

# Pressure transmitter for low pressure applications Model SL-1

WIKA data sheet PE 81.36

## 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 IP 67



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 IP 67.

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		Model SL-1		
Measuring range	mbar	25	40	60
Overpressure safety	mbar	500	500	500
Burst pressure	mbar	1000	1000	1000
Type of pressure		Relative pressure		
Material				
■ Wetted parts		Stainless steel, silicium, aluminium, gold, silicone		
■ Case		Stainless steel		
Power supply U <sub>+</sub>	DC	10 ... 30 V (14 ... 30 V with output 0 ... 10 V)		
Output signal and permissible max. load R <sub>A</sub>	R <sub>A</sub> in Ω	4 ... 20 mA, 2-wire	R <sub>A</sub> ≤ (U <sub>+</sub> - 10 V) / 0.02 A	
		0 ... 20 mA, 3-wire	R <sub>A</sub> ≤ (U <sub>+</sub> - 3 V) / 0.02 A	
		0 ... 5 V, 3-wire	R <sub>A</sub> > 5k	
		0 ... 10 V, 3-wire	R <sub>A</sub> > 10k	
		{Other output signals on request}		
Adjustability of zero point/span	%	± 5 through potentiometer within the instrument		
Settling time (10 ... 90 %)	ms	≤ 1		
Insulation voltage	DC	500 V <sup>1)</sup>		
Accuracy <sup>2)</sup>	% of span	≤ 0.5		
Non-linearity	% of span	≤ 0.2 (BFSL) per IEC 61298-2		
Non-repeatability	% of span	≤ 0.1		
Long-term stability	% of span	≤ 0.3 / year (at reference conditions)		
Permissible temperature ranges				
■ Medium	°C	-30 ... +80		
■ Ambient	°C	-20 ... +80		
■ Storage	°C	-40 ... +80		
Rated temperature range	°C	0 ... +80		
Temperature coefficients in rated temperature range				
■ Mean TC of zero	% of span	25 mbar: 0.5 / 10 K	40 mbar: 0.4 / 10 K	60 mbar: 0.3 / 10 K
■ Mean TC of span	% of span	≤ 0.3 / 10 K		
CE conformity				
■ EMC directive		2004/108/EC, EN 61326 emission (group 1, class B) and interference immunity (industrial application)		
Short-circuit resistance		S <sub>+</sub> vs. U <sub>-</sub>		
Reverse polarity protection		U <sub>+</sub> vs. U <sub>-</sub>		
Weight	kg	approx. 0.3		

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

1) NEC class 02 power supply (low voltage and low current max. 100 VA even under fault conditions).

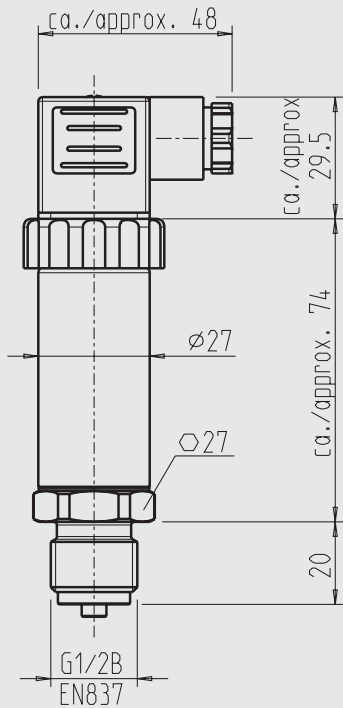
2) Including non-linearity, hysteresis, zero-point and full scale value deviations (corresponds to measured error per IEC 61298-2).

Calibrated in vertical mounting position with process connection facing downwards.

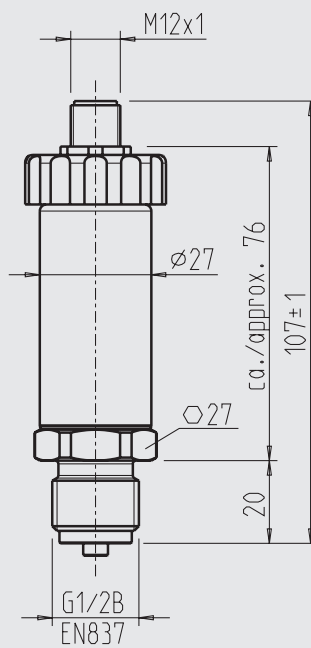
## Dimensions in mm

### Electrical connections

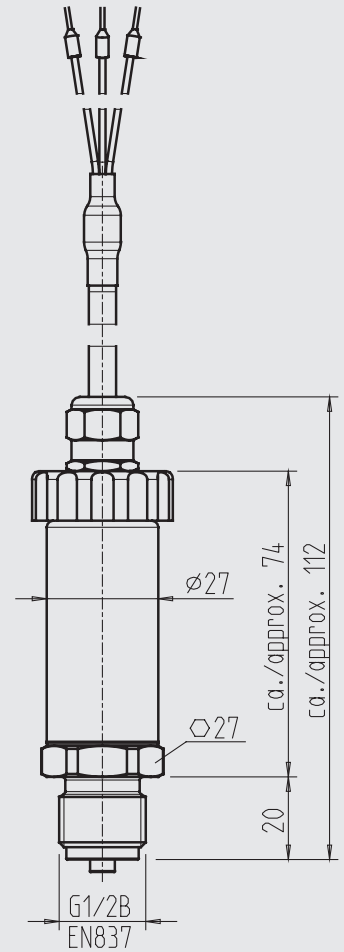
Angular connector  
DIN 175301-803 A



Circular connector  
M12 x 1

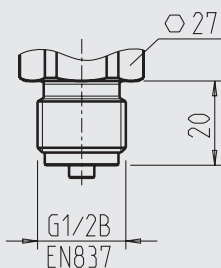


Cable outlet

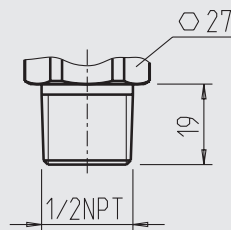


### Process connections

G 1/2 B  
EN 837





1/2 NPT  
ANSI/ASME B1.20.1



For information on tapped holes and welding sockets, see Technical Information IN 00.14 at [www.wika.com](http://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 <sub>+</sub> = 1	U <sub>-</sub> = 2	U <sub>+</sub> = 1	U <sub>-</sub> = 3		U <sub>+</sub> = brown	U <sub>-</sub> = green		
3-wire	U <sub>+</sub> = 1	U <sub>-</sub> = 2	S <sub>+</sub> = 3	U <sub>+</sub> = 1	U <sub>-</sub> = 3	S <sub>+</sub> = 4	U <sub>+</sub> = brown	U <sub>-</sub> = green	S <sub>+</sub> = white
Cable shield	-		-			grey			
Wire cross-section	up to max. 1.5 mm <sup>2</sup>		-			0.5 mm <sup>2</sup> (AWG 20)			
Cable diameter	6 ... 8 mm		-			6.8 mm			
Ingress protection per IEC 60529	IP 65		IP 67			IP 67			
	The stated ingress protection only applies when plugged in using mating connectors that have the appropriate ingress protection.								

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