

OEM relative pressure transmitter type 505

Pressure range
0 ... 4 – 16 bar



Type 505 pressure transmitters are particularly suitable for measuring water pressure rates in heating and industrial circular flow.

Due to partially automated manufacturing we are able to handle customer orders in high quantities.

- Best price / performance ratio through:
 - electronic integrated in measuring element
 - optimised mounting concept
 - automatic production
- Ideal for use as a control element, owing to small hysteresis
- The measuring element includes the well proven ceramic technology of Huba Control AG.

Technical overview

Pressure range

Relative 0 ... 4 – 16 bar

Operating conditions

Medium		Liquids and not aggressive gases
Temperature	Medium	+2 ... +90 °C
	Ambient	+2 ... +85 °C
	Storage	-30 ... +85 °C
Tolerable overload	≤ 4 bar	8 bar
	> 4 bar	20 bar
Rupture pressure	≤ 4 bar	12 bar
	> 4 bar	25 bar

Materials

Case		Plastic thermoplast
Materialien in contact with the medium	Pressure connection	Fibre reinforced plastic
	Sensor	Ceramic Al ₂ O ₃ (96%)
	Sealing material	EPDM (Ethylene propylene)

Electrical overview

Output	Power supply	Load	Current consumption ¹⁾
0.5 ... 3.5 V	8.5 ... 30 VDC	> 10 kOhm / < 100 nF	< 7 mA
Ratiom. 10 ... 70%	5 VDC ±5%	> 10 kOhm / < 100 nF	< 4 mA
Ratiom. 10 ... 50%	5 VDC ±5%	> 10 kOhm / < 100 nF	< 4 mA
Polarity reversal protection	Short circuit proof and protected against polarity reversal. Each connection is protected against crossover up to max. supply voltage.		
Electromagnetic compatibility	The product is designed exclusively for installation in equipment. The customer is responsible for CE conformity.		

Dynamic response

Response time	< 5 ms
Load cycle	< 50 Hz

Protection standard

IP 00

Pressure connection

Connection plug fitting	Standard
	Form 2 without orifice
Outside thread	Form 3
	Form 4 without orifice
	G ¼
	G ⅜
	G ½
	G ⅝
Outside thread	material admission for portable water ≤ 85 °C
	with bedstop for plug value
	without orifice
	with bedstop for plug value without orifice

Electrical connection

Connector RAST 2.5

Installation arrangement

Recommended: Electrical connection upwards

Tests / Admissions

Shock acc. to DIN IEC 60068-2-27	40 g, 11 ms half sine wave, all directions. Free fall from 1 m on concrete.
Vibration acc. to DIN IEC 60068-2-6	5 g, 2 ... 2000 Hz

Weight

~ 30 g

Packaging

Bulk cargo in cardboard boxes on Euro pallet (500 pcs.)

Accuracy

Parameter		Unit	
Tolerance zero point	max.	% FS	± 1.5
Tolerance full scale	max.	% FS	± 1.5
Resolution		% FS	0.1
Total of linearity, hysteresis and repeatability	max.	% FS	± 1.0
Long term stability acc. to DIN EN 60770		% FS	± 0.5
TC zero point ³⁾	typ.	% FS/10K	± 0.6 ⁴⁾
TC sensitivity ³⁾	typ.	% FS/10K	± 0.15
Ratiometric error ⁵⁾	typ.	% FS	± 0.5

Test conditions: 25 °C, 45% RH, power supply 24 VDC / 5 VDC
TC z.p. / TC s. 2 ... +80 °C

¹⁾ At nominal pressure
⁴⁾ ≥10 bar = max. ±1.0 % FS/10K

²⁾ Ratiometric version only through the electrical connector mechanically protected.
⁵⁾ At ratiometric version only

³⁾ TC = Temperature coefficient

