

# Pressure transmitter

## For general industrial applications

### Model A-10

WIKA data sheet PE 81.60



For further approvals,  
see Page 10

## Applications

- Machine building
- Measurement and control technology
- Hydraulics and pneumatics
- Pumps and compressors
- Shipbuilding

## Special features

- Excellent quality and proven technology
- Exceptionally large variety covers almost all applications
- All configurable variants are available at short notice from quantities of 1 upwards
- Particularly cost-efficient

## Description

The field-proven model A-10 pressure transmitter (pressure sensor) is the all-rounder for pressure measurement in industrial environments. Compactly built, it can be integrated into a wide range of machine designs. The many measuring ranges, and special measuring ranges, contribute to its universal applicability.

### Excellent quality and proven technology

Our many years of experience and precise knowledge of customer needs have been incorporated into the development of the model A-10. It has been proving itself in countless applications for over ten years. The consistently high quality and its reliable function are appreciated worldwide and regularly confirmed by both internal and external audits. This bestseller can tolerate up to 100 million load cycles with almost constant precision.

### Exceptionally large variety covers almost all applications

Depending on the requirement, the model A-10 measures gauge pressure, vacuum and absolute pressure. It can be



Pressure transmitter, model A-10

flexibly configured into over 2 million variants and can thus be effortlessly integrated into almost any plant concept.

### All configurable variants are available at short notice from quantities of 1 upwards

Every custom-configured model A-10 will be ready for shipment, starting from a batch size of 1, no later than five working days after the order is placed. Large quantities can also be delivered quickly. The short delivery times help both OEMs to meet short production times and distributors to procure the right product for their customers quickly.

### Particularly cost-efficient

The model A-10 is particularly cost-efficient and offers very good performance, matched to the majority of applications in terms of precision and robustness. The high reliability and long service life ensure low maintenance and replacement costs.

Configurator



Standard articles



## Specifications

Optionally the model A-10 is available with an improved non-linearity. Depending on the selected non-linearity the following values result:

Accuracy specifications	Non-linearity $\leq \pm 0.5$ % of span	Non-linearity $\leq \pm 0.25$ % of span
<b>Non-linearity per BFSL per IEC 61298-2</b>		
Measuring range $\leq 0.1$ bar [ $\leq 1.45$ psi]	$\leq \pm 0.5$ % of span	-
Measuring range $> 0.1$ bar [ $> 1.45$ psi]	$\leq \pm 0.5$ % of span	$\leq \pm 0.25$ % of span <sup>1)</sup>
<b>Accuracy</b>	→ See "Max. measured error per IEC 61298-2"	
<b>Max. measured error per IEC 61298-2</b>		
Measuring range $\geq 0.6$ bar [ $\geq 8.7$ psi]	$\leq \pm 1$ % of span	$\leq \pm 0.5$ % of span
Measuring range $\geq 0.4$ bar [ $\geq 5.8$ psi]	$\leq \pm 1.2$ % of span	$\leq \pm 0.7$ % of span
Measuring range $\geq 0.25$ bar [ $\geq 3.6$ psi]	$\leq \pm 1.3$ % of span	$\leq \pm 0.8$ % of span
Measuring range $\geq 0.16$ bar [ $\geq 2.3$ psi]	$\leq \pm 1.5$ % of span	$\leq \pm 1$ % of span
Measuring range $\geq 0.1$ bar [ $\geq 1.45$ psi]	$\leq \pm 1.8$ % of span	-
Measuring range $\geq 0.05$ bar [ $\geq 0.73$ psi]	$\leq \pm 2.4$ % of span	-
<b>Zero point error <sup>2) 3)</sup></b>		
4 ... 20 mA / DC 1 ... 5 V / DC 0.5 ... 4.5 V / DC 0.5 ... 4.5 V ratiometric	$\leq \pm 0.3$ % of span	$\leq \pm 0.2$ % of span
DC 0 ... 10 V	$\leq \pm 0.5$ % of span	$\leq \pm 0.4$ % of span
DC 0 ... 5 V <sup>4)</sup>	$\leq \pm 0.6$ % of span	-

1) Not possible with output signal DC 0 ... 5 V.

2) Measuring ranges  $\leq 0.1$  bar [ $\leq 1.45$  psi] (or equivalent) only possible with  $\leq \pm 0.5$  % of span.

3) Outside reference conditions, add the temperature hysteresis for measuring ranges  $< 0.6$  bar [ $< 8.7$  psi].

4) Not possible with measuring ranges  $\leq 0.1$  bar [ $\leq 1.45$  psi] (or equivalent).

