FISCHER MESS- UND REGELTECHNIK

ME 49 || Pressure transmitter for hazardous areas

This pressure transmitter with ceramic gauge head is suitable for accurate measurement of positive / negative gauge pressure in hazardous areas.

The units meet demands for type of protection ''**EEx ib IIC T6**".

They are approved for usage in zone 1 and 2 hazardous areas given they are connected to intrinsically safe circuits.



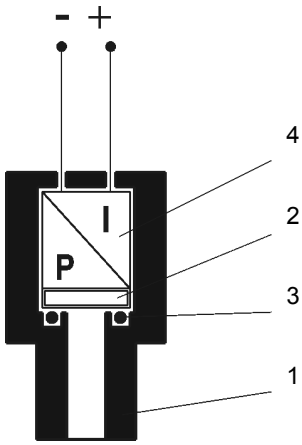
Description and Functions

The measuring pressure directly acts on a ceramic membrane which deforms during pressurization.

When the membrane is deformed the output signal of the measuring bridge - located on the back of the membrane - changes.

The electronic transformer located in the housing of the pressure transmitter converts the sensor signal into an electric standard signal.

Schematic Diagram



1. threaded stem
2. gauge head
3. O-ring
4. electric transformer

Features

- high precision of measurements
- direct measuring sensor without transfer fluid
- good long-time stability
- field housing IP65

Typical Applications

- gas supply
- materials processing
- environmental technology
- process engineering

Specifications

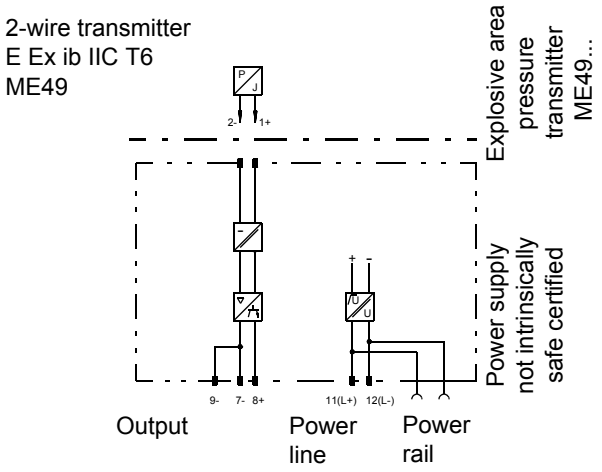
General

Measuring range	40 mbar	60 mbar	100 mbar	160 mbar	250 mbar	400 mbar	600 mbar	1 bar	1.6 bar	2.5 bar	4 bar	6 bar	10 bar	16 bar	25 bar	40 bar
Safe overpressure limit	4 bar	4 bar	4 bar	6 bar	6 bar	6 bar	10 bar	4 bar	4 bar	8 bar	8 bar	12 bar	32 bar	32 bar	60 bar	60 bar

