

# OEM Pressure transmitter with ceramic thick film technology Model OC-1

WIKA Data Sheet PE 81.41

## Applications

- Facility management
- Process engineering
- Mechanical engineering

## Special Features

- Pressure ranges from 0 ... 2 bar up to 0 ... 100 bar
- Very good price / performance ratio
- Compact size
- Excellent long-term stability

**Fig. Pressure transmitter OC-1**

## Description

### Various application possibilities

Due to the combination of the integrated corrosion free ceramic thickfilm sensor and the individual sealing gasket, the pressure transmitter model OC-1 can be used for a variety of measuring media.

With pressure ranges from 0 ... 2 bar up to 0 ... 100 bar the OC-1 is especially suited to meet the demands of pneumatic applications such as compressors, as well as facility management.

The rugged case – made of brass or stainless steel based on the customer's requirement – offers ingress protection up to IP 67. The pressure transmitters can be supplied with a non-stabilised direct voltage of 8 (14) ... 30 V and provide nearly all commonly used output signals.

The monolithic structure of the sensor – made of one piece– is the basis for very good long-term stability, as well as good hysteresis values.

### Interesting price/performance ratio

The product concept of the OC-1 is particularly interesting due to its excellent price/performance ratio.

### Individual versions to customer specifications

State-of-the-art manufacturing lines make a fast and reliable supply of high quality transmitters possible even for large quantities. Thus, the OC-1 is the ideal transmitter for OEM applications.

Customized solutions can be offered for large quantities.

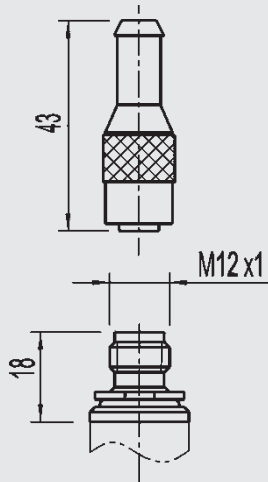
Specifications		Model OC-1					
Pressure ranges	bar	2	5	10	20	50	100
Over pressure safety <sup>1)</sup>	bar	5	10	20	40	100	200
Burst pressure	bar	6	12	25	50	120	250
{gauge pressure and compound range are available}							
<sup>1)</sup> The specifications of WIKA's ceramic thick film sensors will not be permanently affected by pressure loads up to the burst pressure.							
Materials							
■ Sealing ring		NBR {EPDM} {Others on request}					
■ Diaphragm		Ceramic Al <sub>2</sub> O <sub>3</sub> 96%					
■ Case		Brass 2.0401 (≥ 60 bar stainless steel) {Stainless steel}					
Signal output		Output signals	Power supply		Load		
Power supply		4 ... 20 mA, 2-wire	8 ... 30 DC V		R <sub>A</sub> ≤ (U <sub>B</sub> - 8 V) / 0.02 A with		
Load					R <sub>A</sub> in Ohm and U <sub>B</sub> in Volt		
		0.1 ... 10 V, 3-wire	14 ... 30 DC V		R <sub>A</sub> > 10 k		
		0.1 ... 5 V, 3-wire	8 ... 30 DC V		R <sub>A</sub> > 5 k		
		0.5 ... 4.5 V, 3-wire	8 ... 30 DC V		R <sub>A</sub> > 4.5 k		
		0.5 ... 4.5 V, ratiometric	5 ± 0.25 DC V		R <sub>A</sub> > 4.5 k		
Dielectric strength	DC V	500					
Accuracy	% of span	≤ 0.5 <sup>2)</sup> (BFSL)					
	% of span	≤ 1 <sup>2) 3)</sup>					
<sup>2)</sup> Limited accuracy of 0.75 % BFSL / 1.5 % <sup>3)</sup> for versions with pressure range 2 bar in combination with stainless steel							
<sup>3)</sup> Including non-linearity, hysteresis, non-repeatability, zero point and full scale error (corresponds to error of measurement per IEC 61298-2). Adjusted in vertical mounting position with lower pressure connection.							
Non-linearity	% of span	≤ 0.4 (BFSL) according to IEC 61298-2					
1-year stability	% of span	≤ 0.3 (at reference conditions)					
Permissible temperature of							
■ Medium		-20 ... +85 °C <sup>4)</sup>			-4 ... +185 °F <sup>4)</sup>		
■ Ambience		-20 ... +85 °C <sup>4)</sup>			-4 ... +185 °F <sup>4)</sup>		
■ Storage		-40 ... +100 °C			-40 ... +212 °F		
Compensated temp. range		0 ... +80 °C			32 ... +176 °F		
<sup>4)</sup> Higher temperature ranges on request.							
Temperature coefficients within compensated temp range							
■ Mean TC of zero	% of span	Typ. ≤ ± 0.2 / 10 K		max. ≤ ± 0.4 / 10 K			
■ Mean TC of range	% of span	Typ. ≤ ± 0.15 / 10 K		max. ≤ ± 0.25 / 10 K			
CE -conformity		89/336/EWG interference emission and immunity see EN 61 326 Interference emission limit class A and B					
Wiring protection		Protected against reverse polarity and short circuiting on the instrument side					
Mass	kg	Approx. 0.1					