<b>Further details on: accuracy specifications</b>		
<b>Signal noise</b>	$\leq 0.2$ % of span	
<b>Non-repeatability per IEC 61298-2</b>		
Measuring range $< 0.1$ bar [ $< 1.45$ psi]	$\leq 0.2$ % of span	
Measuring range $> 0.1$ bar [ $> 1.45$ psi]	$\leq 0.1$ % of span	
<b>Temperature error at 0 ... 80 °C [32 ... 176 °F]</b>		
-	Typical	$\leq \pm 1$ % of span
Measuring range $< 1$ bar [ $< 14.5$ psi]	Maximum	$\leq \pm 2.5$ % of span
Measuring range $\geq 1$ bar [ $\geq 14.5$ psi]	Maximum	$\leq \pm 1.5$ % of span
Measuring range $\geq 10$ bar [ $\geq 145$ psi]	Maximum	$\leq \pm 2$ % of span
Measuring range $> 25$ bar [ $> 360$ psi]	Maximum	$\leq \pm 1.5$ % of span
<b>Temperature hysteresis -30 ... +100 °C [-22 ... +212 °F] for measuring ranges <math>&lt; 0.6</math> bar [<math>&lt; 8.7</math> psi]</b>		
Measuring range $< 0.6$ bar [ $< 8.7$ psi]	Gauge pressure	$\leq 0.2$ % of span
	Absolute pressure	$\leq 0.2$ % of span
Measuring range $< 0.4$ bar [ $< 5.8$ psi]	Gauge pressure	$\leq 0.3$ % of span
	Absolute pressure	$\leq 0.3$ % of span
Measuring range $< 0.25$ bar [ $< 3.6$ psi]	Gauge pressure	$\leq 0.5$ % of span
	Absolute pressure	$\leq 0.5$ % of span
Measuring range $< 0.16$ bar [ $< 2.3$ psi]	Gauge pressure	$\leq 0.7$ % of span
	Absolute pressure	$\leq 0.8$ % of span
Measuring range $< 0.1$ bar [ $< 1.45$ psi]	Gauge pressure	$\leq 1.4$ % of span

## Further details on: accuracy specifications

### Long-term drift per IEC 61298-2

Measuring range $\leq 0.1$ bar [ $\leq 1.45$ psi]	$\leq \pm 0.5$ % of span <sup>1)</sup>
Measuring range $\leq 0.4$ bar [ $\leq 5.8$ psi]	$\leq \pm 0.2$ % of span
Measuring range $> 0.4$ bar [ $> 5.8$ psi]	$\leq \pm 0.1$ % of span

### Additional zero point error depending on the mounting position for measuring ranges $\leq 1$ bar [ $\leq 15$ psi]

Mounting position 180°, vertical, top process connection	$\leq 1$ mbar [ $\leq 0.015$ psi]
Mounting position 90°, horizontal	$\leq 0.6$ mbar [ $\leq 0.009$ psi]

### Reference conditions

Per IEC 61298-1

1) Outside reference conditions, add the temperature hysteresis for measuring ranges  $\leq 0.1$  bar [ $\leq 1.45$  psi].

## Measuring ranges, gauge pressure

bar	
0 ... 0.05	0 ... 10 <sup>1)</sup>
0 ... 0.1	0 ... 16 <sup>1)</sup>
0 ... 0.16	0 ... 25 <sup>1)</sup>
0 ... 0.25	0 ... 40
0 ... 0.4	0 ... 60
0 ... 0.6	0 ... 100
0 ... 1	0 ... 160
0 ... 1.6	0 ... 250
0 ... 2.5	0 ... 400
0 ... 4	0 ... 600
0 ... 6	0 ... 1,000

1) If the medium is water, the "increased stability" option should be used.

psi	
0 ... 1	0 ... 300 <sup>1)</sup>
0 ... 5	0 ... 500
0 ... 15	0 ... 1,000
0 ... 25	0 ... 1,500
0 ... 30	0 ... 2,000
0 ... 50	0 ... 3,000
0 ... 100	0 ... 5,000
0 ... 160 <sup>1)</sup>	0 ... 10,000
0 ... 200 <sup>1)</sup>	0 ... 15,000

1) If the medium is water, the "increased stability" option should be used.

inWC	
0 ... 20	0 ... 120
0 ... 40	0 ... 150
0 ... 60	0 ... 200
0 ... 80	0 ... 250
0 ... 100	0 ... 400

## Measuring ranges, absolute pressure

bar abs.	
0 ... 0.1	0 ... 2.5
0 ... 0.16	0 ... 4
0 ... 0.25	0 ... 6
0 ... 0.4	0 ... 10
0 ... 0.6	0 ... 16
0 ... 1	0 ... 25
0 ... 1.6	-

psi abs.	
0 ... 5	0 ... 100
0 ... 15	0 ... 150
0 ... 25	0 ... 200
0 ... 30	0 ... 300
0 ... 50	-

inWC abs.	
0 ... 40	0 ... 150
0 ... 60	0 ... 200
0 ... 80	0 ... 250
0 ... 100	0 ... 400
0 ... 120	-

