

OEM Relative and differential pressure transmitter type 403

Pressure range
0 ... 3 – 8 mbar

Type 403 pressure transmitters sense ultra-fine changes in gas pressure for use in air / gas ratio control systems. All materials used are compatible with flammable gas. When used in combination with our type 401 pressure transmitter, the optimum air / gas ratio can be achieved.

- Special development for optimize of combustion mixture in gas boilers
- With the special diaphragm geometry inherently stable due to homogeneous manufacture with the 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, neutral and burnable gases
Temperature	Medium / ambient Storage	0 ... +70 °C -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 measuring range)

Materials in contact with the medium

Case	Polycarbonate (PC)
Diaphragm	NBR (NBR admission for burnable gas)
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 voltage without load	< 8 mA
Polarity reversal protection		Mechanically protected
Electromagnetic 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 connector RAST 2.5

Pressure connection

Pipe Ø 6.2 mm

Mounting instruction

Installation arrangement	Diaphragm horizontal (Recommend)	Pressure connections facing downward
	Diaphragm vertical (on request)	Pressure connections lateral, signal approx. 13 Pa below actual pressure
Mounting		Snap mounting in sheet steel (thickness 1 and 2 mm)
		Mounting bracket type A / type B

Tests / Admissions

CE-0085BP0459 acc. EG gas equipment directive (2009/142/EG) acc. norm DIN EN 1854 certificated by DVGW		Before initial operation resp. gas supply make sure that in case of breach of the pressure transmitters case at 1.5 fold max. admissible incoming pressure not more than 70 dm ³ /h will be able to leak!
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Weight

~ 45 g

Packaging

Cardboard boxes with blister pack inserts (returnable).

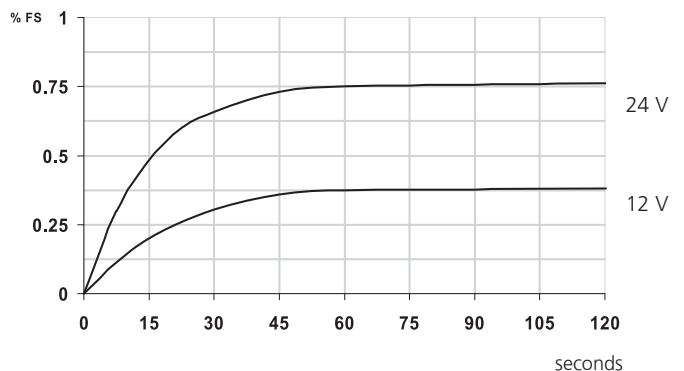
Ordering batches quantities / Transport volumes

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

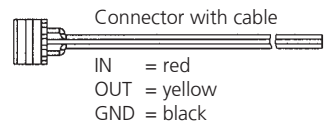
Order code selection table	Order number
Pressure range 0 ... 3 mbar	4 0 3 . 9 3 0 0 0
0 ... 5 mbar	4 0 3 . 9 5 0 0 0
0 ... 8 mbar	4 0 3 . 9 8 0 0 0

▲ Full scale signal at these pressure

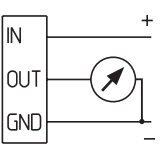
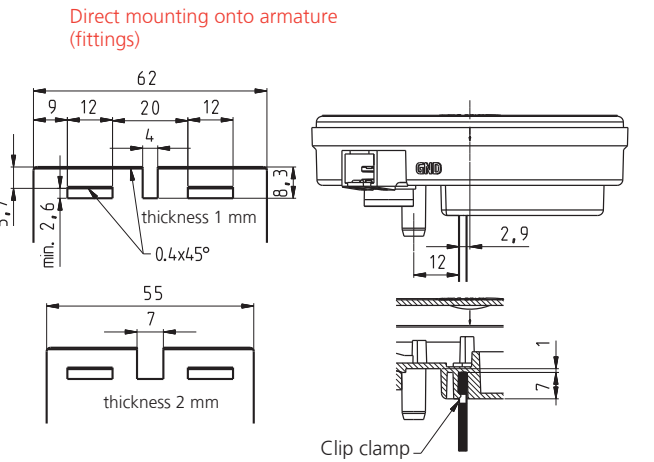
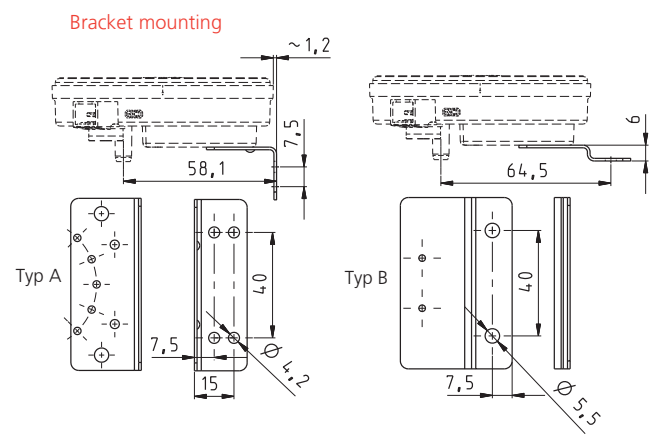
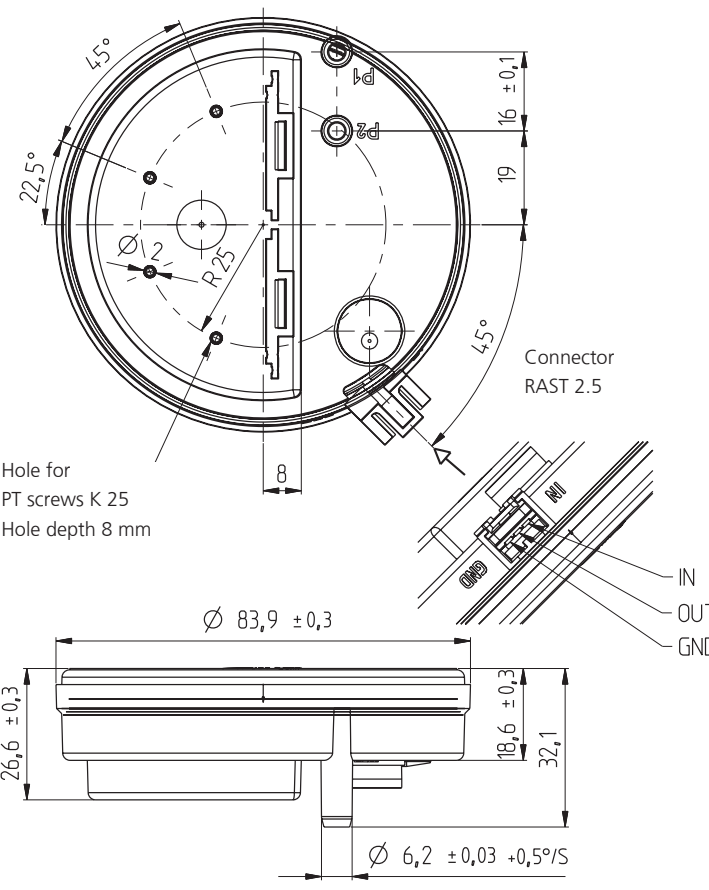
Accessories ¹⁾

Accessories	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



Huba Control

FOR FINE PRESSURE AND FLOW MEASUREMENT

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