

OEM Relative and differential pressure transmitter

0 ... 3 / 0 ... 5 / 0 ... 8 mbar



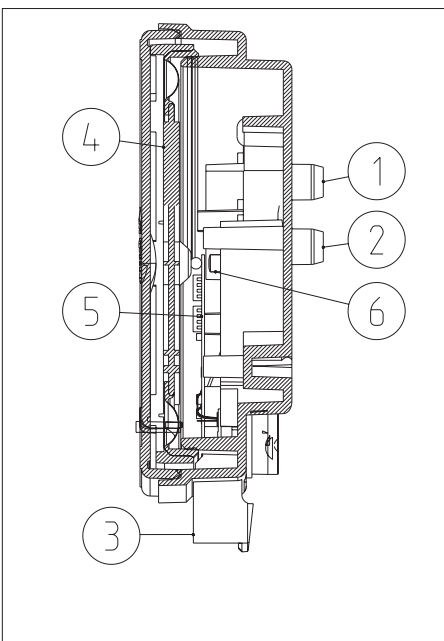
Huba Control

FEINE MESSIDEEN FÜR DRUCK UND STRÖMUNG
FOR FINE PRESSURE AND FLOW MEASUREMENT
LA FINESSE DES MESURES DE PRESSION ET DE DEBIT

Technical overview

The differential pressure transmitters of type 403 are outlined for the optimization of calorific values in gas fired heating systems. All materials used are compatible with burnable gas. In combination with the differential pressure transmitter type 401 a electronic airgascompound can be realized.

The type 403 series pressure transmitters, with its unique proven ceramic fulcrum lever technology, has calibrated, temperature-compensated sensor signals, available as a voltage output. The (VDC) voltage output is an amplified, linear signal suitable for direct processing in electronic control systems.



Legend to cross-section drawing

- 1 Pressure connection P1 (higher pressure)
- 2 Pressure connection P2 (lower pressure)
- 3 Electrical connection
- 4 Diaphragm
- 5 Ceramic fulcrum lever with amplified electronics
- 6 Over pressure stop

The distinct advantages

- 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-NBR)
- Ideal dimensioning for high sensitivity and with long-time stability
- Best repeatability even in the lower pressure range (< 20 Pascal)

Medium

Air, neutral and burnable gases

Pressure range

0 ... 3 / 0 ... 5 / 0 ... 8 mbar

Tolerable overload on one side

25 mbar (100 mbar short period at room temperature)

Rupture pressure

200 mbar

Leak rate

< 5 cm³/h (air, at measuring range)

Materials in contact with medium

Cover: Polycarbonate(PC)

Diaphragm: NBR admission for burnable gas

Sensor: Ceramic Al₂O₃ / glass

Temperature

Medium and ambience 0 °C ... +70 °C

Storage

-40 °C ... +70 °C

Power supply / Output

Power supply: 10.4 ... 18 VDC

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

Output:

0.5 ... 4.5 VDC

Load

> 15 kOhm (against GND)

Current consumption

At nominal voltage without load < 8 mA

Dynamic response

Suitable for static and dynamic measurements

Response time < 10 ms

Load cycle < 10 Hz

Electrical connection

3-pole plug connector RAST 2.5
Proposal: AMP DUOPLUG 2.5™

Polarity reversal protection

Mechanically protected

Protection standard

IP 00

Pressure connections

Hose connector Ø 6.2 mm

Installation arrangement

Diaphragm horizontal:
Pressure connections downward

Diaphragm vertical:

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 according to DIN EN 1854
CE-0085BP0459

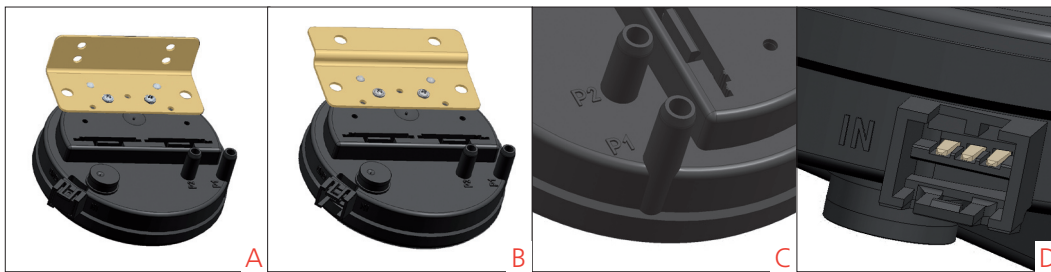
Weight

approx. 45 g

Packaging

Cardboard boxes with blister-pack inserts (returnable).

