

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



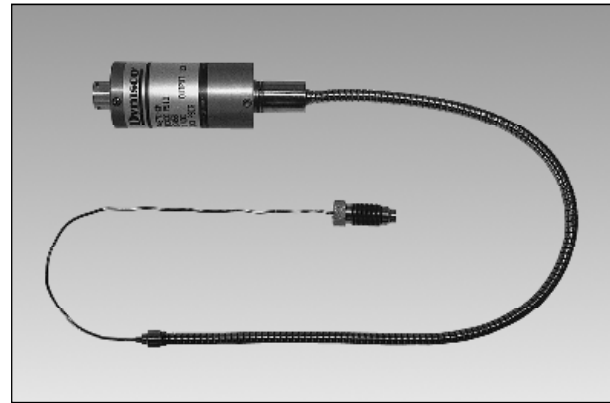
## Description

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 $\pm 0.5$ % f.s.v. - up to 50 bar $\pm 1$ % f.s.v. MDA467 $\pm 1$ % f.s.v.	Burst pressure	6 x pressure range max. 3000 bar
Repeatability	MDA435 $\pm 0.1$ % f.s.v. - up to 50 bar $\pm 0.2$ % f.s.v. MDA467 $\pm 0.2$ % 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 $\Omega$	Internal Shunt-Calibration	80 % f.s.v. $\pm 0.5$ % MDA435 $\pm 1.0$ % MDA467
Output signal	3.33 mV/V	Leakage resistance	1000 M $\Omega$ at 50 V DC
Zero balance	$\pm 5$ % f.s.v., MDA435 $\pm 10$ % f.s.v., MDA467		

## Temperature influence

### Diaphragm

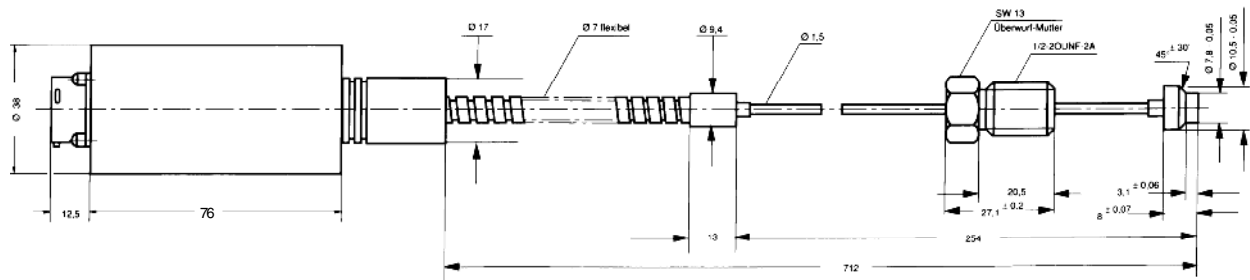
Max. Temperature 400 °C  
Zero shift due to temperature change  
MDA435 < 0,2 bar / 100 °C  
MDA467 < 0,4 bar / 100 °C

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

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

Options on page 136.