

# Compact Pressure Transmitters

for OEM-Applications

## TRONIC LINE

• Model C-10

- Pressure ranges from 0 ... 250 mbar to 0 ... 1000 bar
- Current or voltage signal output
- Body and wetted parts of stainless steel
- Medium temperature -30 °C ... +100 °C
- Ingress protection IP 65 or IP 67
- Wiring with DIN plug or flying lead with antikink protection

### General features

The compact transmitter line of WIKAI offers considerable economical advantages, in particular to OEM customers. This pressure transmitter line is especially designed for applications where only limited space is available and which are subject to severe shocks, vibrations and electromagnetic interference (EMI). The interesting price/performance ratio makes out a good case, particularly where quantities of medium or large size are required.

Sensor principles tuned with each other ensure the optimum sensor system for the respective measuring applications.

Measuring tasks in low pressure ranges are realised by means of a fully welded, piezoresistive measuring cell from our own production, while a thinfilm (strain gauge) sensor system which is also supplied by our own production is used for dynamic and static measurements in high pressure ranges.

A wide range of standardized and customer-specific output signals enables a simple connection into process measuring chains. Available are, among other things: current outputs 4 ... 20 mA (2-wire), 0 ... 20 mA (3-wire) as well as voltage outputs 0 ... 10 V and 0 ... 5 V.

The accuracy comprising zero offset, linearity and hysteresis amounts to 1 % (limit point setting). Combined with an excellent reproduceability and long-term stability, a reliable measured value registration is ensured even over prolonged periods of time.

The standard electric connection is available as mini L-plug (IP 65) or flying lead with integrated antikink protection (IP 67).

All wetted parts and the case are exclusively made of stainless steel alloys 1.4571 and 1.4542. Special welding procedures guarantee an excellent long-term sealing completely eliminating the need for additional sealing materials.

A wide range of standardized and customer-specific pressure connections ensure a simple integration into the applications.



### Supplementary data sheets:

- Pressure Transmitter for general applications (see data sheet PE 81.01)
- Pressure Transmitter ECO-TRONIC (see data sheet PE 81.14)
- Pressure Transmitters for mobile hydraulics (see data sheet PE 81.21)

**Model S-1X**

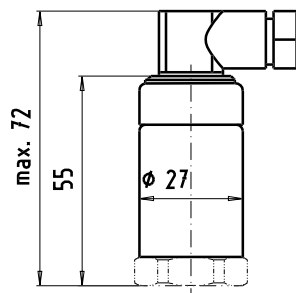
**Model ECO-1**

**Model MH-1**

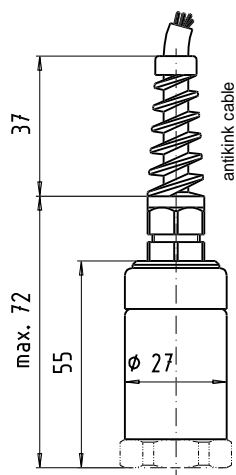
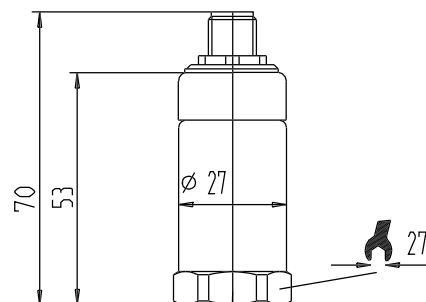
Specifications		Model C-10																			
Pressure ranges	bar	0.25	0.4	0.6	1	1.6	2.5	4	6	10	16	25	40	60	100	160	250	400	600	1000	
Overpressure safety	bar	2	2	4	5	10	10	17	35	35	80	50	80	120	200	320	500	800	1200	1500	
Burst pressure of sensor	bar	2	2	4	5	10	10	17	35	35	80	250	400	550	800	1000	1200	1700	2400	3000	
		{absolut pressure: 0 ... 0.25 bar abs to 0 ... 16 bar abs}																			
		{special pressure range 800 ... 1200 mbar abs}																			
Pressure connection		G ¼ B (1/4 NPT)										{other pressure connections on request}									
Material																					
• wetted parts																					
≤ 16 bar		CrNi-Stahl 1.4571																			
≥ 25 bar		CrNi-Stahl 1.4571 and 1.4542																			
• Case		CrNi-Stahl 1.4571																			
internal transmitting fluid		Synthetic oil, only for pressure ranges up to 16 bar.																			
		{halocarbon oil for oxygen applications <sup>1)</sup> }																			
Power supply U <sub>R</sub>	DC V	10 < U <sub>R</sub> ≤ 30										(14 ... 30 with signal output 0 ... 10 V)									
Signal output and		4 ... 20 mA, 2-wire system										R <sub>A</sub> ≤ (U <sub>B</sub> – 10 V) / 0.02 A with R <sub>A</sub> in Ohm and U <sub>B</sub> in Volt									
maximum load R <sub>A</sub>		{0 ... 20 mA, 3-wire system}										R <sub>A</sub> ≤ (U <sub>R</sub> – 3 V) / 0.02 A with R <sub>A</sub> in Ohm and U <sub>R</sub> in Volt									
		{0 ... 5 V, 3-wire system}										R <sub>A</sub> > 5 kOhm									
		{0 ... 10 V, 3-wire system}										R <sub>A</sub> > 10 kOhm {ohter signal outputs on request}									
Upper cutoff frequency	Hz	150																			
Response time (10 ... 90 %)	ms	≤ 1 (≤ 10 ms at medium temperatures below < -30 °C for pressure ranges up to 16 bar)																			
Accuracy with	% of span	≤ 0.5 (BFSL)																			
hysteresis included	% of span	≤ 1.0 (limit point calibration)																			
Repeatability	% of span	≤ 0.05																			
1-year stability	% of span	≤ 0.2 (under reference conditions)																			
Permissible temperature of																					
• medium	°C	-30 ... +100 {-40 ... +125}										-22 ... +212 °F {-40 ... +257 °F}									
• ambient	°C	-30 ... +85										-22 ... +185 °F									
• storage	°C	-40 ... +100										-40 ... +212 °F									
Compensated temp. range																					
Temperature coefficient in																					
compensated temp. range																					
• mean TC of zero	% of span/10K	≤ 0.3																			
• mean TC of zero	% of span/10K	≤ 0.2																			
CE -conformity		Interference emission and immunity per EN 61 326; declaration of conf. on request																			
Electrical connection		4-pin mini L-plug, G-series																			
		{Flying leads antikink cable}																			
		{4-pin locking plug, M 12 x 1}																			
		{others on request}																			
Wiring protection		protected against polarity crossing, overvoltage and short circuiting																			
Ingress protection																					
per EN 60 529 / IEC 529		IP 65 {IP 67}																			
Weight	kg	approx. 0.1																			
Dimensions	mm	see drawings																			
Items in curved brackets {} are optional for additional price.																					

