	Description	Country
	<b>EU declaration of conformity</b> EMC directive EN 61326 emission (group 1, class B) and immunity (industrial environments) Pressure Equipment Directive RoHS directive	European Union
	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 IIIB T <sub>200</sub> 135 °C Da] [II 1D Ex ia IIIC T135 °C Da] Zone 21 mounting to zone 20 dust [II 1/2D Ex ia IIIB T <sub>200</sub> 135 °C Da/Db] [II 1/2D Ex ia IIIC T135 °C Da/Db] Mining [I M1 Ex ia I Ma] - Ex e Zone 2 gas [II 3G Ex ec IIC T4/T5/T6 Gc X] - Ex t Zone 22 dust [II 3D Ex tc IIIC T90 °C Dc X]	
	<b>IECEX</b> Hazardous areas - Ex ia Zone 0 gas [Ex ia IIA T4/T5/T6 Ga] [Ex ia IIC T4/T5/T6 Ga] Zone 1 mounting to zone 0 gas [Ex ia IIC T4/T5/T6 Ga/Gb] Zone 2 gas [Ex ic IIC T4/T5/T6 Gc X] Zone 20 dust [Ex ia IIIB T <sub>200</sub> 135 °C Da] [Ex ia IIIC T135 °C Da] Zone 21 mounting to zone 20 dust [Ex ia IIIB T <sub>200</sub> 135 °C Da/Db] [Ex ia IIIC T135 °C Da/Db] Mining [Ex ia I Ma] - Ex e Zone 2 gas [Ex ec IIC T4/T5/T6 Gc X] - Ex t Zone 22 dust [Ex tc IIIC T90 °C Dc X]	International
	<b>FM</b> Hazardous areas (see approval)	USA
	<b>CSA</b> Safety (e.g. electr. safety, overpressure, ...) Hazardous areas (see approval)	USA and Canada
	<b>KazInMetr</b> Metrology, measurement technology	Kazakhstan
-	<b>MTSCHS</b> Permission for commissioning	Kazakhstan
	<b>UkrSEPRO</b> Metrology, measurement technology	Ukraine
	<b>Uzstandard</b> Metrology, measurement technology	Uzbekistan
	<b>NEPSI</b> Hazardous areas (see approval)	China
	<b>KCs (KOSHA)</b> Hazardous areas (see approval)	South Korea
	<b>DNV GL</b> Ships, shipbuilding (e.g. offshore)	International
-	<b>CRN</b> Safety (e.g. electr. safety, overpressure, ...)	Canada