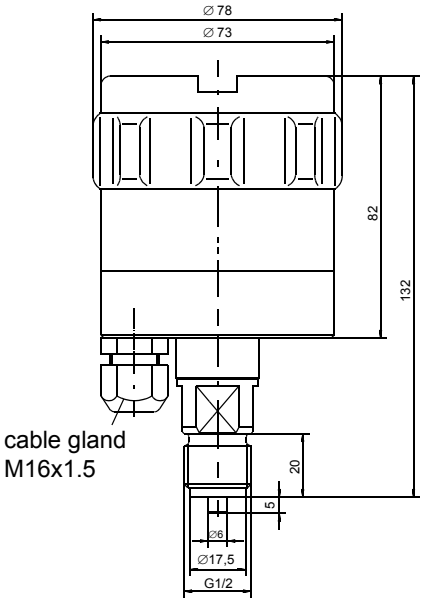
Linearity	± 0.5% FS
Hysteresis	< 0.1% FS
Ambient temperature	-20° to +60°C
Media temperature	-20° to +60°C
Storing temperature	-30° to +70°C
	Electrical
Supply voltage (current loop)	24 V DC (nominal) (range: 15-30 V DC)
Limit values for loop power supply	$U_i \leq 30$ V $I_i \leq 100$ mA $P_i \leq 750$ mW
internal effective capacity	Ci 15 nF
internal effective inductivity	Li 90 µH
Signal output	4 … 20 mA
Electrical connection	2-wire
Output load impedance	$\leq 450\Omega$ or $R_L[\Omega] \leq (U_B - 15V) / 0{,}02$ A
Output current limit	Approx. 30 mA
Temperature coefficient: zero	0.4% FS / 10K
Temperature coefficient: span	0.05% FS / 10K
	Ex-Protection Rating
Marking	EEx ib IIC T6
Marking according to directive 94/9/EG	CE0032 ⟨Ex⟩ II 2G
EC type approval certificate	BVS 03 ATEX E 414
	Connections, Materials, Mounting
Pressure port	G½ B threaded stem according to DIN EN 837
Electrical connection	Internal terminal strip, M16 x 1.5 cable gland
Protection class	IP 65 per DIN EN 60 529
Material: air/gas contact parts	Stainless steel 1.4571, ceramic, FPM (fluorelastomere)
Material: housing	Coated aluminium
Mounting	Mounting by connection shank or sleeve per DIN EN 837 Wall-mounting by mounting panel MZ 310... and manometer connection unit MZ 290... Screwed manometer connection MZ 27... enables direct connection of pipework

Dimensions

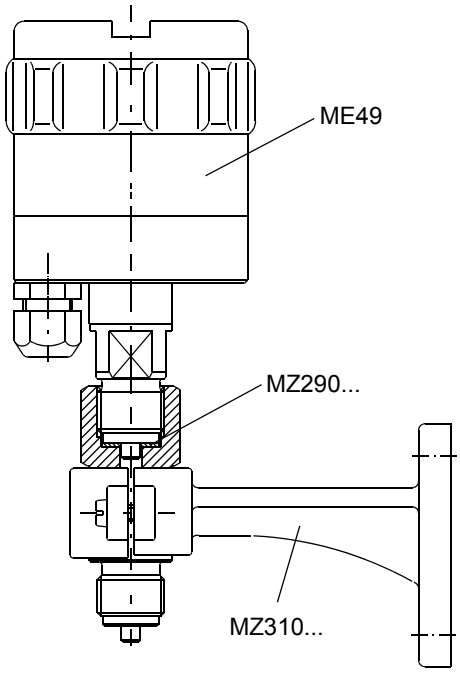
Connections



Dimensions



Wallmounting



Ordering Code

Pressure Transmitter
EEx ib IIC T 6

ME49

F			8	7	B	E	A	0	0	0	0

Construction
Construction in Fischer type field housing

Measuring Range

0 . . . 40 mbar	5	7
0 . . . 60 mbar	5	8
0 . . . 100 mbar	5	9
0 . . . 160 mbar	6	0
0 . . . 250 mbar	8	2
0 . . . 400 mbar	8	3
0 . . . 0.6 bar	0	1
0 . . . 1 bar	0	2
0 . . . 1.6 bar	0	3
0 . . . 2.5 bar	0	4
0 . . . 4 bar	0	5
0 . . . 6 bar	0	6
0 . . . 10 bar	0	7
0 . . . 16 bar	0	8
0 . . . 25 bar	0	9
0 . . . 40 bar	1	0
-1 . . . 0 bar	3	1
-1 . . . 0.6 bar	3	2
- 1 . . . 1.5 bar	3	3
- 1 . . . 3 bar	3	4
- 1 . . . 5 bar	3	5
- 1 . . . 9 bar	3	6
- 1 . . . 15 bar	3	7

Pressure Connection

G1½ B male threaded stem (bottom) , stainless steel	8	7

Electrical Output Signal
4 - 20 mA 2-wire ..... B

Electrical Connection
Internal terminal strip ..... E

Supply Voltage
15 - 30 V DC ..... A

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