## Vacuum and compound measuring ranges

bar	
-0.025 ... +0.025	-0.3 ... +0.3
-0.05 ... 0	-0.4 ... 0
-0.05 ... +0.05	-0.5 ... +0.5
-0.05 ... +0.15	-0.6 ... 0
-0.05 ... +0.2	-1 ... 0
-0.05 ... +0.25	-1 ... +0.6
-0.1 ... 0	-1 ... +1.5
-0.1 ... +0.1	-1 ... +3
-0.15 ... +0.15	-1 ... +5
-0.16 ... 0	-1 ... +9 <sup>1)</sup>
-0.2 ... +0.2	-1 ... +15 <sup>1)</sup>
-0.25 ... 0	-1 ... +24 <sup>1)</sup>

1) If the medium is water, the "increased stability" option should be used.

→ Other measuring ranges on request.

psi	
-1 ... 0	-30 inHg ... +100
-30 inHg ... 0	-30 inHg ... +160 <sup>1)</sup>
-30 inHg ... +15	-30 inHg ... +200 <sup>1)</sup>
-30 inHg ... +30	-30 inHg ... +300 <sup>1)</sup>
-30 inHg ... +60	-

1) If the medium is water, the "increased stability" option should be used.

inWC	
-10 ... +10	-80 ... 0
-20 ... 0	-100 ... 0
-20 ... +20	-100 ... +100
-40 ... 0	-120 ... 0
-40 ... +40	-125 ... +125
-50 ... +50	-150 ... 0
-60 ... 0	-200 ... +200
-75 ... +75	-250 ... 0

### Further details on: measuring range

<b>Units</b>	<ul style="list-style-type: none"> <li>■ bar</li> <li>■ psi</li> <li>■ inWC</li> <li>■ mbar</li> <li>■ kg/cm<sup>2</sup></li> <li>■ MPa</li> <li>■ kPa</li> </ul>	
<b>Maximum working pressure</b>	<ul style="list-style-type: none"> <li>→ Corresponds to the upper measuring range value / measuring range full scale value</li> <li>→ Any permanent operation above the maximum working pressure is not permissible</li> </ul>	
<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.	
bar	Measuring ranges ≤ 0.1 bar	0.2 bar
	Measuring ranges ≤ 0.4 bar	1 bar
	Measuring ranges < 1.6 bar	3 bar
	Measuring ranges ≥ 1.6 bar	2 times
	Measuring range 1,000 bar	1.43 times
bar abs.	Measuring ranges ≤ 0.4 bar abs.	1 bar abs.
	Measuring ranges < 1.6 bar abs.	3 bar abs.
	Measuring ranges ≥ 1.6 bar abs.	2 times
psi	Measuring ranges ≤ 1 psi	3 psi
	Measuring ranges ≤ 5 psi	14.5 psi
	Measuring ranges < 25 psi	45 psi
	Measuring ranges ≥ 25 psi	2 times
	Measuring ranges 160 psi, 1,000 psi, 1,500 psi and 10,000 psi	1.7 times
	Measuring range 15,000 psi	1.43 times
psi abs.	Measuring ranges ≤ 5 psi abs.	14.5 psi abs.
	Measuring ranges < 25 psi abs.	45 psi abs.
	Measuring ranges ≥ 25 psi abs.	2 times

Further details on: measuring range		
inWC	Measuring ranges ≤ 40 inWC	80 inWC
	Measuring ranges ≤ 200 inWC	400 inWC
	Measuring ranges ≤ 400 inWC	1,200 inWC
inWC abs.	Measuring ranges ≤ 200 inWC abs.	400 inWC abs.
	Measuring ranges ≤ 400 inWC abs.	1,200 inWC abs.
<b>Vacuum resistance</b>	Yes (restriction with measuring ranges ≤ 0.1 bar [≤ 1 psi, 40 inWC]: -0.2 bar [-3 psi, -80 inWC])	
<b>Leakage rate</b>	<ul style="list-style-type: none"> <li>■ &lt; 5*10<sup>-3</sup> mbar*/l/s</li> <li>■ &lt; 1*10<sup>-6</sup> mbar*/l/s <sup>1) 2)</sup></li> </ul>	

1) With hydrogen applications

2) With applications of hazardous fluids, liquids and gases in accordance with directive 2014/68/EU article 13, regulation (EC) no. 1272/2008 or GHS1.

