

Differential Pressure Transmitters Model 890.09.2190

WIKA Data Sheet PE 81.78

Applications

- Suitable for all gaseous and liquid media that will not obstruct the pressure system
- Differential pressure measurements between flow and return in heating systems
- Technical building equipment, filter plants, drinking and service water treatment
- Monitoring and control of pumps in pressure boosting and fire extinguishing plants

Special Features

- Compact size
- 2.5-fold overpressure safety
- Very good price / performance ratio
- Robust design

Description

The differential pressure transmitter has a ceramic differential pressure sensor with thick film technology, which works according to the principle of a Wheatstone bridge. The differential pressure deflects the ceramic diaphragm, thereby changing the strain gauge signal, which is amplified to a standard current output signal by the integrated electronics.

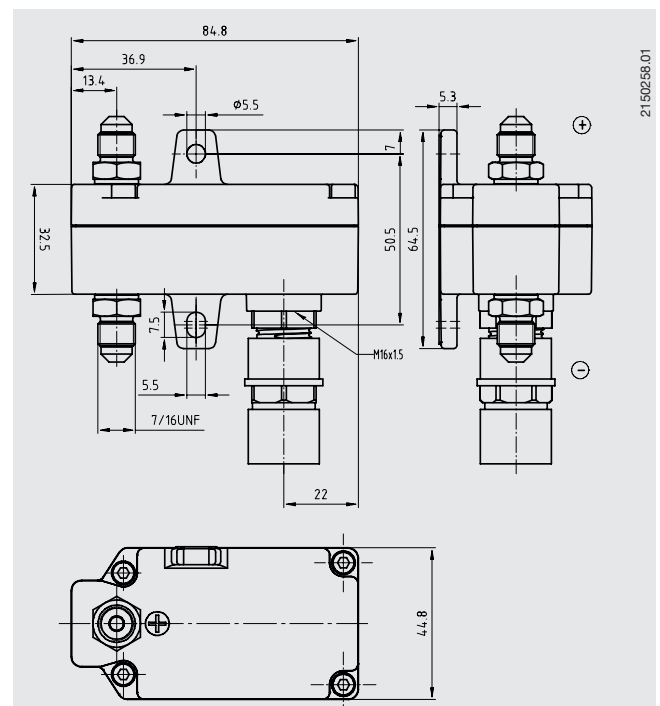
The sensor is mounted between the two case halves and sealed by o-rings. The sensor is electrically connected by means of a 3-wire cable which is led to the room for service connections through an insulating plastic tube.

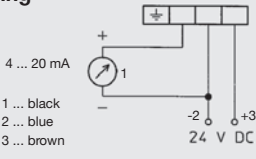
The differential pressure transmitter has 2 lugs for mounting.



Differential pressure transmitter Model 890.09.2190 with optional plastic hose

Dimensions in mm

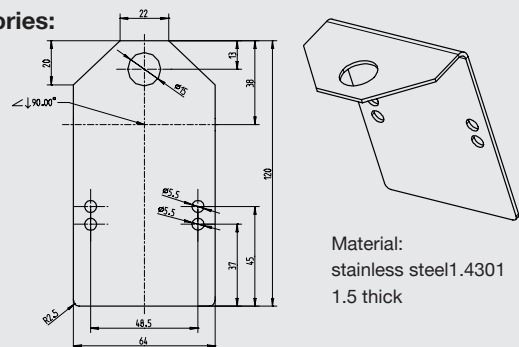


Specifications		Model 890.09.2190
Differential pressure range	bar	0 ... 1, 0 ... 2, 0 ... 4, 0 ... 6 and 0 ... 10
Working pressure (stat.) max.	bar	21
Overload value		
either side max.	bar	2.5 x full scale value, 21 bar maximum
Pressure connections	exposed to medium	2 x 7/16 UNF male, Cu alloy
Accessories	exposed to medium	2 capillary extensions, Cu alloy, Ø 3 x 0.75, Length 750 mm, winding diameter 66 mm, with 7/16 UNF union nuts
	exposed to medium	2 process gauge adapters R 3/8 x 7/16 UNF, Cu alloy
Pressure media chamber	exposed to medium	Zinc diecasting, black painted
Sensor element	exposed to medium	Ceramics Al ₂ O ₃
Sealings	exposed to medium	FPM/FKM
Power supply U_B	DC V	$18 < U_B \leq 30$ (24 V nominal voltage)
Output signal		4 ... 20 mA, 3-wire system
permissible max. load R_A		$R_A \leq 500$ Ohm
Current consumption	mA	max. 32 (typical)
at current limitation	mA	max. 36 (at over pressure)
Accuracy		
linearity	% of span	± 1
hysteresis	% of span	± 1
Temperature coefficient	% of span / 10 K	0.2
Zero point offset	mA	± 0.1
Ambient temperature	°C	-10 ... + 50
Medium temperature	°C	-10 ... + 80
Storage temperature	°C	-10 ... + 50
Wiring		Connection cable (0.34 mm ²) with 2.5 m length, square-cut at the end Optional: <ul style="list-style-type: none"> ■ other lengths ■ cable end with cable sleeves ■ cable with plastic hose and turnable cable gland at cable end
		
Wiring protection		short-circuit-proof, after eliminating the fault the operability is recovered
Ingress protection		IP 55 per EN 60 529 / IEC 529
Weight	kg	Approx. 0.3

Accessories:
Capillary
extension



Accessories:
Fixing
bracket



Ordering information

Model / Measuring range / Cable length / Accessories

Modifications may take place and materials specified may be replaced by others without prior notice.
Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.



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