

OEM Relative and differential pressure transmitter type 401

Pressure range
0 ... 3 – 8 mbar



Type 401 pressure transmitters sense ultra fine changes in air pressure and are designed to provide optimum control. The dual component diaphragm with it's unique geometry, gives highly sensitive operation and excellent repeatability, even in the range below 20 Pascal.

- Special development for optimize of combustion mixture in gas boilers
- With the special diaphragm geometry inherently stable due to homogeneous manufacture with the 2 component injection moulding process (plastic silicone)
- Ideal dimensioning for high sensitivity and with long term stability
- Excellent repeatability even in the lower pressure range (< 20 Pascal)

Technical overview

Pressure range

Relative and differential	0 ... 3 – 8 mbar
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Operating conditions

Medium	Air and neutral gases
Temperature	Medium / ambient 0 ... +70 °C Storage -40 ... +70 °C
Tolerable overload on one side	25 mbar 100 mbar short period at room temperature
Rupture pressure	200 mbar
Leak rate	< 5 cm ³ /h (Air), at nominal pressure

Materials in contact with the medium

Case	Polycarbonate (PC)
Diaphragm	LSR (Liquid Silicon Rubber)
Sensor	Ceramic Al ₂ O ₃

Electrical overview

Output	0.5 ... 4.5 V
Power supply	10.4 ... 18 VDC ¹⁾
Load	> 15 kOhm (to GND)
Current consumption	At nominal pressure without load < 8 mA
Polarity reversal protection	Mechanically protected
Electrical compatibility	The product is designed exclusively for installation in equipment. The customer is responsible for CE conformity.

Dynamic response

Response time	< 10 ms
Load cycle	< 10 Hz

Protection standard

IP 00

Electrical connections

3 pole plug connector RAST 2.5

Pressure connection

Pipe Ø 6.2 mm

Mounting instruction

Installation arrangement	Diaphragm horizontal (recommend) Diaphragm vertical (on request)	Pressure connections facing downward Pressure connections lateral, signal approx. 1.3 Pa below actual pressure
Mounting		Snap mounting in sheet steel (thickness 1 and 2 mm) Mounting bracket type A / type B

Tests / Admissions

DVGW according to DIN EN 1854
CE-0085BM0306

Weight

~ 45 g

Packaging

Cardboard boxes with blister pack inserts (returnable).

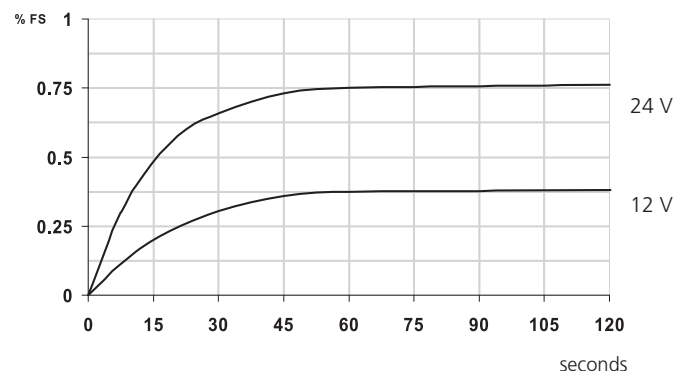
Ordering batches quantities / Transport volumes

Pieces	Varaint	Length (cm)	Width (cm)	Height (cm)	Weight (kg)	Blister (20 pcs)
1440	12 Box on euro-palette	120	80	93	134	72
120	1 Box	59	39	26	9.5	6

Accuracy

Signal drift

Parameter		Unit	
Tolerance zero point ²⁾	max.	% fs	± 0.5
Tolerance full scale ²⁾	max.	% fs	-1.5 /+0.5
Resolution		% fs	0.1
Total of linearity, hysteresis and repeatability	max.	% fs	± 0.3
Long term stability acc. to DIN EN 60770		% fs	± 1.0
TC zero point ³⁾	typ.	% fs/10K	± 0.2
TC zero point ³⁾	max.	% fs/10K	± 0.3
TC sensitivity ³⁾	typ.	% fs/10K	± 0.1



¹⁾ Power supply possible up to 28 VDC (with higher Power up drift see diagram)

²⁾ For changing diaphragm position from horizontal to vertical, approx. -0.13 mbar

³⁾ TC = Temperature coefficient

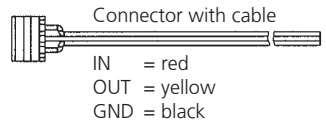
Order code selection table		Order number								
Pressure range	0 ... 3 mbar	4	0	1	.	9	3	0	0	0
	0 ... 5 mbar	4	0	1	.	9	5	0	0	0
	0 ... 8 mbar	4	0	1	.	9	8	0	0	0