→ Further overpressure limits on request

Process connection				
Standard	Thread size	Max. measuring range	Overpressure limit	Seal
<b>EN 837</b>	G 1/8 B	400 bar [5,000 psi]	572 bar [8,290 psi]	Copper
	G 1/4 B	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	<ul style="list-style-type: none"> <li>■ Copper</li> <li>■ Stainless steel</li> </ul>
	G 1/4 female thread	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	Without
	G 3/8 B	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	<ul style="list-style-type: none"> <li>■ Copper</li> <li>■ Stainless steel</li> </ul>
	G 1/2 B	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	<ul style="list-style-type: none"> <li>■ Copper</li> <li>■ Stainless steel</li> </ul>
<b>DIN EN ISO 1179-2</b>	G 1/4 A	600 bar [8,000 psi]	858 bar [12,440 psi]	<ul style="list-style-type: none"> <li>■ NBR</li> <li>■ EPDM</li> </ul>
		1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	FPM/FKM
	G 1/2 A	600 bar [8,000 psi]	858 bar [12,440 psi]	<ul style="list-style-type: none"> <li>■ NBR</li> <li>■ FPM/FKM</li> </ul>
<b>DIN EN ISO 9974-2</b>	M14 x 1.5	600 bar [8,000 psi]	858 bar [12,440 psi]	<ul style="list-style-type: none"> <li>■ NBR</li> <li>■ FPM/FKM</li> <li>■ EPDM</li> </ul>
<b>ANSI/ASME B1.20.1</b>	1/8 NPT	400 bar [5,000 psi]	572 bar [8,290 psi]	-
	1/4 NPT	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	
	1/4 NPT, female thread	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	
	1/2 NPT	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	
<b>DIN 16288</b>	M20 x 1.5	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	<ul style="list-style-type: none"> <li>■ Copper</li> <li>■ Stainless steel</li> </ul>
<b>ISO 7</b>	R 1/4	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	-
	R 3/8	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	
	R 1/2	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	
<b>KS</b>	PT 1/4	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	-
	PT 1/2	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	
	PT 3/8	1,000 bar [15,000 psi]	1,480 bar [21,400 psi]	
<b>SAE J514</b>	7/16-20 UNF O-ring BOSS	600 bar [8,000 psi]	858 bar [12,440 psi]	FPM/FKM
-	Flange connection	100 bar [1,000 psi]	143 bar [2,070 psi]	Without

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 material of the mating thread and the prevailing operating conditions.

Further details on: process connection	
Max. measuring range	→ See table "Process connection" on page 5
Overpressure limit	→ See table "Process connection" on page 5
Seal	→ See table "Process connection" on page 5
Pressure port diameter	<ul style="list-style-type: none"> <li>■ 3.5 mm (standard for all process connections)</li> <li>■ 0.6 mm (compatible with all male threads)</li> <li>■ 0.3 mm (compatible with all male threads)</li> <li>■ 6 mm (compatible with G ¼ A, others on request)</li> <li>■ T-restrictor possible (for process connections G ¼ B, G ⅜ B, G ½ B and M20 x 1.5)</li> </ul>
Possible restrictions	Depending on the choice of seal on the process connection, there may be restrictions in the permissible temperature range.
NBR	-30 ... +100 °C [-22 ... +212 °F]
FPM/FKM	<ul style="list-style-type: none"> <li>■ -20 ... +100 °C [-4 ... +212 °F]</li> <li>■ -40 ... +100 °C [-40 ... +212 °F]</li> </ul>
EPDM	-40 ... +100 °C [-40 ... +212 °F]
Copper	-40 ... +100 °C [-40 ... +212 °F]
Stainless steel	-40 ... +100 °C [-40 ... +212 °F]

Output signal		
<b>Signal type</b>		
Current (2-wire)	4 ... 20 mA	
Voltage (3-wire)	<ul style="list-style-type: none"> <li>■ DC 0 ... 10 V</li> <li>■ DC 0 ... 5 V</li> <li>■ DC 1 ... 5 V</li> <li>■ DC 0.5 ... 4.5 V</li> </ul>	
Ratiometric (3-wire)	DC 0.5 ... 4.5 V	
<b>Load Ω</b>		
Current (2-wire)	≤ (auxiliary power - 8 V) / 0.02 A	
Voltage (3-wire)	> Maximum output signal / 1 mA	
Ratiometric (3-wire)	> 10k	
<b>Voltage supply</b>		
Auxiliary power	Output signal 4 ... 20 mA	<ul style="list-style-type: none"> <li>■ DC 8 ... 30 V</li> <li>■ DC 8 ... 35 V <sup>1) 2)</sup></li> </ul>
	Output signal DC 0 ... 5 V <sup>1) 3)</sup>	<ul style="list-style-type: none"> <li>■ DC 8 ... 30 V</li> <li>■ DC 8 ... 35 V</li> </ul>
	Output signal DC 1 ... 5 V	<ul style="list-style-type: none"> <li>■ DC 8 ... 30 V</li> <li>■ DC 8 ... 35 V</li> </ul>
	Output signal DC 0.5 ... 4.5 V	<ul style="list-style-type: none"> <li>■ DC 8 ... 30 V</li> <li>■ DC 8 ... 35 V</li> </ul>
	Output signal DC 0 ... 10 V	<ul style="list-style-type: none"> <li>■ DC 14 ... 30 V</li> <li>■ DC 14 ... 35 V</li> </ul>
	Output signal DC 0.5 ... 4.5 V, ratiometric	DC 5 V ±10 %
Current supply	Current (2-wire)	Signal current, max. 25 mA
	Voltage (3-wire)	8 mA
	Ratiometric (3-wire)	8 mA

