

KL 1



Terminal Box

Aluminium

Product characteristics

- ▶ aluminium die cast case
- ▶ for connecting 2-wire submersible transmitters
- ▶ integrated pressure balance item
- ▶ 2 signal lines

Optional versions

- ▶ overvoltage protection with nominal discharge current of 10 kA
- ▶ Pt 100 temperature sensor for submersible pressure transmitters with built in Pt 100 sensor

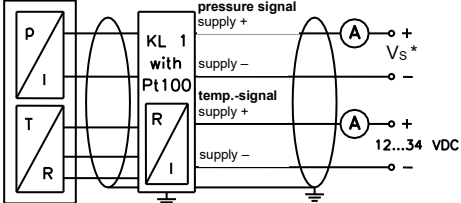
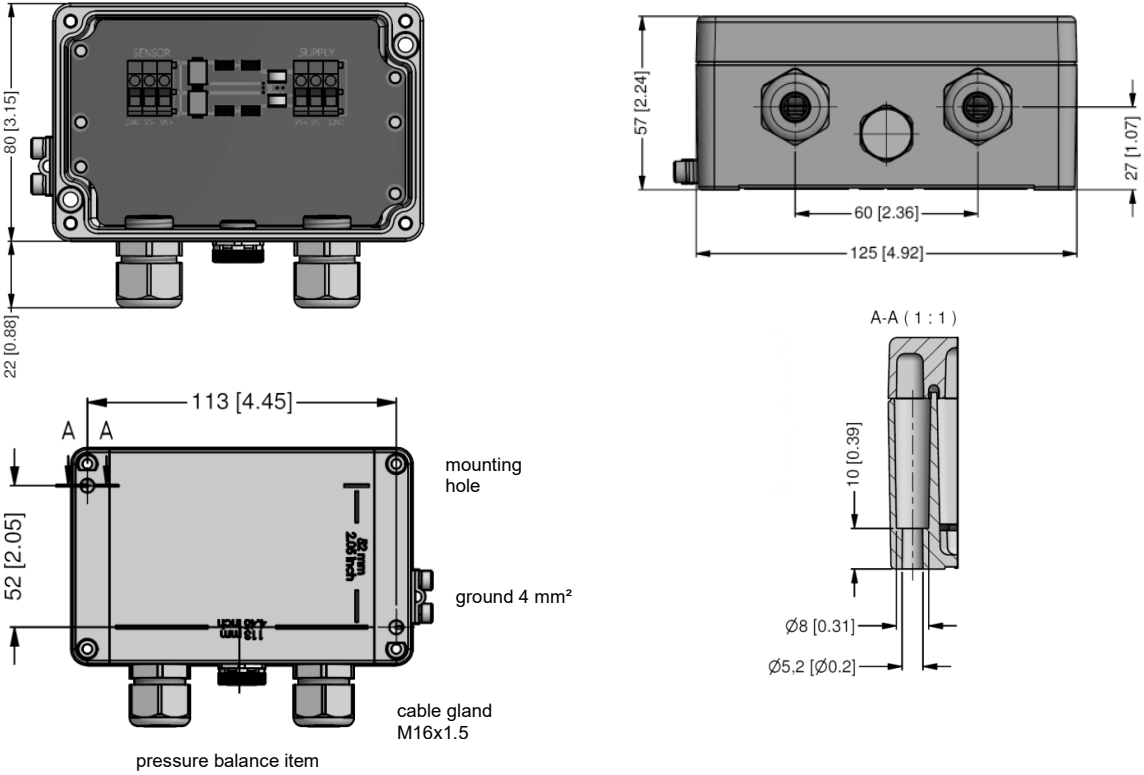
The terminal box KL 1 is intended for the professional electrical connection of 2-wire transmitters.

It offers integrated atmospheric pressure compensation. Optionally with overvoltage protection and Pt 100 temperature sensor for BD|SENSORS devices.

The terminal box KL 1 is equipped with a pressure balance item for equalization of atmospheric reference, therefore a cable without ventilation tube can be used on the supply side.

Vertical terminal clamps enable easy connection of cables inside. The terminal box has to be mounted with two fastening screws.



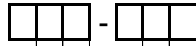
General specifications	
Number of signal lines	2-wire (4 ... 20 mA)
Housing	aluminium die cast case, grey powder-coating
Ingress protection	IP 66
Cable entries	cable gland M16x1.5 Polyamide, seals NBR, IP 68, diameter range: standard 5 ... 10 mm others on request
Atmospheric pressure compensation	pressure balance item with PTFE filter
Terminal clamps	vertical clamps for stranded and solid wires up to 2.5 mm ²
Weight	approx. 550 g
Optional overvoltage protection	
Series resistance	10 Ω for each wire
Nominal discharge current	10 kA (8/20 μs)
Max. rated current	30 mA
Optional Pt 100 temperature sensor ¹	
Temperature range	standard: 0 ... 70 °C option: T _{min} ... T _{max} can be in range from -40 °C up to 400 °C
Connection temperature sensor	3-wire
Output signal / Supply	2-wire: 4 ... 20 mA / V _S = 12 ... 34 V _{DC}
Accuracy	< 0.15 %
Linearity	< 0.1 %
Thermal effects	< 0.01 % / K
¹ only necessary if the transmitter is equipped with a Pt 100 temperature sensor	
Wiring diagram	
 <p>The diagram shows a terminal box labeled 'KL 1 with Pt 100'. It has two main sections: 'pressure signal' and 'temp.-signal'. The pressure signal section has 'supply +' and 'supply -' terminals. The temp.-signal section has 'supply +' and 'supply -' terminals. The pressure signal is connected to a pressure transducer (P, I) and the temp.-signal to a temperature transducer (T, R). The supply terminals are connected to a power source (V_S*) and the signal terminals to an ammeter (A). The ground wires of all components are connected to a common ground.</p> <p>The ground wires of all components have to be connected!</p> <p>* The supply V_S has to be chosen according to needs of the used transmitter.</p>	
Dimensions (in mm)	
 <p>The dimensions diagram shows the following measurements:</p> <ul style="list-style-type: none"> Front view: height 80 [3.15], width 113 [4.45], mounting hole diameter 52 [2.05], cable gland diameter 22 [0.88]. Top view: width 125 [4.92], height 57 [2.24], distance between glands 60 [2.36], distance from edge to gland 27 [1.07]. Side view (A-A 1:1): height 10 [0.39], diameter of gland 8 [0.31], diameter of terminal 5.2 [2.02]. <p>Labels in the diagram include: 'SENSOR', 'Supply', 'mounting hole', 'ground 4 mm²', 'cable gland M16x1.5', and 'pressure balance item'.</p>	

This data sheet contains product specification. properties are not guaranteed. Subject to change without notice.

Ordering code KL 1 - ZB.601

23.08.2024

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Version							
Standard	1	0	0				
Special version							
Standard				0	0	0	

0,- ... without additional charge

On request ... in accordance with the producer

Surcharges for calibration are not subject to any discounts. Subject to change.

This document contains the specification for ordering the product;

detailed technical parameters of the product and its possible variants are given in

BD SENSORS reserves the right to change sensor specifications without further notice.



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The company BD SENSORS s.r.o. is certified by Bureau Veritas Czech according to the standard ISO 9001.

