

Melt pressure transducer for pressure measurement in hot media and small areas



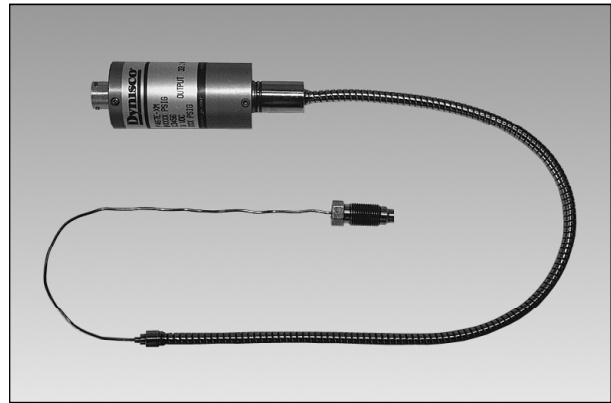
Description

The models MDA435 und MDA467 were designed for applications where mounting space is extremely limited. The exposed part of the capillary allows a small bending radius of 3 mm.

The specially developed snout configuration facilitates transducer installation in restricted areas. The pressure transmission from the diaphragm to the strain gauge is done through a temperature compensated liquid column.

Features

- Installation for media temperature up to 400 °C
- Pressure transducer for small areas
- Flexible capillary between diaphragm and housing
- Liquid-filled transmission system
- Electrical built-in calibration
- Exposed, bendable capillary
- Fits in space restricted areas



Technical Data / Operating Data

Pressure range	0 - 35 bar to 0 - 2000 bar	Maximum overload (without influencing operating data)	2 x pressure range but for 1000 and 1400 bar range max. 1750 bar, for 2000 bar max. 2400 bar
Accuracy	MDA435 ± 0.5 % f.s.v. - up to 50 bar ± 1 % f.s.v. MDA467 ± 1 % f.s.v.	Burst pressure	6 x pressure range max. 3000 bar
Repeatability	MDA435 ± 0.1 % f.s.v. - up to 50 bar ± 0.2 % f.s.v. MDA467 ± 0.2 % f.s.v.	Material in contact with media	15-5 Mat. No. 1.4545, DyMAX coated
Resolution	infinite		

Electrical Characteristics

Configuration	4-arm Wheatstone bridge strain gauge (DMS)	Supply voltage	10 V DC, max. 12 V DC
Strain resistance	350 Ω	Internal Shunt-Calibration	80 % f.s.v. ± 0.5 % MDA435 ± 1.0 % MDA467
Output signal	3.33 mV/V	Leakage resistance	1000 M Ω at 50 V DC
Zero balance	± 5 % f.s.v., MDA435 ± 10 % f.s.v., MDA467		

Temperature influence

Diaphragm

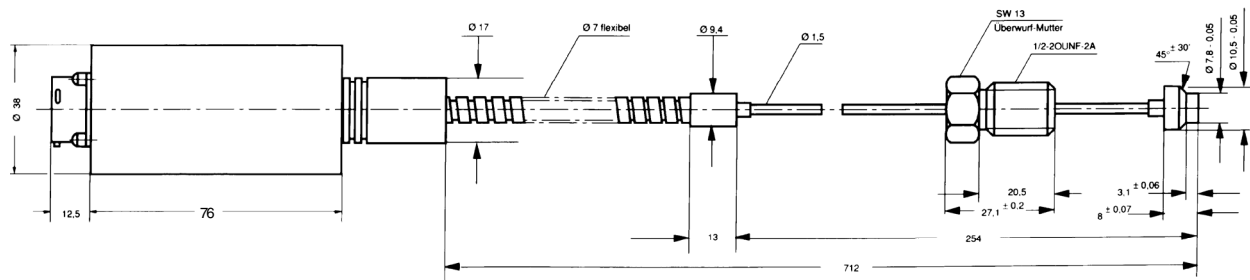
Max. Temperature 400 °C
Zero shift due to temperature change
MDA435 < 0,2 bar / 100 °C
MDA467 < 0,4 bar / 100 °C

Housing

Max. Temperature 120 °C
Zero shift due to temperature change
MDA435 ± 0.2% f.s.v./10 °C
MDA467 ± 1.0 % f.s.v./10 °C
Sensitivity shift due to temperature change
MDA435 ± 0.1% f.s.v./10°C
-up to 50 bar ±0.2 % f.s.v./10°C
MDA467 ± 0.4% f.s.v./10°C

Dimensions

MDA435 / MDA467



Accessories

Indicator 1390, Process Readout UPR700, Process Controller ATC770, Cleaning Tool Kit, Machining Tool Kit

Order specifications

MDA4XX - XXX - XXXX

Model

MDA435 = 0.5% Accuracy
MDA467 = 1.0% Accuracy

Options

Pressure range

35 ¹⁾ = 0 - 35 Bar	3,5C = 0 - 350 Bar	1,4M = 0 - 1400 Bar
50 ¹⁾ = 0 - 50 Bar	5C = 0 - 500 Bar	2M = 0 - 2000 Bar
1C = 0 - 100 Bar	7C = 0 - 700 Bar	¹⁾ only MDA435
2C = 0 - 200 Bar	1M = 0 - 1000 Bar	

Conversion table psi/bar and inch/mm on page 141.

Options on page 136.