

OEM Relative pressure transmitter type 400

Pressure range
0 ... 10 – 100 mbar



The type 400 pressure transmitter, with its proven ceramic lever technology, has adjusted temperature compensated sensor signals and is available with a voltage output. The voltage output (VDC) is an amplified, linear signal suitable for direct processing in electronic control systems. The sensors are ideal for continuous level measurement in washing machines, dishwashers etc.

- Robust construction, sensor element has no contact with media
- Special design developed for large scale manufacture at an attractive price
- Fully automated manufacture, including in-line adjustment of zero point and full scale value
- Special snap mounting bracket for easy single handed mounting in sheet steel of varying thicknesses

Technical Overview

Pressure range ¹⁾

Relative	0 ... 10 – 100 mbar
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Operating conditions

Medium		Liquids and neutral gases
Temperature	Medium / ambient Storage	0 ... +70 °C -10 ... +70 °C
Tolerable overload		200 mbar
Rupture pressure		500 mbar
Leak rate		< 0.2 cm ³ /h (Air)

Materials in contact with the medium

Cover	Polypropylene
Diaphragm	Thermoplastic elastomer

Electrical overview

Output / Power supply ²⁾	ratiom. 10 ... 70%	5 VDC ±5%
Load		> 50 kOhm / < 10 nF
Current consumption	At nominal voltage with 50 kOhm load	< 3 mA
Polarity reversal protection		Mechanically protected
Electromagnetic compatibility	The product is designed exclusively for installation in equipment. The customer is responsible for CE conformity.	

Dynamical response

Response time	< 10 ms
Load cycle	< 10 Hz

Protection standard

IP 00	
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Electrical connections

3-pole plug connector RAST 2.5	
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Pressure connection

Pipe Ø 6.2 mm	
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Mounting instruction

Installation arrangement	Diaphragm horizontal (Recommendation) Diaphragm vertical (on request)	Pressure connection and electrical connections downward To be agreed, signal is approx. 0.3 mbar higher than real pressure ³⁾ Snap mounting in sheet steel from 0.9 to 1.5 mm
Mounting		

Weight

~ 17 g	
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Packaging

Cardboard boxes with blister pack inserts (35 pcs)	
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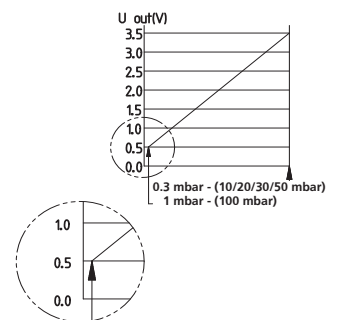
Ordering batches quantities / Transport volumes

Pieces	Execution	Length (cm)	Width (cm)	Height (cm)	Weight (kg)	Blister (35 pcs)
2520	12 boxes per Euro-pallet	120	80	93	103	72
210	1 box	59	39	26	6.9	6

Accuracy

Linearity

Parameter	Unit	10 mbar	20 mbar	30 mbar	50 mbar	100 mbar
Tolerance zero point ⁴⁾	max. % fs	–	± 1.5	± 1.5	± 1.5	± 1.5
Tolerance at 0.5 mbar	max. % fs	± 1.5	–	–	–	–
Tolerance full scale ⁴⁾	max. % fs	± 2.5	± 2.5	± 1.5	± 1.5	± 1.5
Resolution	% fs	0.1	0.1	0.1	0.1	0.1
Total of linearity, hysteresis and repeatability at 0.3 mbar (10 ... 50 mbar) and 1 mbar (100 mbar)	% fs	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5
Long term stability acc. to DIN IEC 60770	% fs	± 1.0	± 1.0	± 0.5	± 0.5	± 0.5
TC zero point ⁵⁾	typ. % fs/10K	± 0.2	± 0.2	± 0.2	± 0.2	± 0.2
TC zero point ⁵⁾	max. % fs/10K	± 0.4	± 0.4	± 0.4	± 0.4	± 0.4
TC sensibility ⁵⁾	max. % fs/10K	± 0.2	± 0.2	± 0.2	± 0.2	± 0.4
Positional error ⁴⁾	mbar	~ 0.3	~ 0.3	~ 0.3	~ 0.3	~ 0.3
Ratiometric error	typ. % fs	0.5	0.5	0.5	0.5	0.5
Ratiometric error	max. % fs	1.0	1.0	1.0	1.0	1.0



Test conditions: 25 °C, 45% rF, Power supply 5 VDC
TK0 / TKE: 0 ... +70 °C



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¹⁾ other pressure ranges on request

²⁾ Other supply voltages and outputs on request.