## Manufacturer's information and certificates

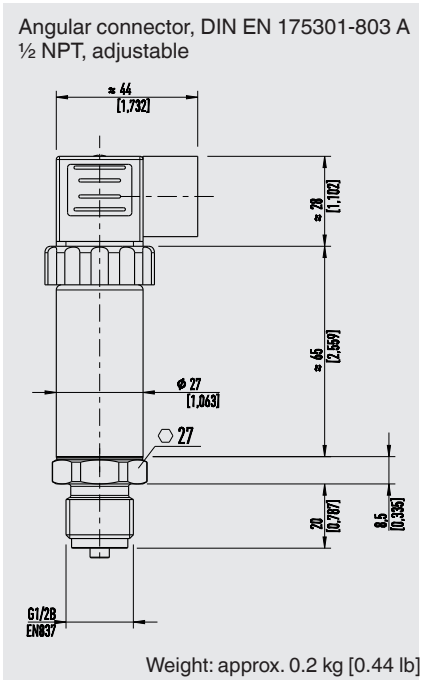
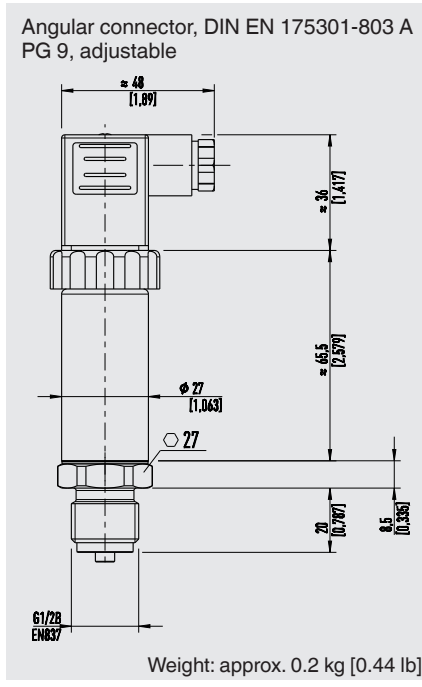
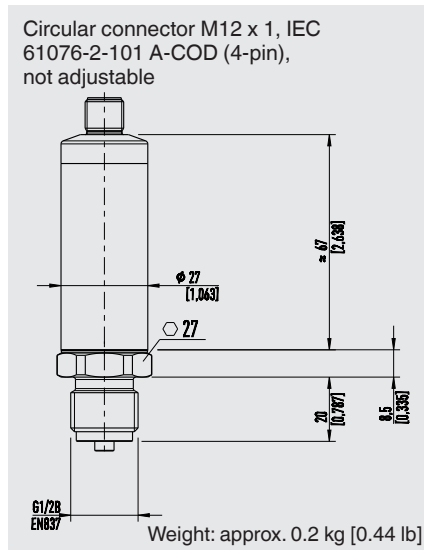
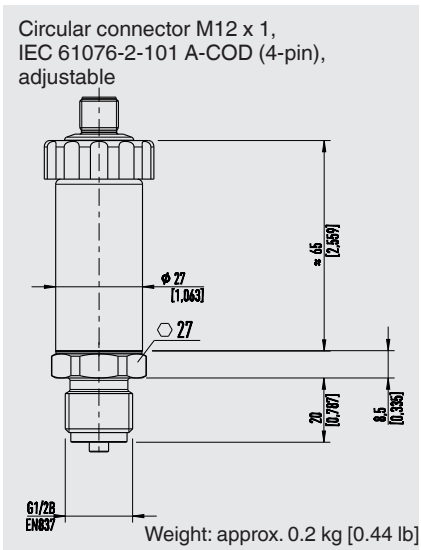
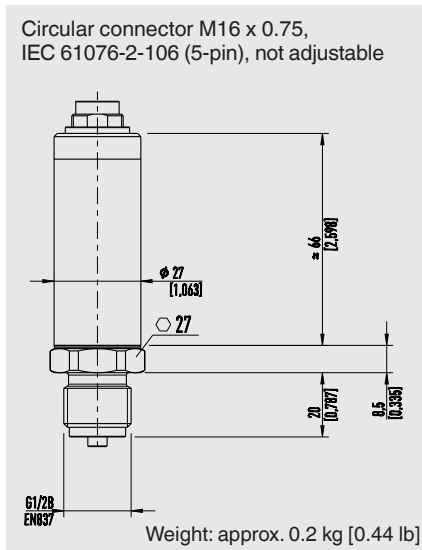
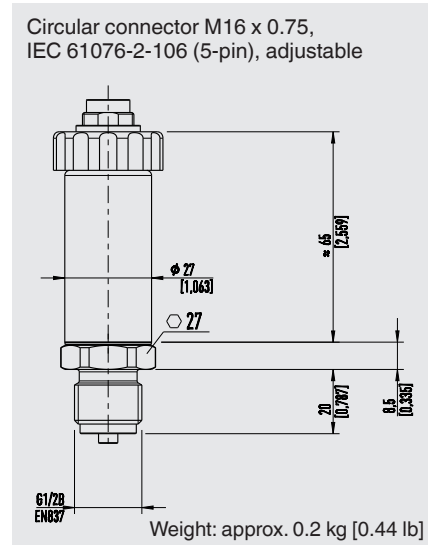
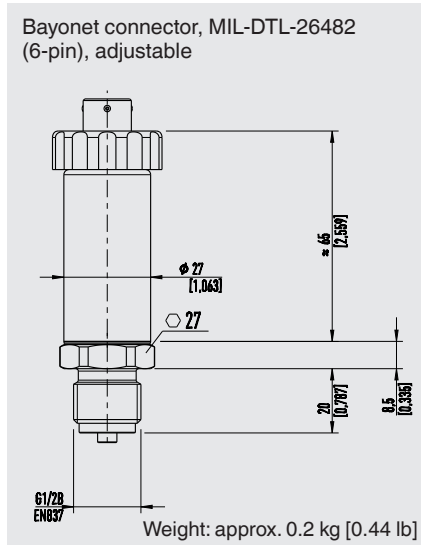
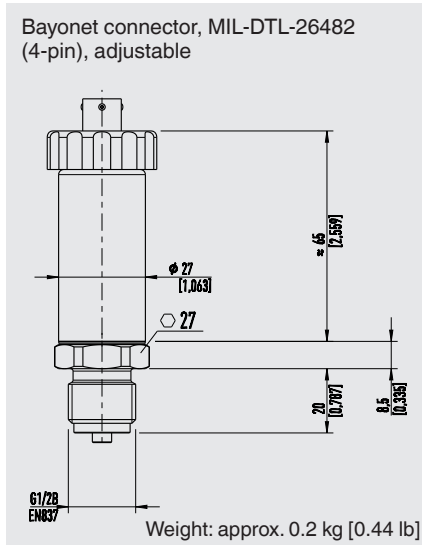
Logo	Description
MTTF	> 100 years
-	China RoHS directive