{ } Items in curved brackets are optional extras for additional price.

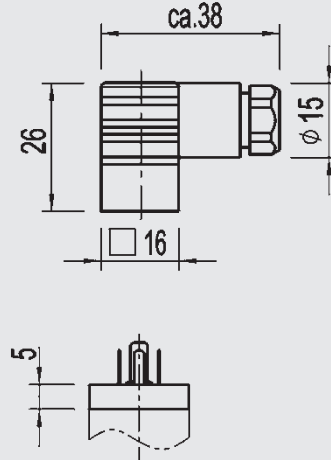
**Dimensions in mm**

Ingress Protection IP per IEC 60 529

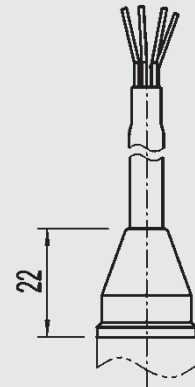
Circular connector \*)  
M 12x1, IP 65  
Code: M4



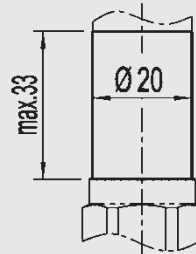
L-connector  
per DIN EN 175301-803,  
Form C, IP 65  
Code: I4



Flying leads, IP 67  
Code: DL

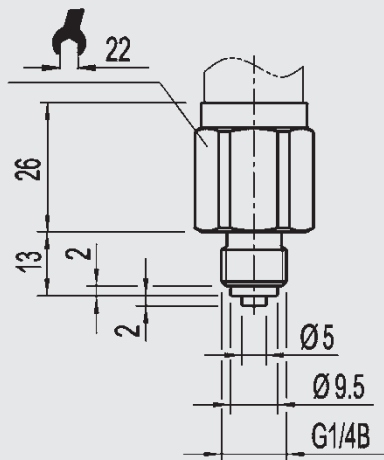


**Case**

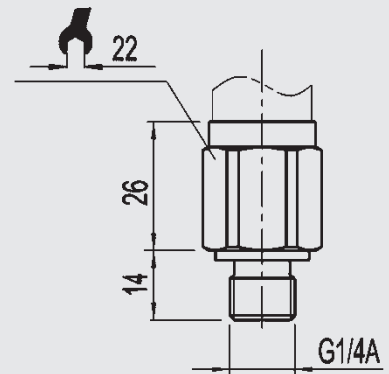


**Pressure connections**

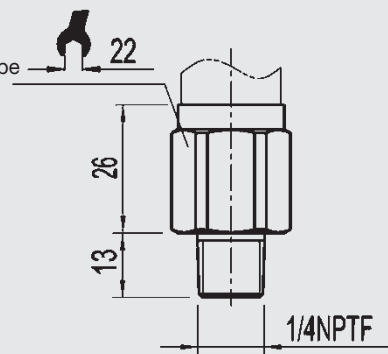
G1/4 per  
EN 837  
Code: GB



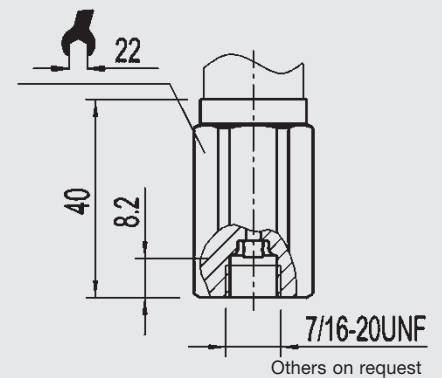
G1/4 per  
DIN 3852-E  
Code: HD



1/4NPT  
per „Nominal size for  
US standard tapered pipe  
thread NPT“  
Code: NB