Ordering batches quantities and transport-volumes (see order code selection table)



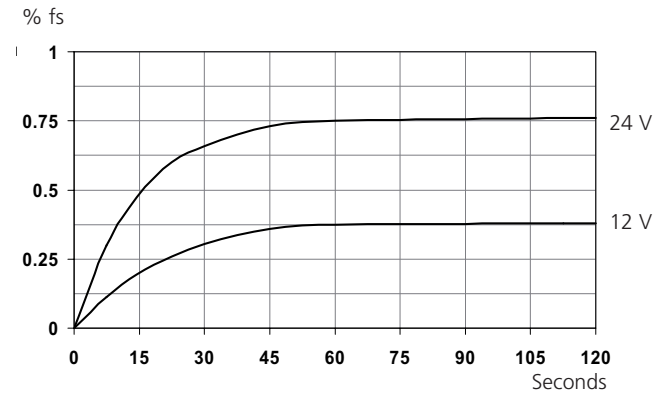
Versions

- A – Mounting bracket type A
- B – Mounting bracket type B
- C – Pressure connection Ø 6.2 mm
- D – Electrical connection RAST 2.5

Accuracy

Parameter		Unit	
Tolerance zero point ¹⁾	max.	% fs	± 0.5
Tolerance full scale ¹⁾	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 ²⁾	typ.	% fs/10K	± 0.2
TC zero point ²⁾	max.	% fs/10K	± 0.3
TC sensitivity ²⁾	typ.	% fs/10K	± 0.1

Signal drift



Order code selection table

Pressure range	Order-No.
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

▲ Fullscale signal at these pressures

Ordering batches quantities / Transport-volumes

Pieces	Variant	Length (cm)	Width (cm)	Height (cm)	Weight (kg)	Blister (pcs)
1440	12 Box on Euro-palette	120	80	93	100	72
120	1 Box	59	39	26	9.5	6

Accessories

	Order number
Bracket type A ³⁾	103460
Bracket type B ³⁾	100098
Special screws for fastening transmitter to bracket (2 screws per transmitter required) ³⁾	102976
Orifice for pulsed pressure	100251
AMP DUOPLUG 2.5™ Connector with cable 30 cm	111668
AMP DUOPLUG 2.5™ Connector with cable 110 cm	101817
AMP DUOPLUG 2.5™ Connector with cable 150 cm	112282

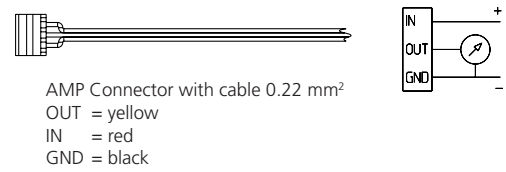
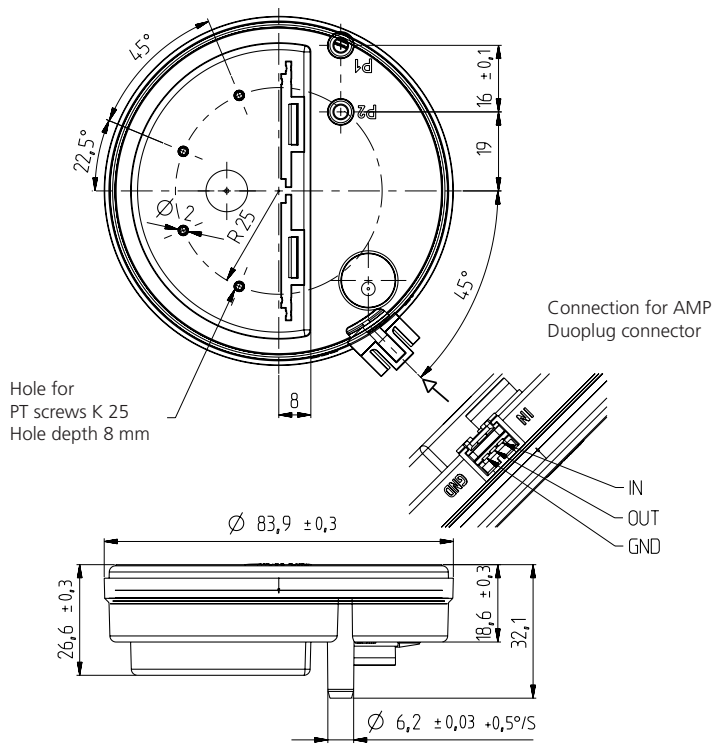
AMP Connector ⁴⁾	Manufacturer's Part No.	Colour	for flexible wire
	3-829868-3	grey	0.12 – 0.35 mm ²
	1-966194-3	beige	0.35 mm ²