→ For approvals and certificates, see website

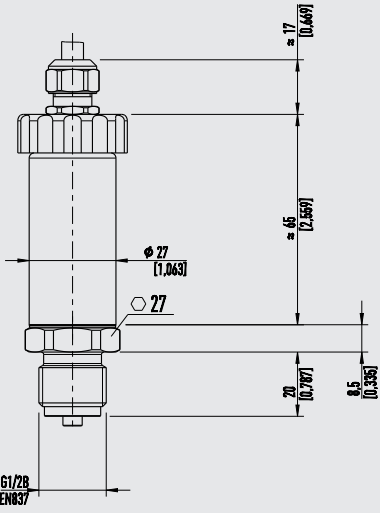
## Safety-related characteristic values (Ex)

Safety-related characteristic values (Ex)			
Supply and signal circuit			
For ATEX/IECEx ignition protection type Ex ia	See product label		
	Voltage	$U_i = \text{DC } 30 \text{ V}$	
	Current	$I_i = 100 \text{ mA}$	
	Power	Group I (mines susceptible to firedamp): $P_i = 800 \text{ mW}$	
		Group II (explosive gas atmosphere other than mines): $P_i = 800 \text{ mW}$	
		Group IIIB (explosive gas atmosphere other than mines): $P_i = 800/650 \text{ mW}$	
		Group IIIC (explosive gas atmosphere other than mines): $P_i = 750/650/550 \text{ mW}$	
Effective internal capacitance (version with non-detachable cable connection)	<ul style="list-style-type: none"> <li>■ <math>C_i \leq 16.5 \text{ nF}</math></li> <li>■ <math>C_i \leq 16.5 \text{ nF} + 0.2 \text{ nF/m}</math></li> </ul>		
Effective internal inductance (version with non-detachable cable connection)	<ul style="list-style-type: none"> <li>■ <math>L_i = 0 \text{ } \mu\text{H}</math></li> <li>■ <math>L_i = 0 \text{ } \mu\text{H} + 2 \text{ } \mu\text{H/m}</math></li> </ul>		
Supply and signal circuit for CSA and FM	See product label		
	Entity/non-incendive parameters	$V_{\text{max}}/U_i = 30 \text{ V}$ $I_{\text{max}}/I_i = 100 \text{ mA}$ at ambient temperature $\leq 85 \text{ }^\circ\text{C}$ [185 °F] $I_{\text{max}}/I_i = 87 \text{ mA}$ at ambient temperature $> 85 \text{ }^\circ\text{C}$ [185 °F] $P_{\text{max}}/P_i = 0.8 \text{ W}$ $C_i = 16.5 \text{ nF}$ (flying leads: $+ 0.2 \text{ nF/m}$ ) $L_i = 0 \text{ } \mu\text{H}$ (flying leads: $+ 2 \text{ } \mu\text{H/m}$ )	