Output signal		
Dynamic behaviour		
Settling time per IEC 61298-2	Measuring range $\geq 0.4$ bar [ $\geq 5.8$ psi]	< 1 ms <sup>4)</sup>
	Measuring range < 0.4 bar [ $< 5.8$ psi]	< 1 min
Switch-on time	Measuring range $\geq 0.4$ bar [ $\geq 5.8$ psi]	< 15 ms
	Measuring range < 0.4 bar [ $< 5.8$ psi]	< 1 min

- 1) Not possible with non-linearity 0.25 % BFSL.  
2) Only possible for temperatures to 80 °C [176 °F].  
3) Not possible with measuring ranges  $\leq 0.1$  bar [ $\leq 1.45$  psi] (or equivalent).  
4) < 300 ms with DNV approval and measuring range  $\geq 0.4$  bar [ $\geq 5.8$  psi] ...  $\leq 0.6$  bar [ $\leq 8.7$  psi].

→ Other output signals on request.

Electrical connection				
Connection type	IP code <sup>1)</sup>	Wire cross-section	Cable diameter	Cable material
<b>Angular connector DIN EN 175301-803 A</b>				
With mating connector, PG9 (standard)	IP65	To max. 1.5 mm <sup>2</sup>	6 ... 8 mm	-
With mating connector, PG11	IP65	To max. 1.5 mm <sup>2</sup>	8 ... 10 mm	
With mating connector, PG13.5 <sup>2)</sup>	IP65	To max. 1.5 mm <sup>2</sup>	10 ... 14 mm	
With moulded cable <sup>3)</sup>	IP65	3 x 0.75 mm <sup>2</sup>	6 mm	PUR
<b>Angular connector DIN EN 175301-803 C <sup>3)</sup></b>				
With mating connector	IP65	To max. 0.75 mm <sup>2</sup>	4.5 ... 6 mm	-
<b>Circular connector M12 x 1 (4-pin)</b>				
Without mating connector	IP67	-	-	-
Straight with moulded cable <sup>3)</sup>	IP67	3 x 0.34 mm <sup>2</sup>	4.3 mm	PUR
Angled with moulded cable <sup>3)</sup>	IP67	3 x 0.34 mm <sup>2</sup>	4.3 mm	PUR
<b>Cable outlet</b>				
Unshielded <sup>3)</sup>	IP67	3 x 0.34 mm <sup>2</sup>	4 mm	PUR
OEM version, unshielded <sup>4)</sup>	IP67	3 x 0.14 mm <sup>2</sup>	2.85 mm	TPU

- 1) The stated IP codes only apply when plugged in using mating connectors that have the appropriate IP code.  
2) Not feasible with cULus approval.  
3) Not feasible with DNV approval.  
4) To max. 90 °C [194 °F].

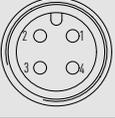
Further details on: electrical connection	
Connection type	→ See table "Electrical connection" on page 7
Wire cross-section	→ See table "Electrical connection" on page 7
Cable diameter	→ See table "Electrical connection" on page 7
Pin assignment	→ See table "Pin assignment"
Ingress protection (IP code) per IEC 60529	→ See table "Electrical connection" on page 7
Short-circuit resistance	S+ vs. U-
Reverse polarity protection	U+ vs. U- No reverse polarity protection with ratiometric output signal
Insulation voltage	DC 500 V

## Pin assignment

All connectors with moulded cable have the same colour assignment as the unshielded cable outlet.

Angular connector DIN 175301-803 A			
		2-wire	3-wire
	U <sub>+</sub>	1	1
	U <sub>-</sub>	2	2
	S <sub>+</sub>	-	3

Angular connector DIN 175301-803 C			
		2-wire	3-wire
	U <sub>+</sub>	1	1
	U <sub>-</sub>	2	2
	S <sub>+</sub>	-	3

Circular connector M12 x 1 (4-pin)			
		2-wire	3-wire
	U <sub>+</sub>	1	1
	U <sub>-</sub>	3	3
	S <sub>+</sub>	-	4

Cable outlet, unshielded			
		2-wire	3-wire
	U <sub>+</sub>	Brown	Brown
	U <sub>-</sub>	Blue	Blue
	S <sub>+</sub>	-	Black

Cable outlet, OEM version, unshielded			
		2-wire	3-wire
	U <sub>+</sub>	Brown	Brown
	U <sub>-</sub>	Blue	Blue
	S <sub>+</sub>	-	Black

