

Pressure Transmitter for OEM-Applications Model ECO-1

WIKA Data Sheet PE 81.14

Applications

- Mechanical engineering
- Hydraulics
- General industrial applications

Special Features

- Pressure ranges from 0 ... 1 bar to 0 ... 1000 bar
- Current or voltage output signals
- Case and wetted parts of stainless steel
- Medium temperature -40 °C ... +100 °C
- Wiring with L-connector or flying leads



Fig. Pressure Transmitter ECO-1

Description

Wide range of applications

The pressure transmitter model ECO-TRONIC® has been designed for all fields of industrial pressure measurement. Typical applications are in mechanical engineering, plant construction and automation industry as well as in the refrigeration and air conditioning industry.

Reliable measurement technology

Pressure ranges from 0 ... 1 bar up to 0 ... 1000 bar cover the measuring ranges of the most applications. The sensors made by WIKA, with high accuracy, long-term stability and repeatability, have been well established in industrial pressure measurement for decades. Depending on the pressure range, the suitable sensor, either piezoresistive or metallic thin film, will be utilized.

Reliable signal acquisition

With various standard output signals like 4 ... 20 mA (2-wire), or 0 ... 10 V, 1 ... 5 V and 1 ... 6 V (3-wire), the transmitter can be easily integrated into different systems. RFI/EMI-characteristics according to EN 61 326 guarantee signal integrity even under difficult environmental conditions.

Interesting price/performance ratio

The excellent performance characteristics and the good price/performance ratio of the ECO-TRONIC make it the perfect choice for applications with medium and large volumes.

Specifications

Model ECO-1

Pressure ranges	bar	1	1.6	2.5	4	6	10	16	25
Over pressure safety	bar	5	10	10	17	35	35	80	50
Burst pressure	bar	6	12	12	20,5	42	42	96	80
Pressure ranges	bar	40	60	100	160	250	400	600	1000
Over pressure safety	bar	80	120	200	320	500	800	1200	1500
Burst pressure	bar	200	300	500	800	1250	1300	1800	3000
{Absolute pressure: 0 ... 1 bar abs to 0 ... 16 bar abs}									
Materials									
■ Wetted parts		Stainless steel							
■ Case		Stainless steel							
Internal transmission fluid		Synthetic oil only for pressure ranges up to 16 bar {Halocarbon oil for oxygen applications} *)							
Power supply U_B	DC V	10 < U_B ≤ 30 (14 ... 30 with output signal 0 ... 10 V, 1 ... 6 V)							
Signal output and Maximum load R_A		4 ... 20 mA, 2- wire R_A ≤ ($U_B - 10$ V) / 0.02 A with R_A in Ohm and U_B in Volt 0 ... 10 V, 3- wire R_A > 10 kOhm 1 ... 5 V, 3- wire R_A > 5 kOhm 1 ... 6 V, 3- wire R_A > 6 kOhm							
Response time (10 ... 90 %)	ms	≤ 5 (≤ 10 ms at medium temperature < -30 °C for pressure ranges up to 16 bar)							
Accuracy **)	% of span	≤ 1.0 (limit point calibration)							
	% of span	≤ 0.5 (BFSL)							
Reproducibility	% of span	≤ 0.1							
1-year stability	% of span	≤ 0.3 (at reference conditions)							
Permissible temperature of									
■ Medium		-40 ... +100 °C				-40 ... +212 °F			
■ Ambient		-30 ... + 80 °C				-22 ... +176 °F			
■ Storage		-30 ... +100 °C				-22 ... +212 °F			
Compensated temp range		0 ... + 80 °C				32 ... + 176 °F			
Temperature coefficients in compensated temp range									
■ Mean TC of zero	% of span	≤ 0.4 / 10 K							
■ Mean TC of range	% of span	≤ 0.3 / 10 K							
CE- conformity		89/336/EEG interference emission and immunity see EN 61 326 97/23/EG Pressure equipment directive							
Wiring protection		Protected against reverse polarity, overvoltage and short circuiting							
Ingress protection per		IEC 60 529 / EN 60 529, see page 3							
Weight	kg	Approx. 0.15							

*) Media temperature for oxygen version : -30 ... +60 °C (-22 ... 140 °F).

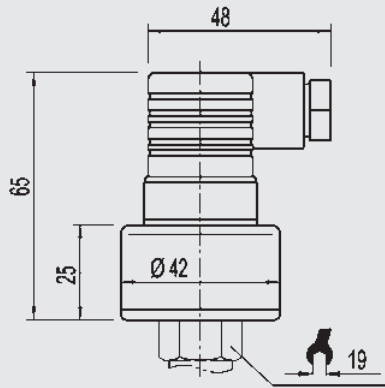
**) Including linearity, hysteresis and repeatability.

{ } Limit point Calibration in vertical mounting position with lower pressure connection.

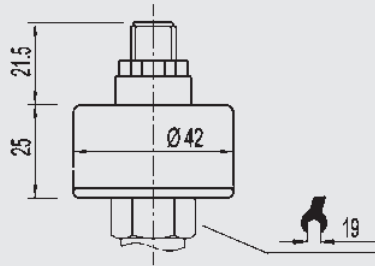
{ } Items in curved brackets are optional extras for additional price.

