



Differential pressure transmitter

Huba Control

OEM Relative and differential pressure transmitter

Type 403

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.



Pressure range
0 ... 3 – 8 mbar

- + Special development for optimize of combustion mixture in gas boilers
- + With the special diaphragm geometry inherently stable due to homogeneous manufacture
- + 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

Operating conditions

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

Dynamic response

Response time	< 10 ms
Load cycle	< 10 Hz

Electrical connections

3 pole connector RAST 2.5

Protection standard

IP 00

Protection class

III

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. 13 Pa below actual pressure
Mounting		Snap mounting in sheet steel (thickness 1 and 2 mm) Mounting bracket type A / type B

Tests / Admissions

DVGW	CE-0085BP0459 (DVGW) acc. DIN EN 1854
Gas appliance directive	2016/426/EG

Weight

Without accessories ~ 45 g

Packaging

Cardboard boxes with blister pack inserts (returnable).

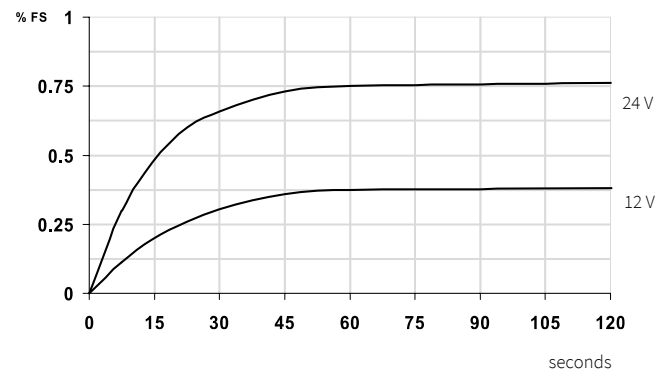
Ordering batches quantities / Transport volumes

Pieces	Variant	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

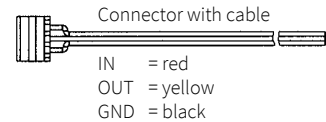
▲ Full scale signal at these pressure

Accessories (supplied loose)

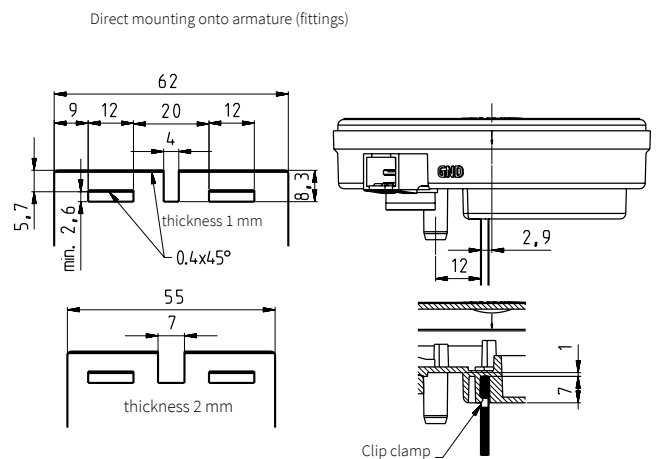
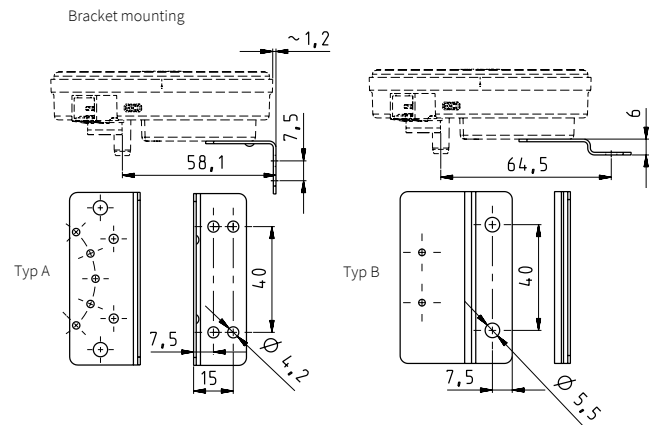
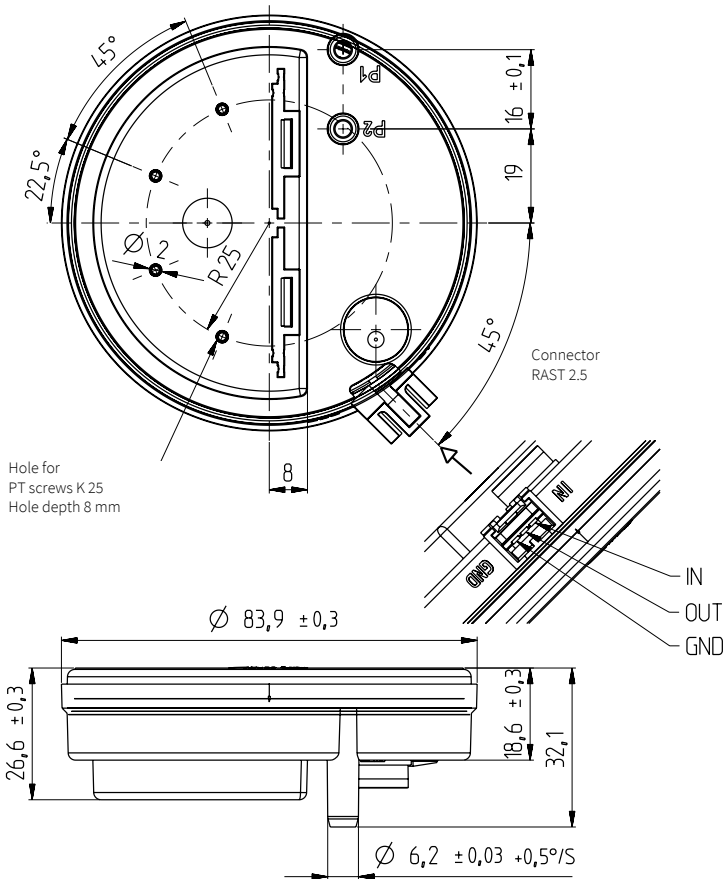
Order number

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

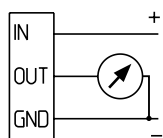
AMP connector ¹⁾	Manufacturer's Part No.	Colour	for flexible wire
	3-829868-3	grey	7 x 0.20 mm = 0.22 mm ² or 12 x 0.20 mm = 0.35 mm ²
	1-966194-3	beige	7 x 0.25 mm = 0.35 mm ²



Dimensions in mm / Electrical connections



Other dimensions as per «Thickness 1 mm»



¹⁾ To be ordered separately from original manufacturer. Further information can be found in the manufacturer specification No. 114-18049.49

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