### Legend

- U<sub>+</sub> Positive power supply terminal
- U<sub>-</sub> Negative power supply terminal
- S<sub>+</sub> Analogue output

Material	
<b>Material (wetted)</b>	
< 10 bar [ $< 150$ psi]	Stainless steel 316L
$\geq 10$ bar [ $\geq 150$ psi]	Stainless steel 316L and PH grade steel
$\leq 25$ bar abs. [ $\leq 400$ psi abs.]	Stainless steel 316L
<b>Material (in contact with the environment)</b>	<ul style="list-style-type: none"> <li>■ Stainless steel 316L</li> <li>■ HNBR</li> <li>■ PA and PBT</li> <li>■ TPU and PUR (cable outlet)</li> </ul>
<b>Pressure transmission medium</b>	
< 10 bar [ $< 150$ psi]	Synthetic oil
$\geq 10$ bar [ $\geq 150$ psi]	Dry measuring cell
$\leq 25$ bar abs. [ $\leq 400$ psi abs.]	Synthetic oil

Operating conditions			
	Medium temperature limit	Ambient temperature limit <sup>2) 5)</sup>	Storage temperature limit
<b>Temperature ranges <sup>1)</sup></b>			
Voltage signal, current signal and ratiometric	0 ... 80 °C [32 ... 176 °F]	0 ... 80 °C [32 ... 176 °F]	-40 ... +70 °C [-40 ... +158 °F]
<b>Extended temperature ranges <sup>1)</sup></b>			
Voltage signal	-30 ... +100 °C [-22 ... +212 °F]	-30 ... +100 °C [-22 ... +212 °F]	-40 ... +70 °C [-40 ... +158 °F]
Current signal <sup>3) 4)</sup>	-40 ... +100 °C [-40 ... +212 °F]	-40 ... +100 °C [-40 ... +212 °F]	-40 ... +70 °C [-40 ... +158 °F]

1) For restrictions of the temperature ranges due to the seal used, see "Further details on: process connection".

2) Restrictions and derating of the ambient temperature depend on the medium temperature.

3) With cULus approval the minimum ambient and medium temperature is -30 °C [-22 °F].

4) Only with auxiliary power DC 8 ... 30 V.

5) Only with housed mounting location that is protected from condensation.

Further details on: operating conditions					
<b>Humidity</b>	0 ... 90 % relative humidity (non-condensing)				
<b>Operating altitude</b>	≤ 2,000 m above seal level				
<b>Pollution degree</b>	2				
<b>Overvoltage category</b>	I				
<b>Vibration resistance per IEC 60068-2-6</b>	<ul style="list-style-type: none"> <li>■ 10g</li> <li>■ 20g (≥ -30 °C [-22 °F]) <sup>1)</sup> (on request)</li> </ul>				
<b>Shock resistance per IEC 60068-2-27</b>	<table border="0"> <tr> <td>With ≥ -30 °C [-22 °F]</td> <td>500g</td> </tr> <tr> <td>With &lt; -30 °C [-22 °F]</td> <td>100g</td> </tr> </table>	With ≥ -30 °C [-22 °F]	500g	With < -30 °C [-22 °F]	100g
With ≥ -30 °C [-22 °F]	500g				
With < -30 °C [-22 °F]	100g				
<b>Ingress protection (IP code) per IEC 60529</b>	→ See "Electrical connection"				
<b>Service life</b>					
Measuring range ≥ 600 bar [≥ 8,000 psi]	10 million load cycles				
Measuring range > 0.1 bar [> 1 psi]	100 million load cycles				
Measuring range ≤ 0.1 bar [≤ 1 psi]	10 million load cycles				

1) With DNV approval only feasible for measuring range ≥ 0 ... 1.6 bar [≥ 0 ... 25 psi].

Options for special media	
<b>Oil- and grease-free</b>	
Residual hydrocarbon	< 1,000 mg/m <sup>2</sup>
<b>Water (increased stability)</b>	
Measuring ranges	10 ... 25 bar [150 ... 360 psi]

Packaging and instrument labelling	
<b>Packaging</b>	<ul style="list-style-type: none"> <li>■ Individual packaging</li> <li>■ Multiple packaging (up to 20 pieces possible)</li> </ul>
<b>Instrument labelling</b>	<ul style="list-style-type: none"> <li>■ WIKA product label, glued</li> <li>■ Customised product label on request</li> </ul>

## Approvals

Logo	Description	Region
	<b>EU declaration of conformity</b>	European Union
	EMC Directive EN 61326 emission (group 1, class B) and immunity (industrial application)	
	Pressure Equipment Directive	
	RoHS directive	
	<b>EAC</b>	Eurasian Economic Community
	EMC Directive	
	<b>UL</b> Safety (e.g. electr. safety, overpressure, ...)	USA and Canada

