



Pressure transducers DMU 01

Part no. 31878

Pressure transducer standard version

benefits

- proven ceramic technology
- no mechanical ageing of the measuring cell
- no transmission liquid
- Versions for relative pressure and absolute pressure
- small temperature error

Application

For electronic pressure measurement in industrial applications (such as hydraulic and pneumatic applications as well as mechanical and plant engineering).

Description

Pressure transducers convert physical pressure into an electrical signal proportional to the pressure. DMU 01 is equipped with a piezo-resistive thick-film ceramic measuring cell.

Technical Specifications

Measuring accuracy

Deviation from the characteristic curve according to IEC 60770 – limit point calibration (non-linearity, hysteresis, repeatability)
 $< \pm 0.5 \% \text{ FSO}$

Measuring range

0/200 bar

Overpressure safety

$< 250 \text{ bar}$
 at least 2 x FS

Burst pressure

$< 400 \text{ bar}$
 at least 3 x FS

Operating temperature range

Medium: $-25/+125 \text{ }^{\circ}\text{C}$
 Ambient: $-25/+85 \text{ }^{\circ}\text{C}$
 Storage: $-40/+85 \text{ }^{\circ}\text{C}$

Temperature error band

$\leq \pm 0.3 \% \text{ FSO}/10 \text{ K}$ In compensated range $-25/+85 \text{ }^{\circ}\text{C}$

dynamic characteristics

Response time: $\leq 10 \text{ ms}$

Process connection

G $\frac{1}{2}$ B EN 837-1/7.3

material

Housing: Stainless steel 304

pressure connection: Stainless steel 304

diaphragm: ceramic (Al_2O_3 96 %)

Seal: FKM (Viton)

Supply voltage

DC 8 – 32 V

Output signal

2-wire, 4–20 mA

Load

$R_{\max} = [(UB - UB_{\min})/0.02 \text{ A}] \Omega$

Current input

< 25 mA

Options

- other connection threads
- fixed cable connection
- other output signals
- SIL 2 (IEC 61508/61511) 2-wire, for DMU 01 VM

electrical protection

short circuit proof and protected against reverse polarity

Electrical connection

Connector and junction box as per ISO 4400 (DIN 43650-A, EN 175301-803)

Degree of protection

IP 65 (EN 60529)

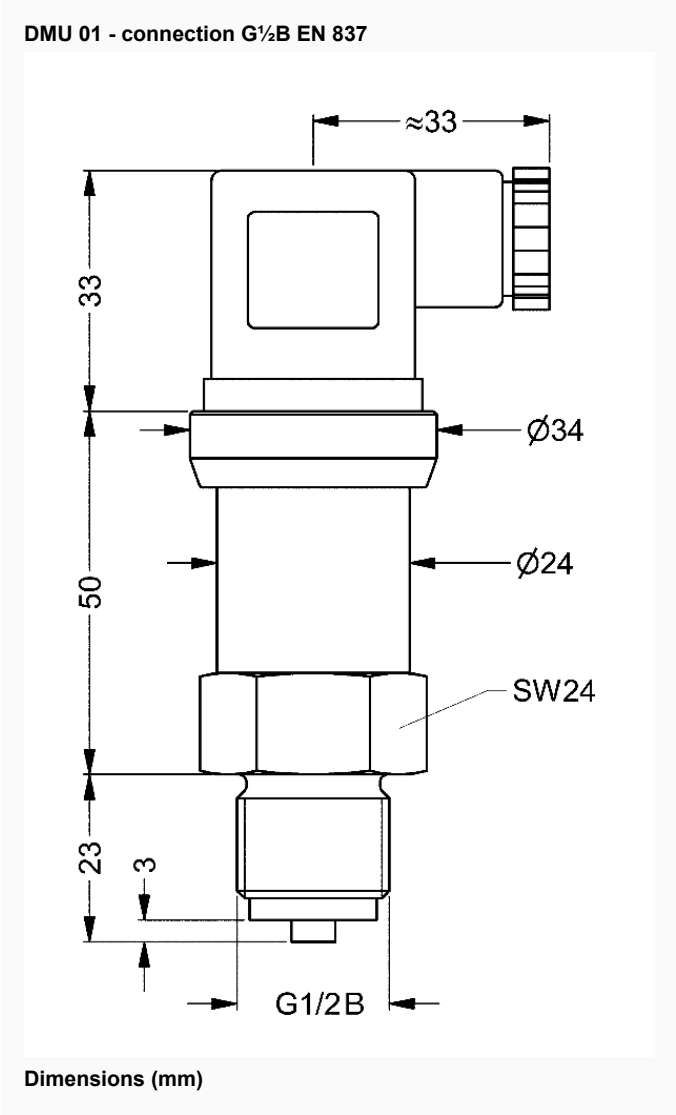
CE conformity

EMC Directive 2014/30/EU

RoHS Directive 2011/65/EU

Pressure Equipment Directive 2014/68/EU

Technical Drawings



Versions

Range	Measuring range	Type	Version	Part no.
	0/200 bar	DMU 01		31878

-  in-stock items
-  Non-stock items