# Dimensions in mm [in]

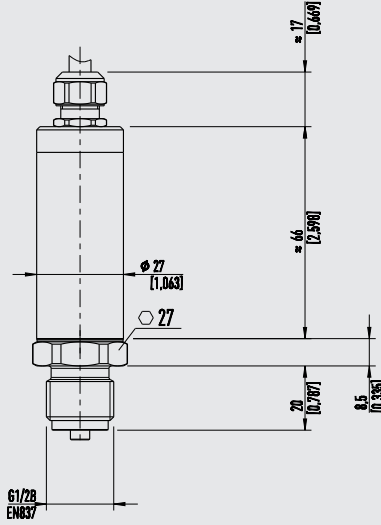


Cable outlet IP67, adjustable



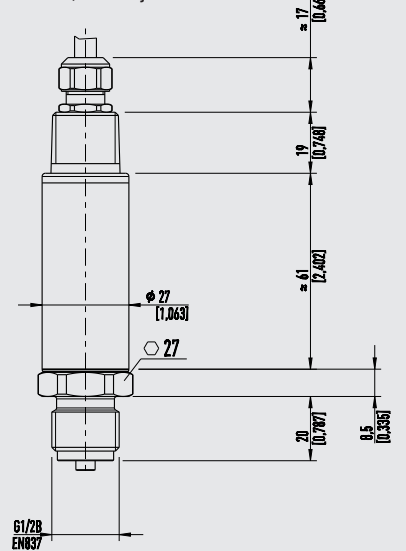
Weight: approx. 0.25 kg [0.55 lb]

Cable outlet IP68, cable gland, not adjustable



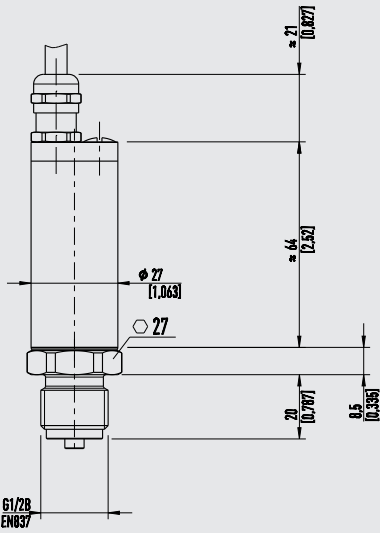
Weight: approx. 0.25 kg [0.55 lb]

Cable outlet IP68, cable gland conduit 1/2 NPT, not adjustable



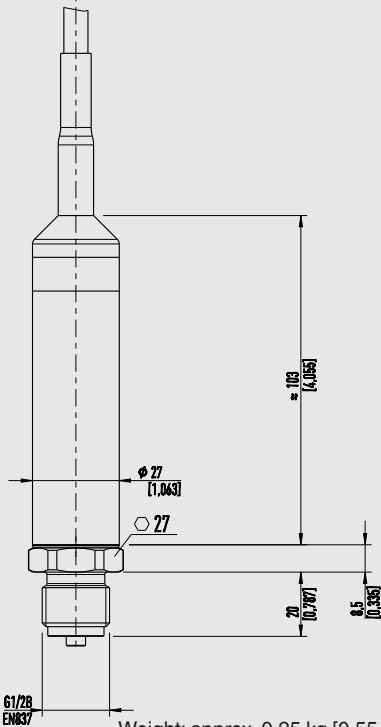
Weight: approx. 0.25 kg [0.55 lb]

Cable outlet IP68, cable gland, adjustable



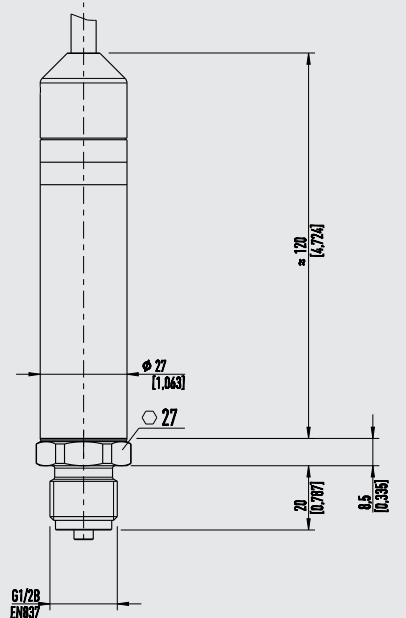
Weight: approx. 0.25 kg [0.55 lb]

