OEM Pressure Transmitter with Ceramic Sensor
Model OC-1

Applications

- Water filtration systems
- Process monitoring and control
- Pump and compressor systems

Special Features

- Standard ranges from 0…30 PSI to 0…1500 PSI
- Economical, high performance design
- Environmental protection to NEMA 4 / IP 67
- Compact size

Left: OC-1 with M12 x 1 connector
Center: OC-1 with IP 67 cable assembly
Right: OC-1 with miniDIN connector

Description

OC-1 pressure transmitters incorporate the WIKA ceramic thick film sensor providing performance and economy for a wide range of OEM applications. Typical applications include water treatment systems, pneumatics, compressor controls, pump protection, refrigeration and air conditioning systems.

Dependable performance

The OC-1 features a corrosion free monolithic ceramic thick film sensor that is virtually corrosion free and provides excellent long-term stability, repeatability, and hysteresis specifications. The case is available in stainless steel or brass and provides up to NEMA 4 / IP 67 ingress protection when equipped with the optional cable connection.

Standard signal outputs include 4-20 mA, 0.1-10V, and 0.4 – 4.5V ratiometric allow the OC-1 to be integrated into many existing applications. Several signal outputs, process connections, and electrical connections are available.

The OC-1 achieves an accuracy of ≤ 0.50% full scale. The printed circuit board uses state-of-the-art surface mount technology. Modern production methods provide a low cost quality transmitter for many OEM applications requiring large quantities.

Specifications — Model OC-1

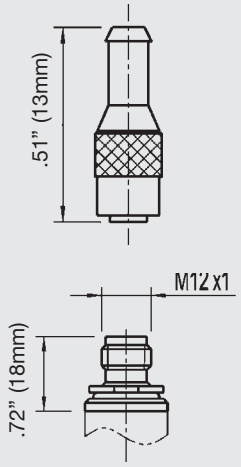
Pressure range	30PSI	60PSI	100PSI	160PSI	200PSI	300PSI	500PSI	1000PSI	1500PSI
Maximum pressure*	72PSI	145PSI	290PSI	580PSI	580PSI	580PSI	1450PSI	2900PSI	2900PSI
Burst pressure**	87PSI	174PSI	360PSI	725PSI	725PSI	725PSI	1740PSI	3625PSI	3625PSI

Materials				
■ Sealing ring		NBR		
		{EPDM}		
		{Others on request}		
■ Diaphragm		Ceramic Al_2O_3 96%		
■ Case		Brass 2.0401 (≥ 1000PSI only available in stainless steel)		
		{Stainless steel}		
Signal, supply, and load		Output signal	Power supply	Load
		4 ... 20 mA, 2-wire	8 ... 30 DC V	$R_A \leq (U_B - 8\ V) / 0.02\ A$ with
				R_A in Ohm and U_B in Volt
		0.1 ... 10 V, 3-wire	14 ... 30 DC V	R_A > 10 k
		0.5 ... 4.5 V, ratiometric	5 ± 0.25 DC V	R_A > 4.5 k
Accuracy [1]	% of span	≤ 1 (limit point calibration)		
	% of span	≤ 0.5 (BFSL)		
Repeatability	% of span	≤ 0.1		
1-year stability	% of span	≤ 0.3 (at reference conditions)		
Permissible temperature of				
■ Medium [2]	°C	-4 ... +185 °F	-20 ... +85	
■ Ambient [2]	°C	-4 ... +185 °F	-20 ... +85	
■ Storage	°C	-40 ... +212 °F	-40 ... +100	
Compensated temperature range	°C	32 ... +176 °F	0 ... +80	
Temperature coefficients within				
compensated temperature 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		
Wiring protection		Protected against reverse polarity, overvoltage and short circuiting		
Ingress protection per				
IEC 60529 / EN 60529		See Page 3		
Weight	lb	Approx. 0.2		

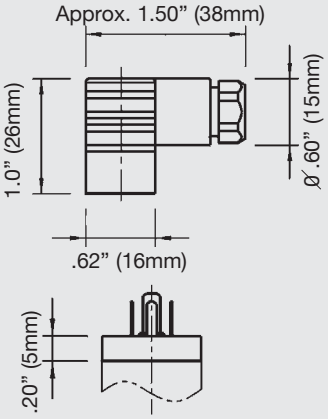
* The specifications of WIKA's ceramic thick film sensors will not be permanently affected by pressure loads up to the burst pressure.
** Exceeding the burst pressure may result in destruction of the transmitter and possible loss of media.
1) Accuracy includes linearity, hysteresis and repeatability. 30 PSI range with stainless steel case has 1.5% limit point / 0.75% BFSL accuracy.
Limit point calibration in vertical mounting position with pressure connection facing down
2) Higher temperature ranges available on request.
{ } Items in curved brackets are options available at additional cost.

