

# Intrinsically safe melt pressure transmitter for pressure measurement in hot media and small areas

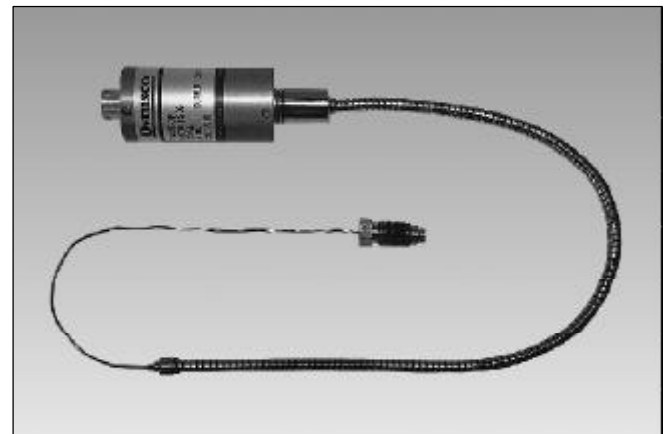
## Description

The intrinsically safe melt pressure transducer series EMT based on the proven melt pressure transmitter series MDT. The integrated, PTB-approved, 2-wire mAmp amplifier converts the process pressure into an proportional output signal. The 2-wire mAmp-amplifier technique is insensitive to noise and well suited for economical long cable runs.

Many of the features found in Dyniscos standard MDT-series have been incorporated into the EMT-series, including proven bonded strain gauge construction for stable operation, a flexible armored capillary between the amplifier housing and the diaphragm and a flush diaphragm. Another advantage is the electrical built-in calibration.

## Features

- Intrinsically safe according Ex-safety class  
EEx ia IIC T5 up to 80 °C and EEx ia IIC T1-T4 up to 85 °C
- Installation for media temperature up to 400 °C
- Pressure transmitter for small areas
- Flexible capillary between diaphragm and housing
- Electrical built-in calibration



## Technical Data / Operating Data

Pressure range	0 - 35 bar to 0 - 2000 bar	Maximum overload (without influencing operating data)	2 x pressure range for range 1000 and 1400 bar max. 1750 bar and max. 2450 bar for range 2000 bar
Accuracy	EMT435 2 ± 0.5 % f.s.v. - up to 50 bar ± 1 % f.s.v. EMT467 2 ± 1 % f.s.v.	Burst pressure	6 x pressure range max. 3000 bar
Repeatability	EMT435 2 ± 0.1 % f.s.v. - up to 50 bar ± 0.2 % f.s.v. EMT467 2 ± 0.2 % f.s.v.	Material in contact with media	15-5 Mat. No. 1.4545
Resolution	infinite		

## Electrical Characteristics

Configuration	4-arm Wheatstone bridge strain gauge (DMS)	Power consumption	< 20 mA
Output signal	4 - 20 mA ( $R_L < 750 \Omega$ at 28 V or $< 145 \Omega$ at 15 V)	Zero balance	- 2 % / + 10 % of full scale adjustable
Supply voltage	15 - 28 V DC -15% +0% via approved electrical equipment acc. to EN 50 020	Internal Shunt-Calibration	80 % of full scale ± 10 %
		Isolation resistance	1000 M $\Omega$ at 50 V DC

**Model**  
**EMT435 2**  
**EMT467 2**

### Temperature influence

#### Diaphragm

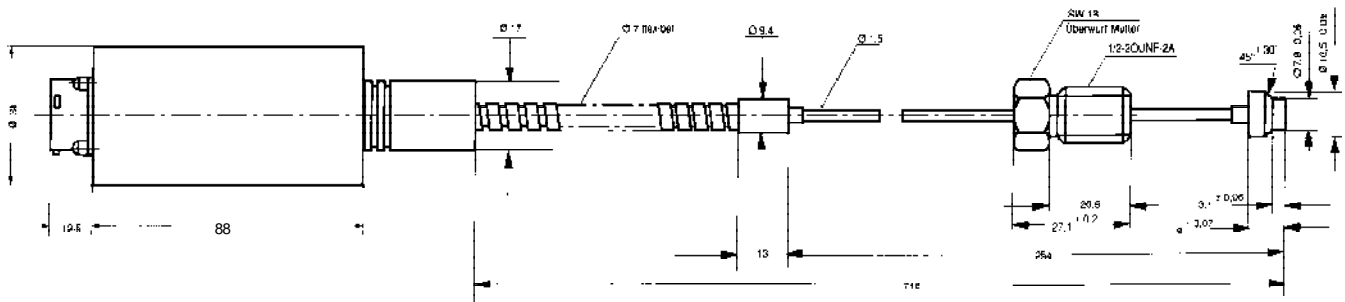
Max. temperature 400 °C  
 Zero shift due to temperature change  
 EMT435 2 ± 0.2 bar / 10 °C  
 EMT467 2 ± 0.4 bar / 10 °C

#### Housing

Max. temperature 85 °C  
 Zero shift due to temperature change ± 0.2 % f.s.v. / 10 °C  
 Sensitivity shift due to temperature change  
 EMT435 2 ± 0.1% f.s.v./10°C  
 -up to 50 bar ± 0.2% f.s.v./10°C  
 EMT467 2 ± 0.4% f.s.v./10°C

### Dimensions

EMT435 2 / EMT467 2



### Accessories

Ex-Power Supply, Cleaning Tool Kit, Machining Tool Kit

### Order specifications

EMT4XX 2 - XXX - XXX

#### Model

EMT435 2 = 0.5% Accuracy  
 EMT467 2 = 1.0% Accuracy

#### Option

#### 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  
 2C = 0 - 200 bar    1M = 0 - 1000 bar    1) EMT435 2 only

Conversion table psi/bar and inch/mm on page 181.

Options on page 183.