

OEM pressure transmitter

For general industrial applications

Model OT-1

WIKA data sheet PE 81.42

Applications

- Machine building
- Hydraulics
- Pneumatics

Special features

- Fully automated production for OEM volumes
- Compact design
- MTTFd values > 100 years

**Pressure transmitter, model OT-1**

Description

For universal application

The OT-1 is the ideal product for customers who want to use a cost optimised pressure transmitter.

As many electrical output signals and pressure connections are available, the pressure transmitter can be easily integrated into a wide variety of applications.

The case consists of a highly resistive, fiberglass-enforced plastic material (PBT). This material has been successfully used in the automotive industry for many years. Inside the case a metal pod is responsible for a good EMI-protection.

Excellent performance

The hermetically welded thin film measuring cell guarantees long-term leak tightness. There are no additional sealings required.

The thin film measuring cell is made of high quality stainless steel using sputtering technology to offer high long-term stability and excellent burst pressure values.

Interesting price/performance ratio

The pressure transmitter OT-1 has been specially developed for OEM applications in the machine building industry, particularly hydraulics and pneumatics. The transmitter is manufactured on a fully automated production line.

For high-volume OEM requirements this product concept is particularly interesting due to its excellent price/performance ratio.






Individual versions to customer specifications

Due to its manufacturing know-how gained in many years of experience WIKA can offer customised solutions.

Specifications											
Pressure ranges in bar	0 ... 6	0 ... 10	0 ... 16	0 ... 25	0 ... 40	0 ... 60	0 ... 100	0 ... 160	0 ... 250	0 ... 400	0 ... 600
Over pressure safety in bar	20	20	32	50	80	120	200	320	500	800	1200
Burst pressure in bar	100	100	160	250	400	550	800	1000	1200	1700	2400
Materials											
Wetted parts	Stainless steel										
Case	Highly resistive, fiberglass-enforced plastic (PBT)										
	Signal output			Power supply U₊				Maximum load R_A			
	4 ... 20 mA, 2-wire			DC 8 ... 36 V				R _A ≤ (U ₊ – 8 V)/0.02 A			
	1 ... 6 V, 3-wire			DC 9 ... 36 V				R _A > 2.5 kOhm			
	1 ... 5 V, 3-wire			DC 8 ... 36 V				R _A > 2.5 kOhm			
	0 ... 10 V, 3-wire			DC 14 ... 36 V				R _A > 5 kOhm			
	0.5 ... 4.5 V, ratiometric			DC 5 ±0.5 V				R _A > 4.5 kOhm			
	Others on request										
Response time (10 ... 90 %)	≤ 2 ms										
Insulation voltage	DC 500 V										
Accuracy	≤ 1.0 % of span										
	≤ 2.0 % of span for pressure ranges ≤ 16 bar										
Non-linearity	≤ 0.4 % of span (BFSL) according to IEC 61298-2										
1-year stability	≤ 0.3 % of span (at reference conditions)										
Permissible temperature											
Medium	-40 ... +125 °C [-40 ... +257 °F]										
Ambience	-40 ... +100 °C [-40 ... +212 °F]										
	With cable version limited temperature range from -40 ... +90 °C [-40 ... +194 °F]										
Storage	-40 ... +120 °C [-40 ... +248 °F]										
	With cable version limited temperature range from -40 ... +90 °C [-40 ... +194 °F]										
Rated temperature range	0 ... +80 °C [+32 ... 176 °F]										
Temperature error within rated temperature range	≤ 1 % of span typ. ≤ 1.5 max.										
Wiring protection											
Short-circuit proofness	S+ towards U-										
Reverse polarity protection	U+ towards U- (not with ratiometric output signal)										
Weight	Ca. 70 g										

1) Including non-linearity, hysteresis, non-repeatability, zero point and full scale error (corresponds to error of measurement per IEC 61298-2).