Dimensions in inches (mm)

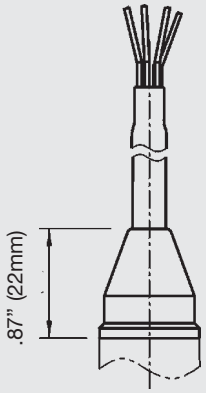
Circular connector *)
M 12x1, IP 65
Code: M4



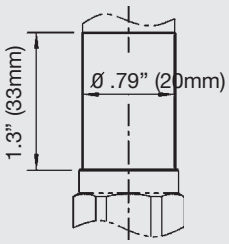
L-connector
per DIN EN 175301-803,
Form C, IP 65
Code: I4



Flying leads, IP 67
Code: DL

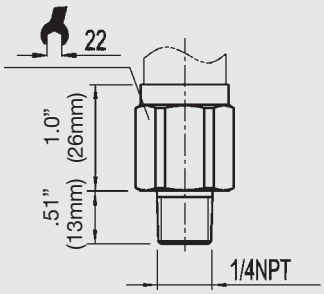


Case

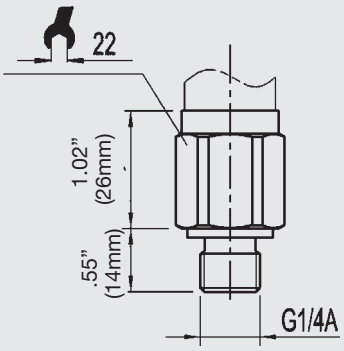


Pressure connections

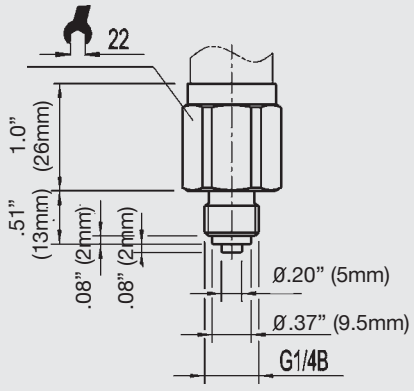
1/4NPT male
Code: NB



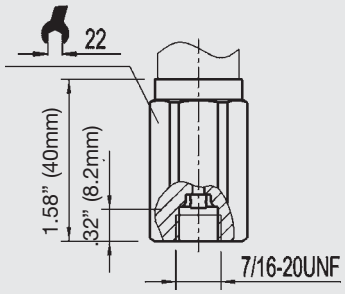
G1/4 per
DIN 3852-E
Code: HD



G1/4 per
EN 837
Code: GB

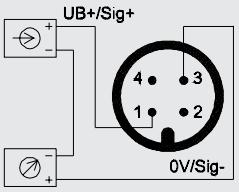
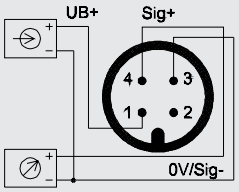
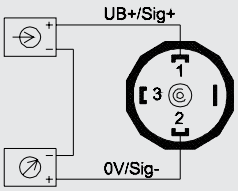
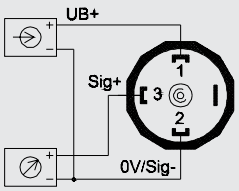
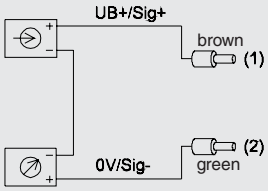
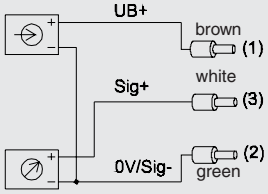


7/16-20UNF
(Schrader)
Code: U3

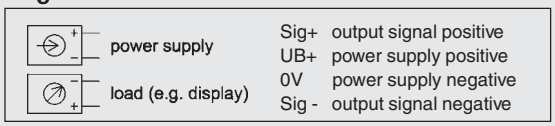


*) mating connector shown is not included

Wiring

	2-wire system	3-wire system
Circular connector M 12x1		
L-Connector		
Flying leads		

Legend:



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