7/16-20UNF  
(Schrader)  
Code: U3

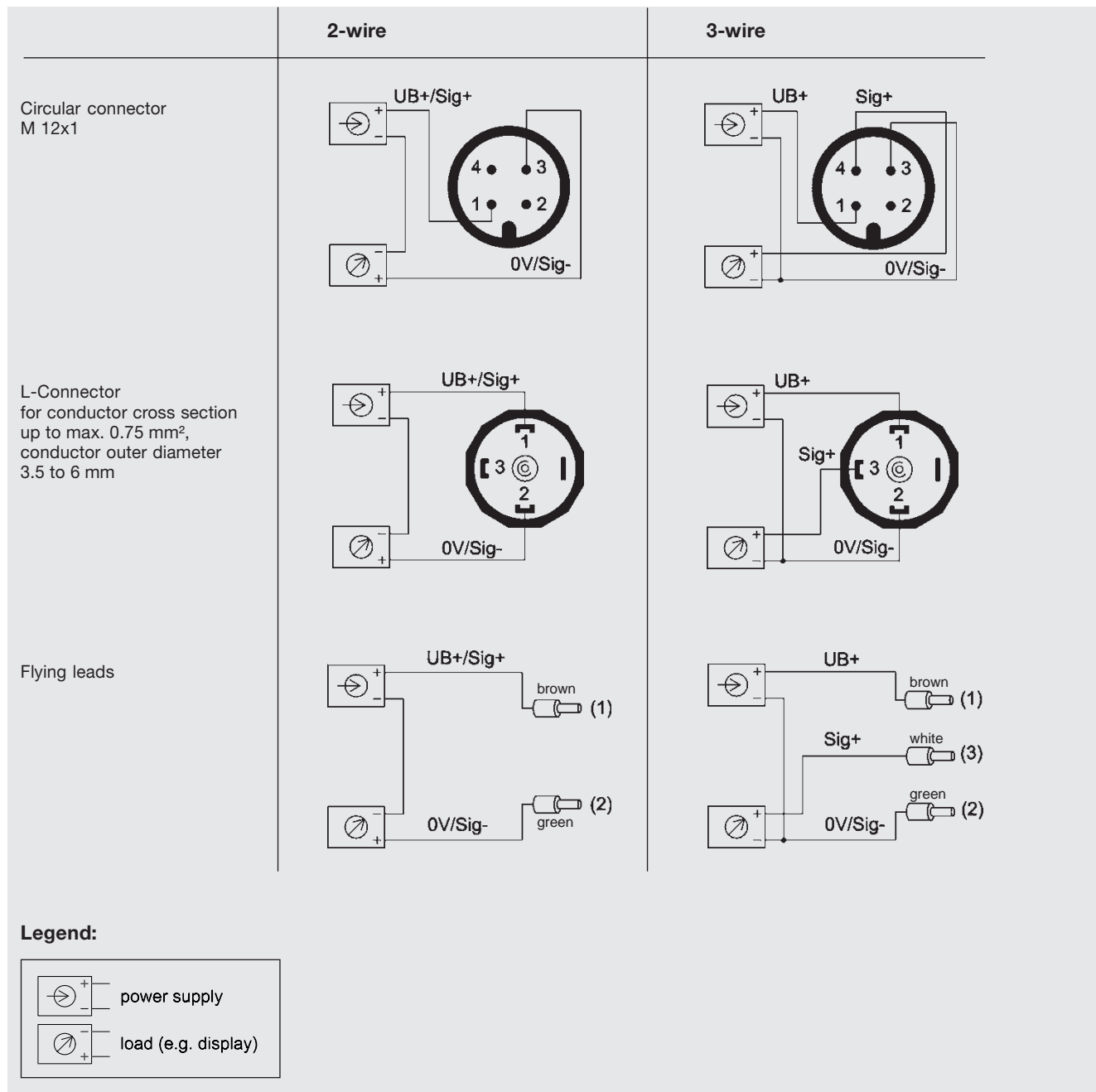


Others on request

**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](http://www.wika.de) -Service**

\*) Connector is not included in delivery.

**Wiring details**



Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.



**WIKAL Alexander Wiegand GmbH & Co. KG**  
 Alexander-Wiegand-Straße 30  
 63911 Klingenberg/Germany  
 Phone (+49) 93 72/132-0  
 Telefax (+49) 93 72/132-406  
 E-Mail support-tronic@wika.de  
 www.wika.de