



Pressure transmitter

Huba Control

OEM Pressure sensor

Type 400



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.

Pressure range

0 ... 10 – 100 mbar

- + 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	0 ... +70 °C
	Storage	-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	Protection class III
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Electrical connections

3-pole plug connector RAST 2.5

Pressure connection

Pipe Ø 6.2 mm

Mounting instruction

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

Weight

- 17 g

Packaging

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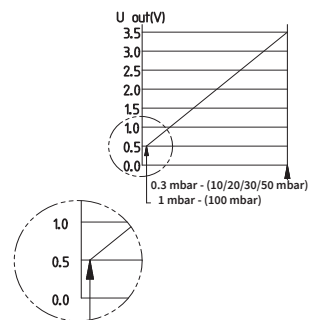
Ordering batches quantities / Transport volumes

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) und 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

¹⁾ other pressure ranges on request

²⁾ Other supply voltages and outputs on request.

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

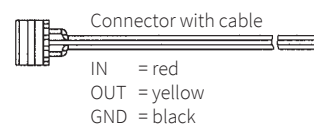
⁴⁾ For changing diaphragm position from horizontal to vertical, approx. 0.3 mbar. ⁵⁾ TC = Temperature coefficient

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

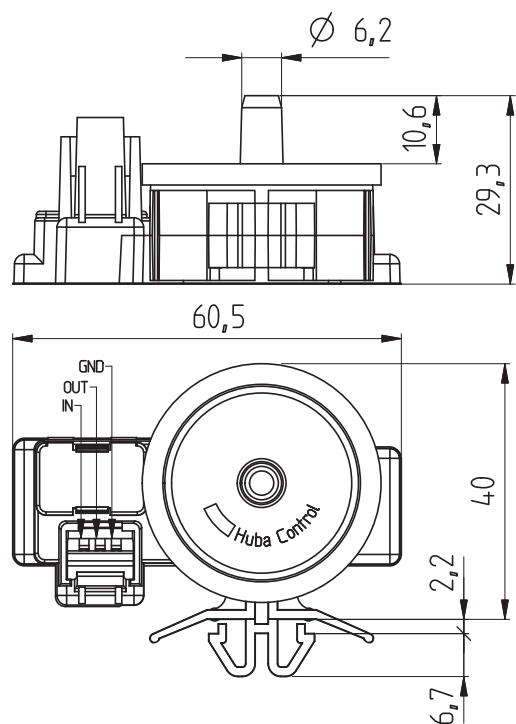
▲ Full scale signal at these pressure

Accessories (supplied loose)		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

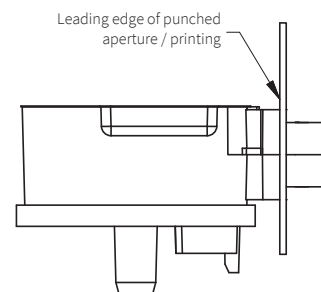
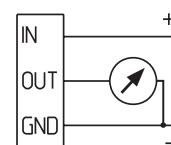
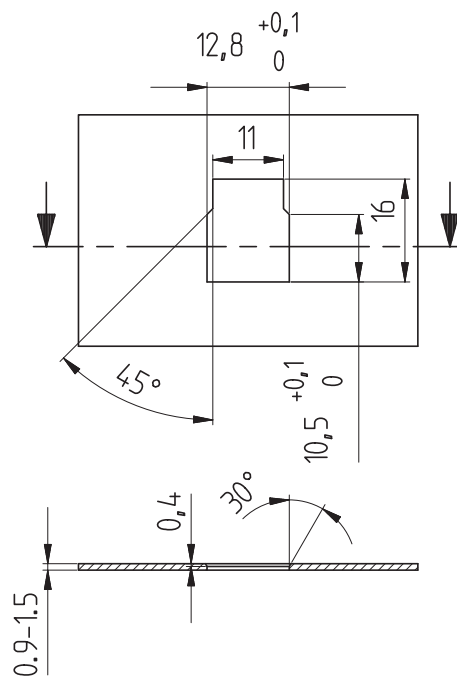
AMP Connector ¹⁾	Manufacturer's Part No.	Colour	for flexible wire
	3-829868-3	grey	7 x 0.20 mm = 0.22 mm ² or 12 x 0.20 mm = 0.35 mm ²
	1-966194-3	beige	7 x 0.25 mm = 0.35 mm ²



Dimensions in mm / Electrical connections



Hole pattern for mounting (supplied by the customer)



¹⁾ To be ordered separately from original manufacturer. Further information can be found in the manufacturer specification No. 114-18049.

Huba Control AG

Headquarters Schweiz
Industriestrasse 17
CH-5436 Würenlos
Telefon +41 56 436 82 00
Fax +41 56 436 82 82
info.ch@hubacontrol.com

Huba Control AG

Niederlassung Deutschland
Schlattgrabenstrasse 24
D-72141 Walddorfhäslach
Telefon +49 7127 2393 00
Fax +49 7127 2393 20
info.de@hubacontrol.com

Huba Control AG

Vestiging Nederland
Hamseweg 20A
NL-3828 AD-Hoogland
Telefoon +31 33 433 03 66
Telefax +31 33 433 03 77
info.nl@hubacontrol.com

Huba Control SA

Succursale France
Rue Lavoisier
Technopôle Forbach-Sud
F-57602 Forbach Cedex
Téléphone +33 3 87 84 73 00
Télécopieur +33 3 87 84 73 01
info.fr@hubacontrol.com

Huba Control AG

Branch Office United Kingdom
Unit 13 Berkshire House, County Park
Business Centre, Shrivenham Road
Swindon Wiltshire SN1 2NR
Phone +44 1993 77 66 67
Fax +44 1993 77 66 71
info.uk@hubacontrol.com

www.hubacontrol.com

