

Pressure transmitter for low pressure applications

Model SL-1

Applications

- Filter technology
- Blow-moulding machines for glass and plastics industries
- Heating, ventilation and air-conditioning

Special features

- Measuring ranges from 0 ... 25 mbar to 0 ... 60 mbar
- Various industrial standard signals
- Plug connection or cable outlet
- Ingress protection up to IP67



Pressure transmitter model SL-1

Description

The model SL-1 pressure transmitter has been designed for measurement of the lowest pressures in dry, gaseous and non-aggressive media.

It is characterised by its high accuracy and its very robust and compact design.

Through its versatile ability to combine different industrial standard signals and electrical connections it offers a wide range of instrument variants.

Design

The robust case is made from stainless steel and, dependent on the electrical connection, offers ingress protection of up to IP67.

The model SL-1 can be powered with an unregulated direct voltage of DC 10 (14) ... 30 V and delivers any of the commonly used output signals.

Specifications			
Measuring range in mbar	0 ... 25	0 ... 40	0 ... 60
Overpressure safety in mbar	500	500	500
Burst pressure in mbar	1,000	1,000	1,000
Type of pressure	Relative pressure		
Material			
Wetted parts	Stainless steel, silicium, aluminium, gold, silicone		
Case	Stainless steel		
Power supply U ₊	DC 10 ... 30 V (DC 14 ... 30 V with output 0 ... 10 V)		
Output signal and permissible max. load R _A in Ω	4 ... 20 mA, 2-wire {0 ... 5 V, 3-wire {0 ... 10 V, 3-wire	R _A ≤ (U ₊ - 10 V) / 0.02 A R _A > 5k R _A > 10k}	
Adjustability of zero point/span	±5 % through potentiometer within the instrument		
Settling time (10 ... 90 %)	≤ 1 ms		
Insulation voltage	DC 500 V		
Accuracy ¹⁾	≤ 0.5 % of span		
Non-linearity	≤ 0.2 % of span (BFSL) per IEC 61298-2		
Non-repeatability	≤ 0.1 % of span		
Long-term stability	≤ 0.3 % of span / year (at reference conditions)		
Permissible temperature ranges			
Medium	-30 ... +80 °C		
Ambient	-20 ... +80 °C		
Storage	-40 ... +80 °C		
Rated temperature range	0 ... +80 °C		
Temperature coefficients in rated temperature range			
Mean TC of zero	25 mbar: 0.5 % of span / 10 K	40 mbar: 0.4 % of span / 10 K	60 mbar: 0.3 % of span / 10 K
Mean TC of span	≤ 0.3 % of span / 10 K		
CE conformity	<ul style="list-style-type: none"> ■ EMC directive ²⁾ EN 61326 emission (group 1, class B) and immunity (industrial application) ■ RoHS directive 		
Short-circuit resistance	S ₊ vs. U ₋		
Reverse polarity protection	U ₊ vs. U ₋		
Weight	Approx. 0.3 kg		