▲ Full scale signal at these pressure

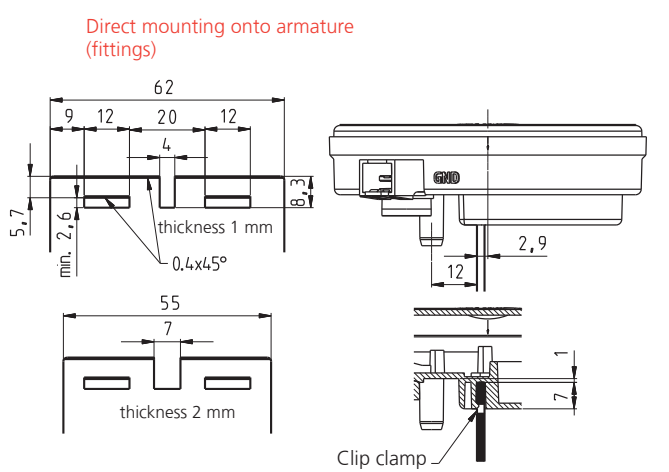
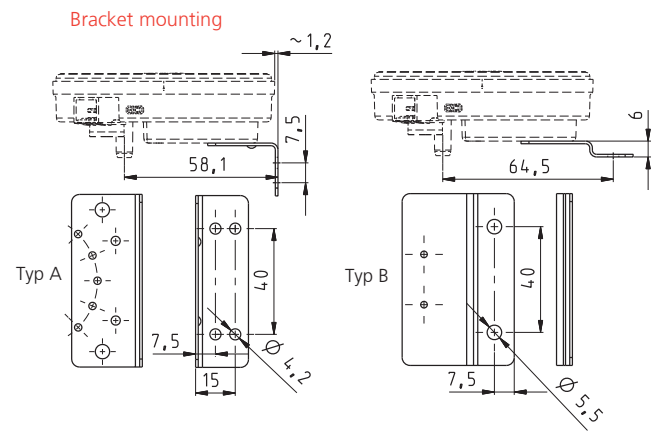
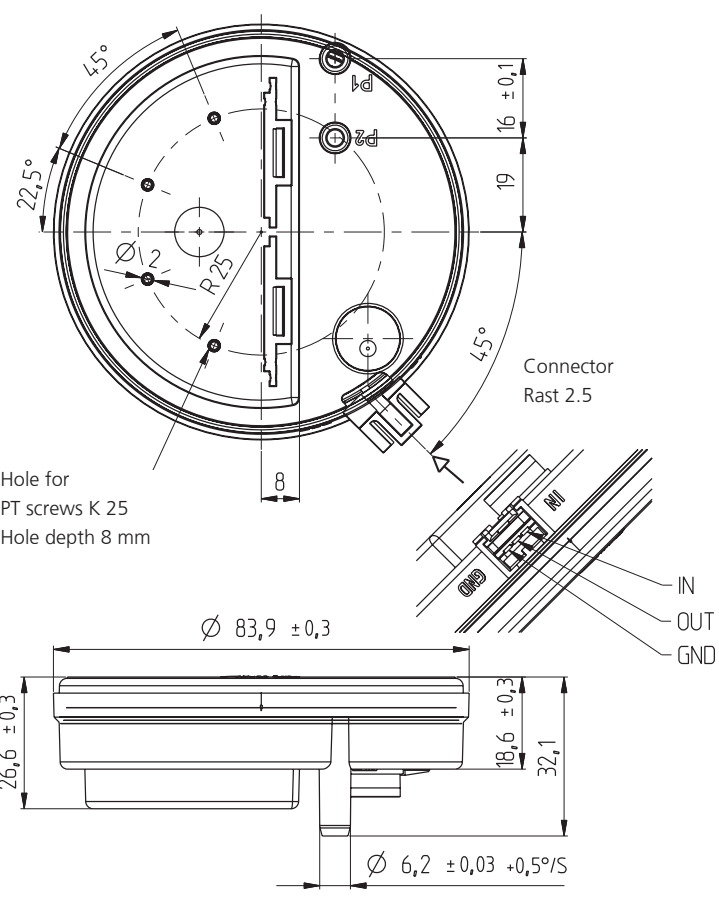
Accessories ¹⁾

		Order number
Bracket type A		100295
Bracket type B		100098
Special screws for fastening transmitter to bracket (2 screws per transmitter required)		102976
Orifice for pulsed pressure		100251
Connector with cable Rast 2.5	30 cm	111668
Connector with cable Rast 2.5	110 cm	101817
Connector with cable Rast 2.5	150 cm	112282
Calibration certificate		104551

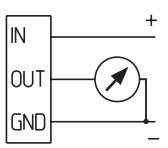
AMP connector ²⁾	Manufacture's Part No.	Colour	for flexible wire
	3-829868-3	grey	7 x 0.20 mm = 0.22 mm ² or 12 x 0.20 mm = 0.35 mm ²
	1-966194-3	beige	7 x 0.25 mm = 0.35 mm ²



Dimensions in mm / Electrical connections



Other dimensions as per «Thickness 1 mm»



¹⁾ Accessories supplied loose. ²⁾ To be ordered separately from original manufacturer. Further information can be found in the manufacturer specification No. 114-18049.49 zu finden.

FOR FINE PRESSURE AND FLOW MEASUREMENT

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