Dimensions in mm

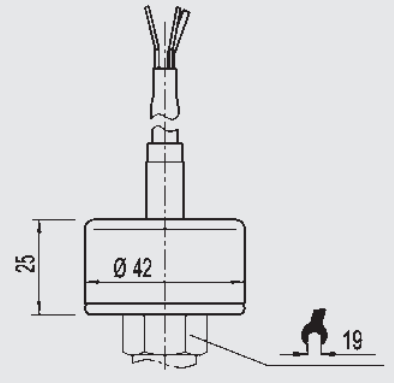
L-connector
DIN EN 175301-803,
IP 65
Order code: A4



Circular connector
M 12x1, 4-pin
IP65
Order code: M4

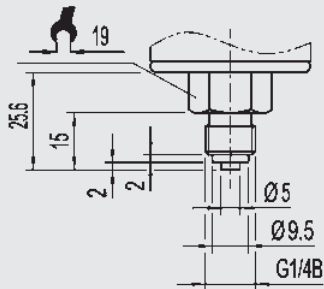


Flying leads
IP67
Order code: DL

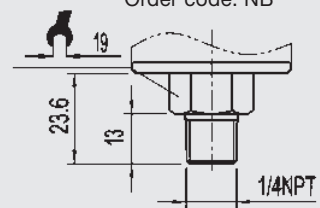


Pressure connections

G 1/4
EN 837
Order code: GB



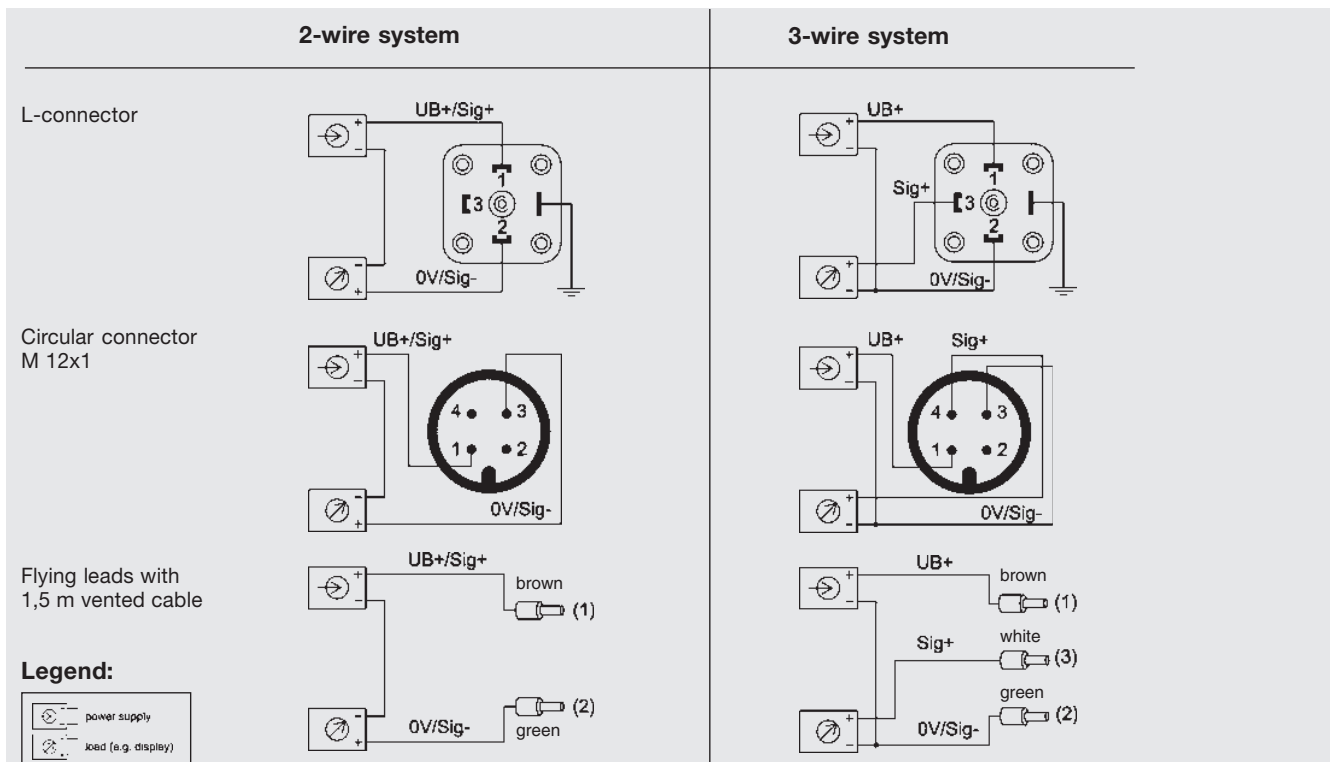
1/4 NPT
per „Nominal size for US
standard tapered pipe thread
NPT“
Order code: NB



Others on request

For tapped holes and welding sockets please see data sheet IN 00.14 or www.wika.de/download

Wiring details



Further pressure transmitter from our OEM production



Abb. Pressure transmitter ECO-1 for Shipbuilding Industrie and Off-Shore with international approvals see data sheet PE 81.18

Abb. Pressure transmitter MH-2 with thinfilm technology for mobile hydraulic applications see data sheet PE 81.37

Further informations

You can obtain further information (data sheets, instructions, etc.) via Internet address www.wika.de



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.



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