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



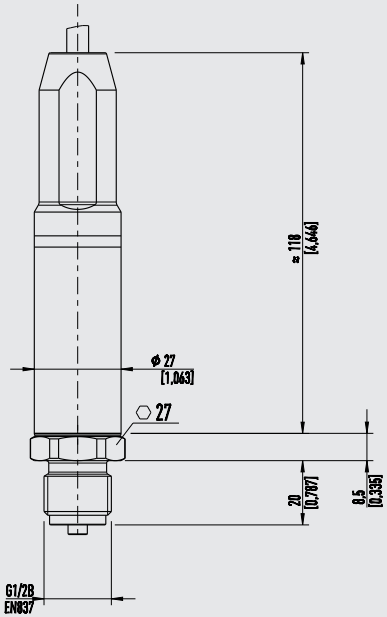
Weight: approx. 0.25 kg [0.55 lb]

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



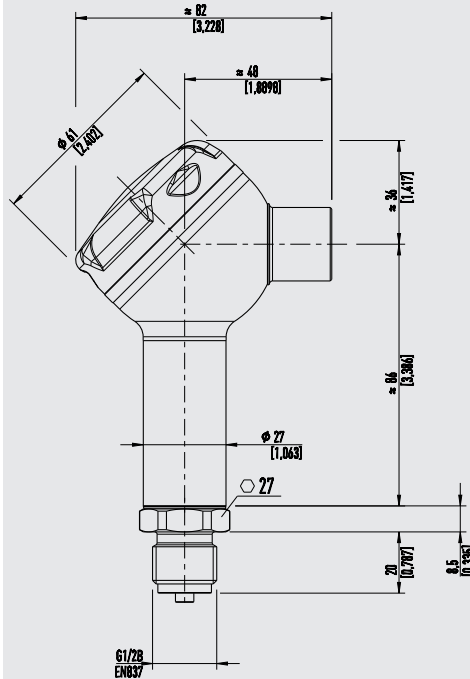
Weight: approx. 0.3 kg [0.66 lb]

Cable outlet IP67 with protective cap, not adjustable



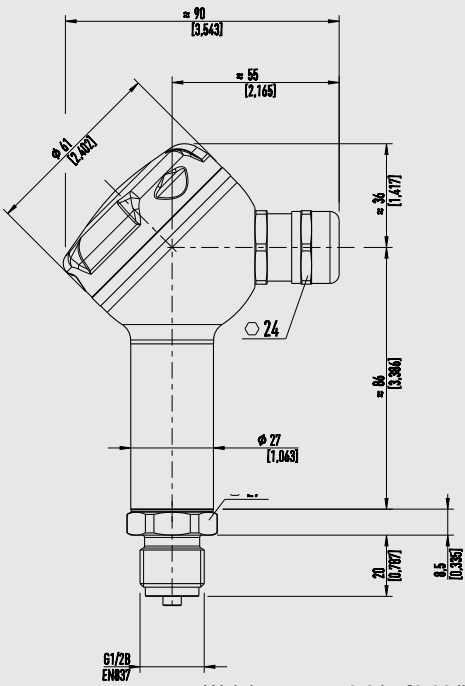
Weight: approx. 0.25 kg [0.55 lb]

Field case, conduit 1/2 NPT-I, adjustable



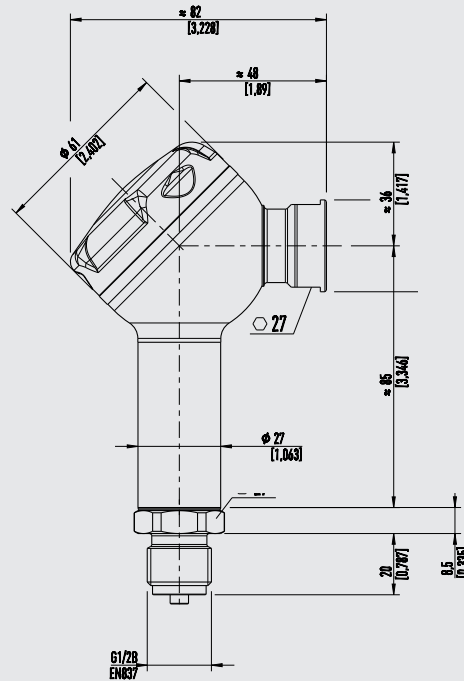
Weight: approx. 0.3 kg [0.66 lb]