## Optional approvals

Logo	Description	Region
	<b>PAC Kazakhstan</b> Metrology, measurement technology	Kazakhstan
-	<b>MChS</b> Permission for commissioning	Kazakhstan
	<b>PAC Ukraine</b> Metrology, measurement technology	Ukraine
	<b>PAC Uzbekistan</b> Metrology, measurement technology	Uzbekistan
	<b>DNV <sup>1)</sup></b> Ships, shipbuilding (e.g. offshore)	Germany
-	<b>CRN</b> Safety (e.g. electr. safety, overpressure, ...)	Canada
	<b>NSF</b> NSF/ANSI/CAN 61 Drinking Water System Components – Health Effects	USA and Canada

1) Not for measuring ranges < 0.16 bar [< 2.3 psi] and not for medium temperature range -40 ... +100 °C [-40 ... +212 °F].

## Manufacturer's declaration

Logo	Description
-	<b>China RoHS directive</b>
<b>MTTF</b>	> 100 years

## Test report

Test report	
<b>Non-linearity 0.5 %</b>	3 measuring points
<b>Non-linearity 0.25 %</b>	5 measuring points

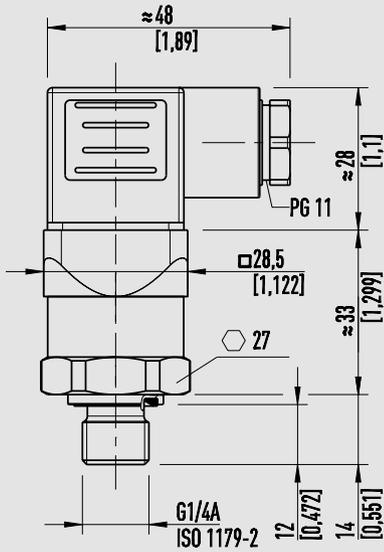
## Certificates

Certificates	
<b>Certificate</b>	2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, material proof, indication accuracy)

→ For approvals and certificates, see website

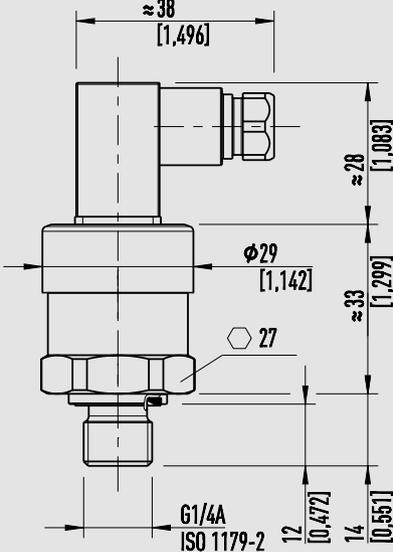
## Dimensions in mm [in]

With angular connector form A



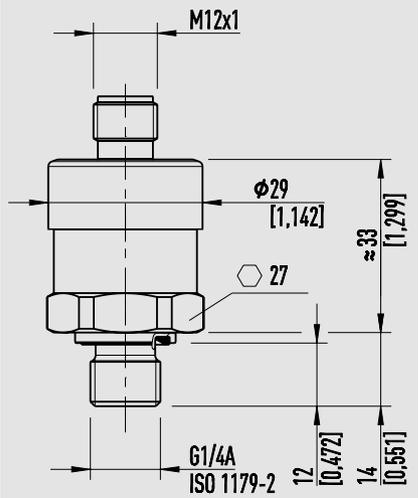
Weight: approx. 80 g [0.18 lb]

With angular connector form C



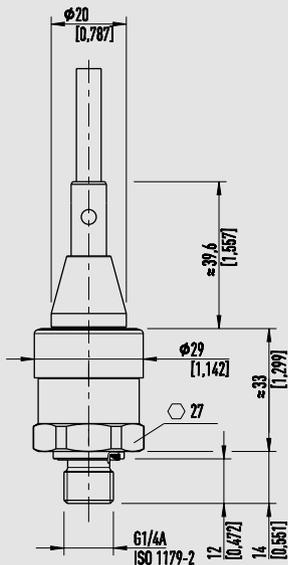
Weight: approx. 80 g [0.18 lb]

With circular connector M12 x 1



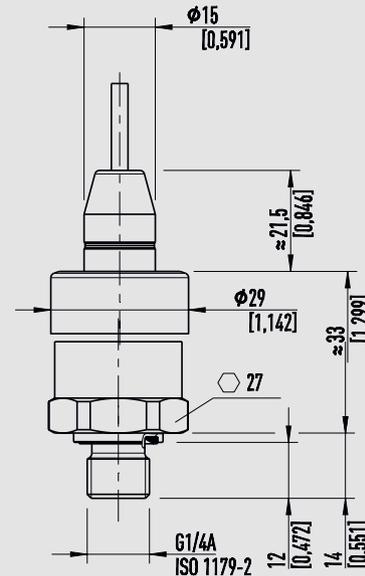
Weight: approx. 80 g [0.18 lb]