- 1) The oxygen version must not be operated under medium temperatures higher than 60 °C (140 °F)  
The oxygen version cannot be manufactured for negative pressure ranges and for absolute pressure ranges < 1 bar abs.

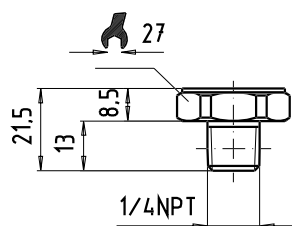
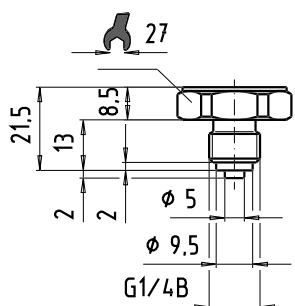
## Dimensions in mm

4-pin mini L-plug  
G-series

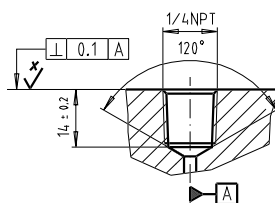
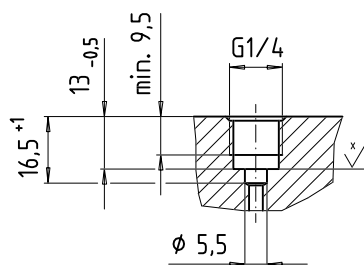
Flying leads

Locking plug, 4 pin,  
M12 x 1

## Pressure connections:



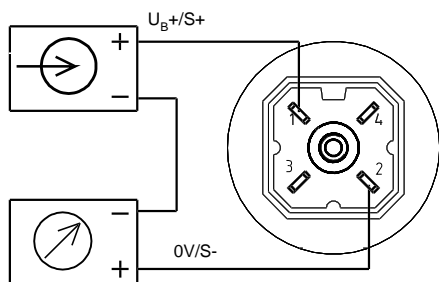
## Weld-on adaptors / sockets for pressure connections



## Electrical connection

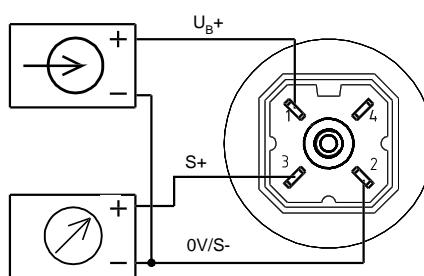
### 2-wire system

#### 4-pin mini L-plug, G-series

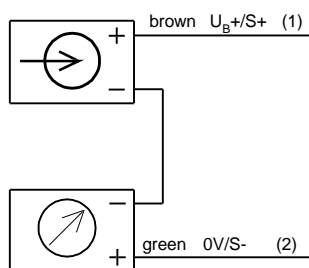


### 3-wire system

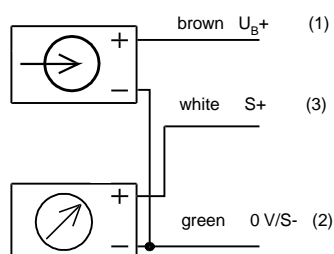
#### 4-pin mini L-plug, G-series



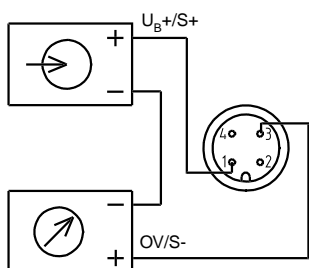
#### flying leads



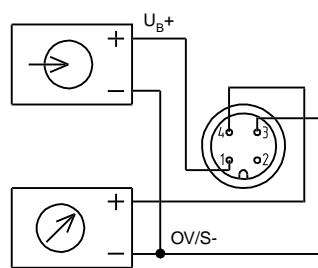
#### flying leads



#### locking plug, 4 pin, M12 x 1



#### locking plug, 4 pin, M12 x 1



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.



INGENIEROS ASOCIADOS DE CONTROL S.L.  
Telf.: 913831390  
comercial@iac-sl.es