Field case, cable gland, adjustable



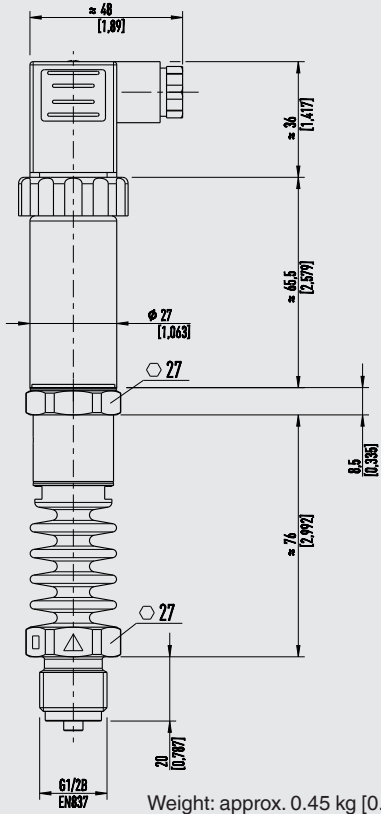
Weight: approx. 0.3 kg [0.66 lb]

Field case, conduit M20 x 1.5-I, adjustable



Weight: approx. 0.3 kg [0.66 lb]

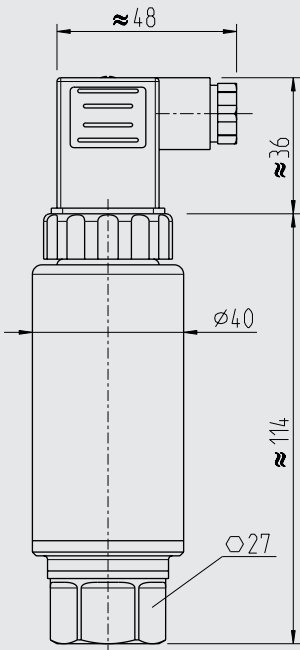
IS-3 for optional medium temperature ranges  
 -40 ... +150 °C [-40 ... 302 °F] and -40 ... +200 °C  
 [-40 ... +392 °F]



Weight: approx. 0.45 kg [0.99 lb]

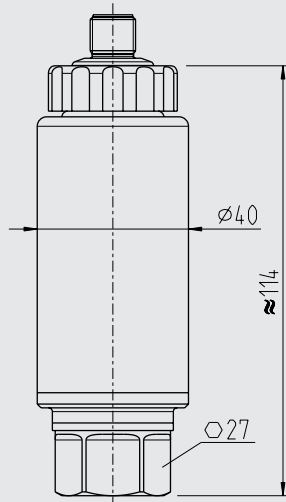
**Pressure transmitters in high-pressure version**

Angular connector,  
 DIN EN 175301-803 A PG 9, Adjustable



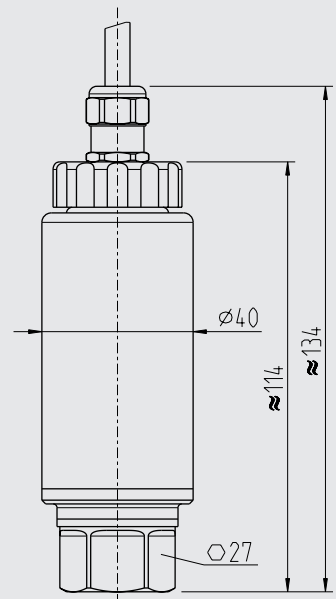
Weight: approx. 0.3 kg [0.66 lb]

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



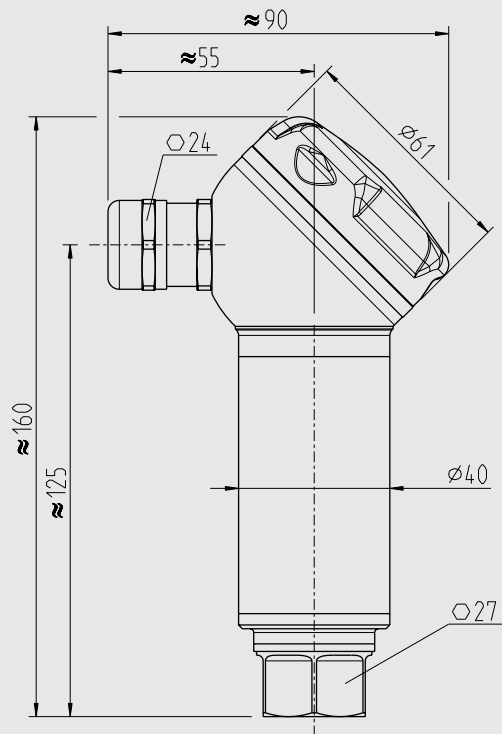
Weight: approx. 0.3 kg [0.66 lb]