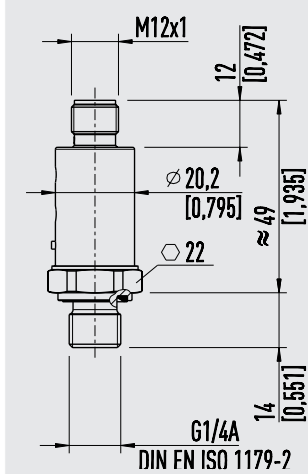
Approvals

Logo	Description	Country
	EU declaration of conformity <ul style="list-style-type: none"> ■ EMC directive, EN 61326 emission (group 1, class B) and immunity (industrial application) ■ Pressure equipment directive ■ RoHS directive 	European Union
	GOST Metrology, measurement technology	Russia
	KazInMetr Metrology, measurement technology	Kazakhstan
-	MTSCHS Permission for commissioning	Kazakhstan
	UkrSEPRO Metrology, measurement technology	Ukraine
	Uzstandard Metrology, measurement technology	Uzbekistan

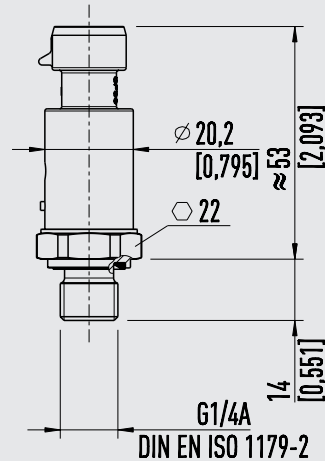
Dimensions in mm [in]

Electrical connections

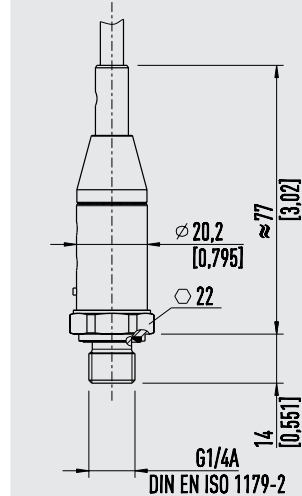
Circular connector, M 12 x 1



Connector, Metri Pack Serie 150

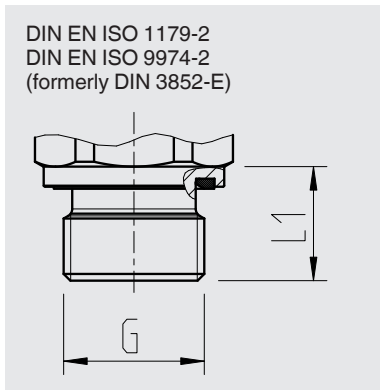


Flying leads

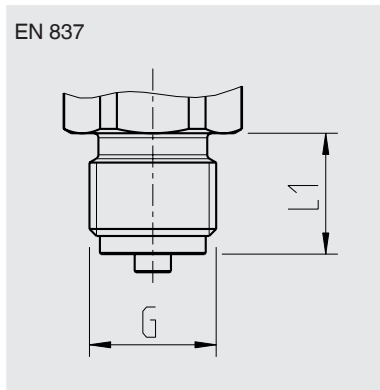


Others on request.

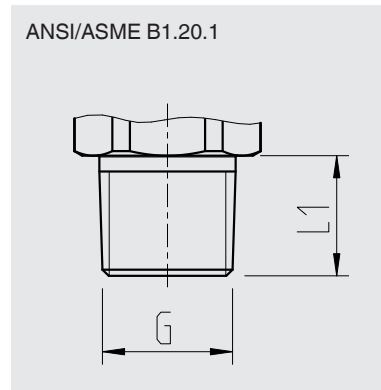
Pressure connections



G	L1
G ¼ A	14 [0.55]
M14 x 1,5	14 [0.55]



G	L1
G ¼ B	13 [0.51]



G	L1
¼ NPT	13 [0.51]

Others on request.

For installation and safety instructions see the operating instructions for this product.

For tapped holes and welding sockets please see Technical Information IN 00.14 for download at www.wika.de

Electrical connections

Electrical connections									
	M 12x1 circular connector, 4-pin			Connector Metri Pack Series 150, 3-pin			Flying leads (TPE with 0.5 m or 2 m length)		
2-wire	U+ = 1	U- = 3		U+ = B	U- = A		U+ = brown	U- = green	
3-wire	U+ = 1	U- = 3	S+ = 4	U+ = B	U- = A	S+ = C	U+ = brown	U- = green	S+ = white
Wire gauge	-			-			0.34 mm ² (with end splices)		
Diameter of cable	-			-			5.2 mm		
Ingress protection per IEC 60529	IP67 ¹⁾			IP67 ¹⁾			IP67		

¹⁾ The ingress protection classes specified only apply while the pressure transmitter is connected with female connectors that provide the corresponding ingress protection.

Legend

- 2-wire The two connection lines are used for the power supply. The measurement signal also provides the supply current.
- 3-wire Two of the connection lines are used for the power supply. One connection line is used for the measurement signal.
- U+ Positive power terminal
- U- Negative power terminal
- S+ Positive measurement terminal

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