With standard cable outlet, unshielded



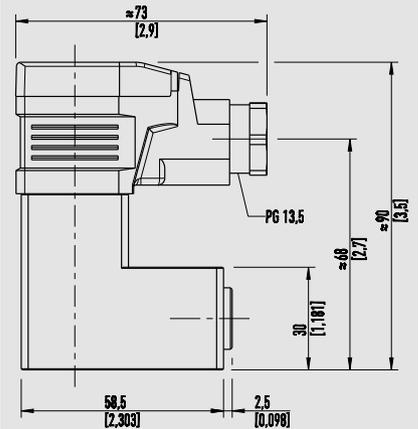
Weight: approx. 80 g [0.18 lb]

With cable outlet, OEM version, unshielded



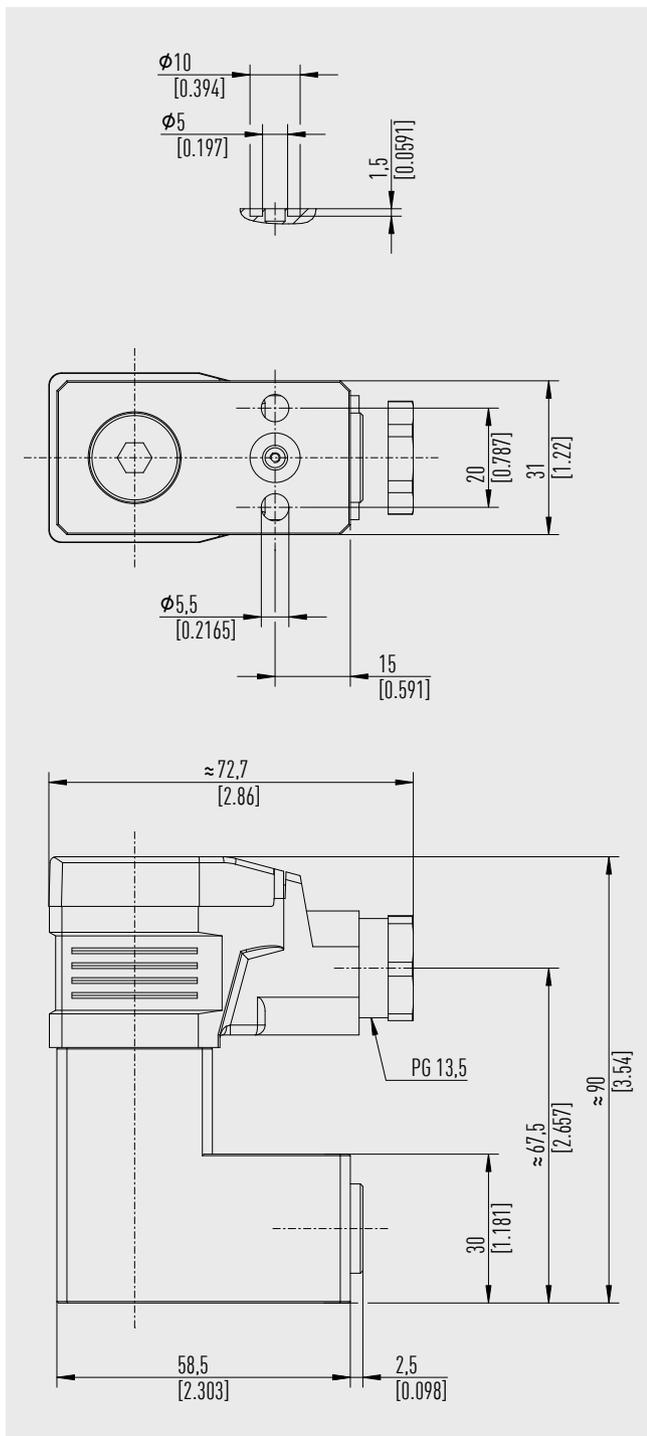
Weight: approx. 80 g [0.18 lb]

With angular connector form A and flange connection



Weight: approx. 350 g [0.77 lb]

## Process connections



<b>Flange connection</b>	For dimensions, see drawing
--------------------------	-----------------------------

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



## Ordering information

Model / Non-linearity / Measuring range / Process connection / Seal / Permissible medium temperature range / Output signal / Auxiliary power / Electrical connection / Certificates / Approvals



© 2011 WIKA Alexander Wiegand SE & Co. KG, all rights reserved.  
The specifications given in this document represent the state of engineering at the time of publishing.  
We reserve the right to make modifications to the specifications and materials.  
In case of a different interpretation of the translated and the English data sheet, the English wording shall prevail.