Cable outlet IP67, Adjustable



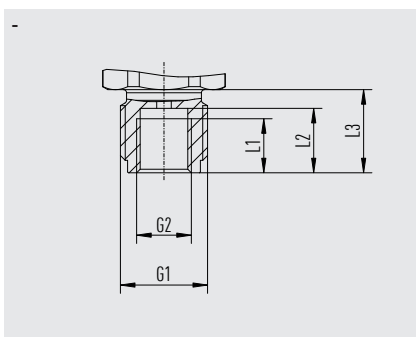
Weight: approx. 0.3 kg [0.66 lb]

Field case, Cable gland, Adjustable

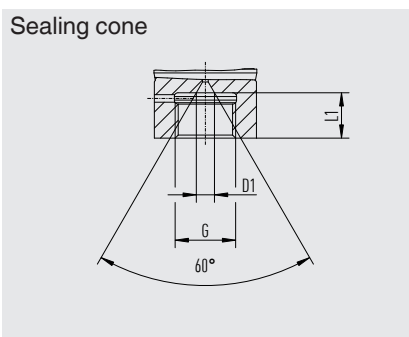


Weight: approx. 0.45 kg [0.99 lb]

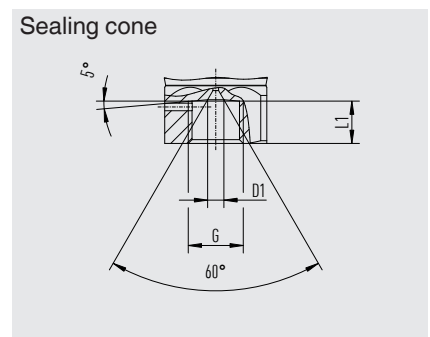
Process connections



G1	G2	L1	L2	L3
<b>G ½ B</b>	<b>G ¼ I</b>	13 [0.51]	15.5 [0.61]	20 [0.79]



G	L1	D1
<b>M16 x 1.5</b>	12 [0.47]	4.8 [0.189]
<b>M20 x 1.5</b>	15 [0.59]	

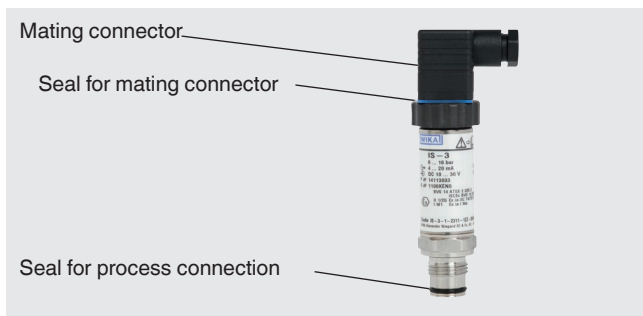


G	L1	D1
<b>9/16 UNF</b>	11.2 [0.44]	4.3 [0.17]

→ For further information on process connections, see technical information IN 00.14.



## Accessories and spare parts



Designation		Order number
<b>Mating connector (for ignition protection type Ex ia)</b>		
Angular connector DIN EN 175301-803 A	Metric, with 2 m moulded cable	11225793
	Metric, with 5 m moulded cable	11250186
Circular connector M12 x 1, 4-pin, straight	IP67, for self-assembly / without cable	2421262
Circular connector M12 x 1, 4-pin, angled	IP67, for self-assembly / without cable	2421270
<b>Seals for mating connector</b>		
Angular connector DIN 175301-803 A	Blue (WIKA)	1576240
	Brown (neutral)	11437902
<b>Seals for process connection</b>		
G ¼ B, EN 837	Copper	11250810
	Stainless steel	11250844
G ½ B, EN 837	Copper	11250861
	Stainless steel	11251042
M20 x 1.5, DIN 16288	Copper	11250861
	Stainless steel	11251042
G ¼ A	NBR	1537857
	FKM	1576534
G ½ A	NBR	1039067
	FKM	1039075
<b>Welding socket</b>		
G ½ B, flush		1192299
G 1 B, flush		1192264
G 1 B, hygienic flush		14145179

## Ordering information

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

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