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

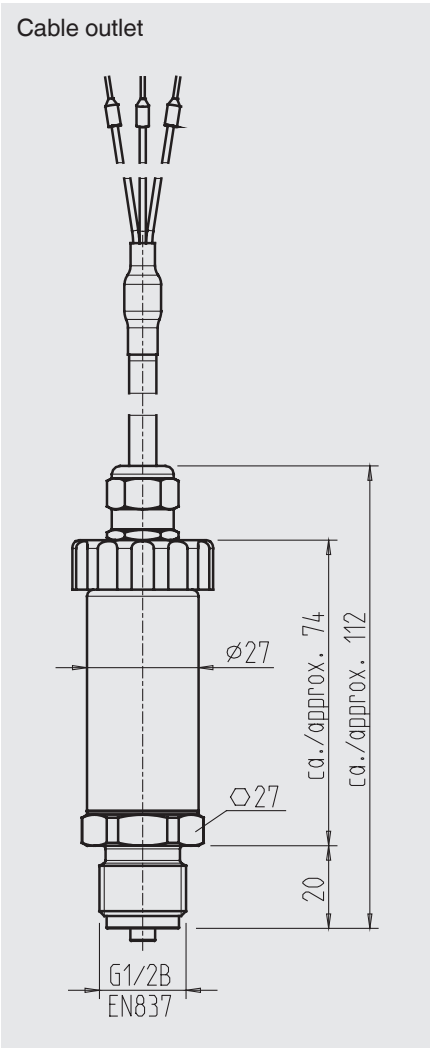
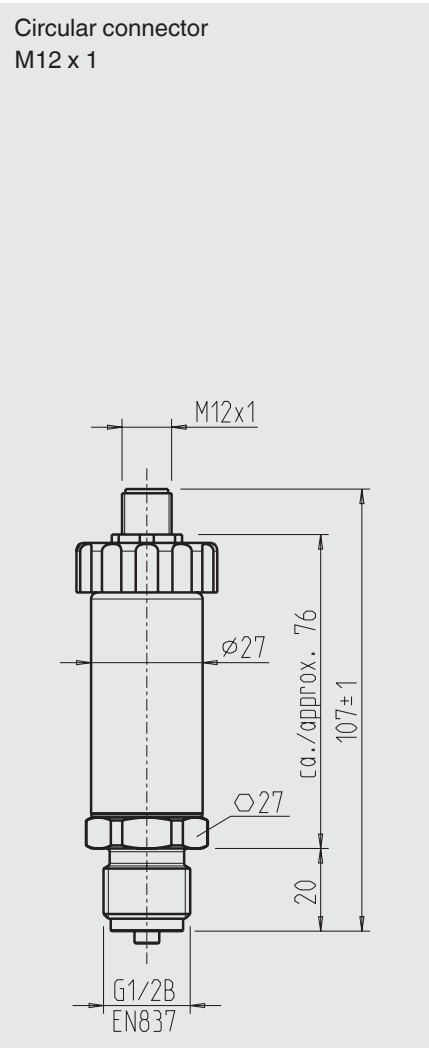
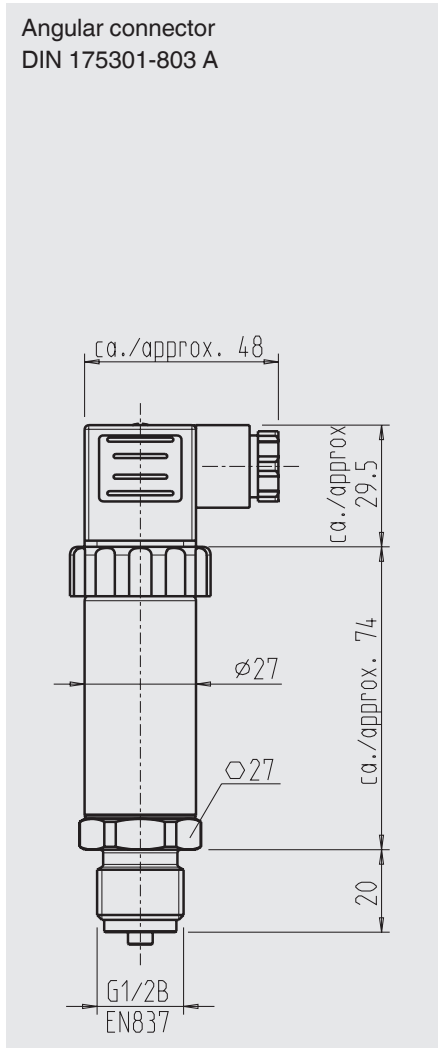
1) Including non-linearity, hysteresis, zero-point and full scale value deviations (corresponds to measured error per IEC 61298-2).

Calibrated in vertical mounting position with process connection facing downwards.

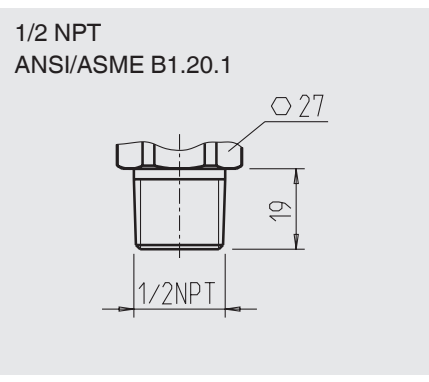
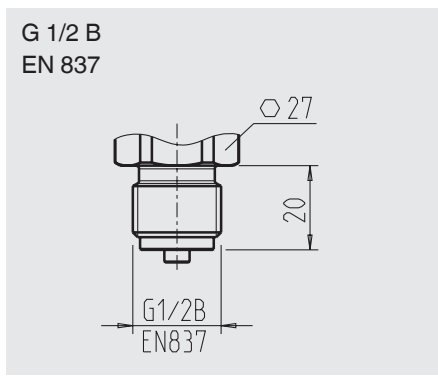
2) The existence of strong electromagnetic fields in a frequency range of < 2.7 GHz can result in increased measured errors up to 1 % of span. Do not install the instruments in the vicinity of strong electromagnetic sources of interference (e.g. transmitting device, radio equipment), or use sheath current filters where applicable.

Dimensions in mm



Electrical connections



Process connections



For information on tapped holes and welding sockets, see Technical Information IN 00.14 at www.wika.com.

Electrical connections									
	Angular connector DIN 175301-803 A			Circular connector M12 x 1, 4-pin			Cable outlet with 1.5 m length		
									
2-wire	U ₊ = 1	U ₋ = 2		U ₊ = 1	U ₋ = 3		U ₊ = brown	U ₋ = green	
3-wire	U ₊ = 1	U ₋ = 2	S ₊ = 3	U ₊ = 1	U ₋ = 3	S ₊ = 4	U ₊ = brown	U ₋ = green	S ₊ = white
Cable shield	-			-			Grey		
Wire cross-section	Up to max. 1.5 mm ²			-			0.5 mm ² (AWG 20)		
Cable diameter	6 ... 8 mm			-			6.8 mm		
Ingress protection per IEC 60529	IP65			IP67			IP67		
	The stated ingress protection only applies when plugged in using mating connectors that have the appropriate ingress protection.								

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