³⁾ In Case of condensed water, auto-zero significant.

⁴⁾ For changing diaphragm position from horizontal to vertical, approx. 0.3 mbar.

⁵⁾ TC = Temperature coefficient

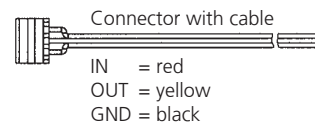
Order code selection table		Order number								
Pressure range	0 ... 10 mbar	4	0	0	.	9	1	1	0	0
	0 ... 20 mbar	4	0	0	.	9	2	1	0	0
	0 ... 30 mbar	4	0	0	.	9	3	1	0	0
	0 ... 50 mbar	4	0	0	.	9	5	1	0	0
	0 ... 100 mbar	4	0	0	.	9	7	1	0	0

▲ Full scale signal at these pressure

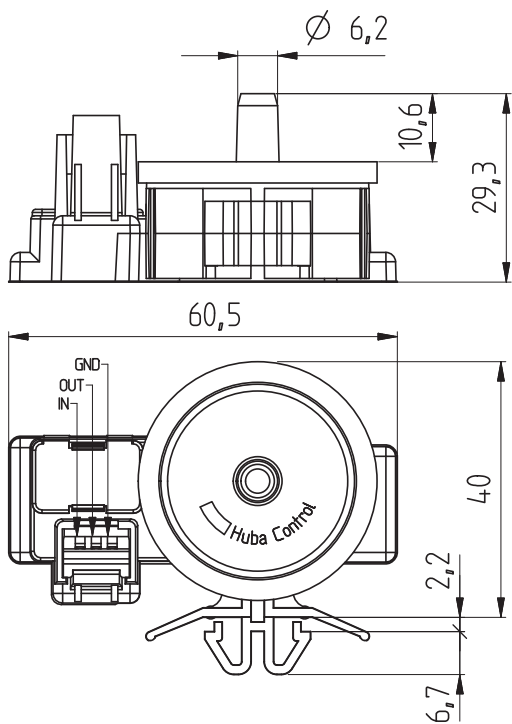
Accessories ¹⁾

		Order number
Connector RAST 2.5 with cable 30 cm		111668
Connector RAST 2.5 with cable 110 cm		101817
Connector RAST 2.5 with cable 150 cm		112282
Calibration certificat		104551

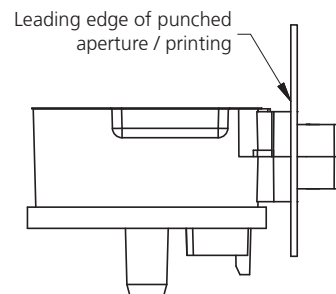
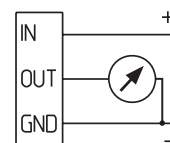
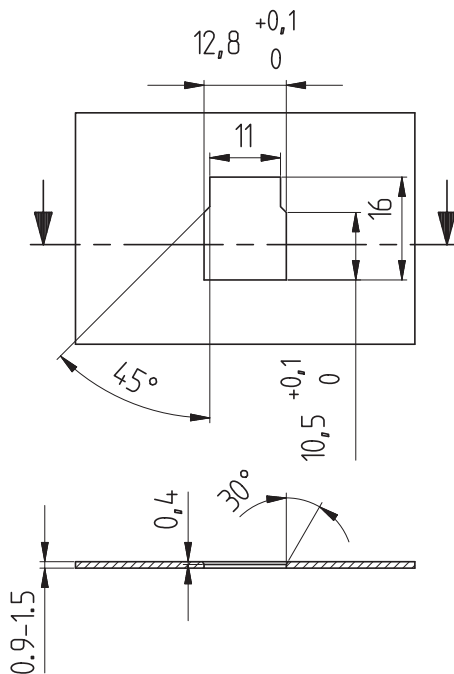
AMP Connector ²⁾	Manufacture's Part No.	Colour	for flexible wire
	3-829868-3	grey	7 x 0.20 mm = 0.22 mm ² or 12 x 0.20 mm = 0.35 mm ²
	1-966194-3	beige	7 x 0.25 mm = 0.35 mm ²



Dimensions in mm / Electrical connections



Hole pattern for mounting (supplied by the customer)



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¹⁾ Accessories supplied loose

²⁾ To be ordered separately from original manufacturer. Further information can be found in the manufacturer specification No. 114-18049.