¹⁾ For changing diaphragm position from horizontal to vertical, approx. 13 Pa

²⁾ TC = Temperature coefficient

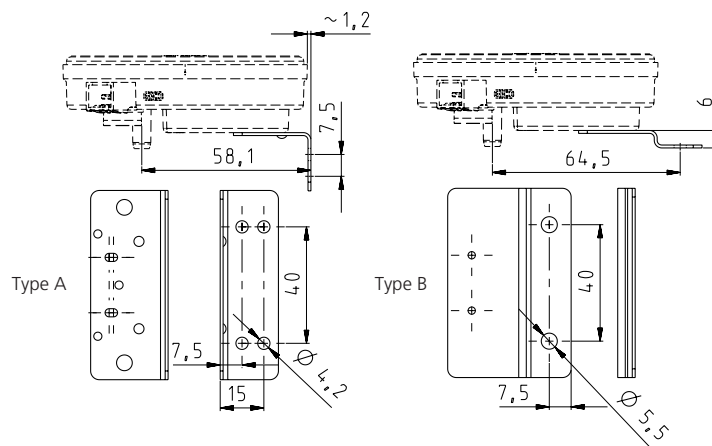
³⁾ Accessories supplied loose

⁴⁾ To be ordered separately from original manufacturer. Further information can be found in the manufacturer fabricator specification No. 114-18049

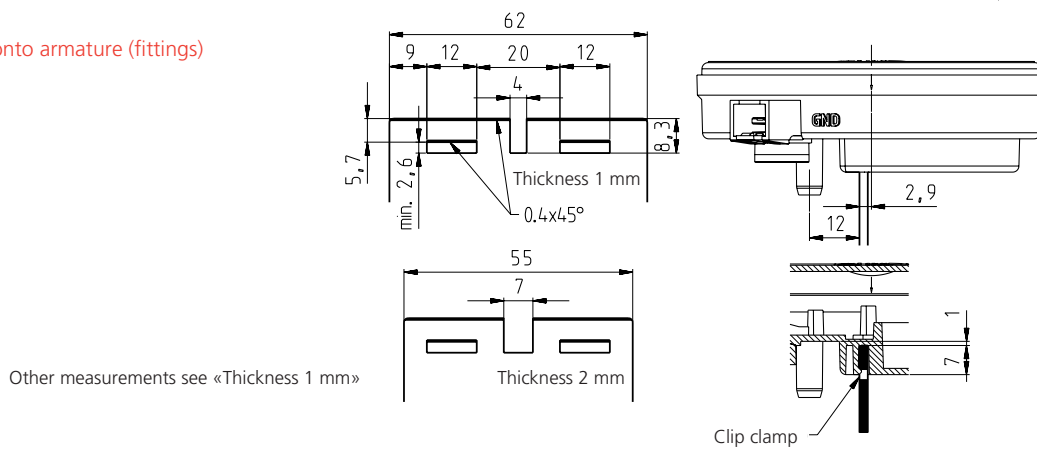


Variant for fastening

Bracket mounting



Direct mounting onto armature (fittings)



Electromagnetic compatibility

The product is designed exclusively for installation in equipment. The customer is responsible for CE conformity.

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