



Electronic pressure switch EDS 10



Benefits

- 4-digit LED display
- Display can be rotated and tilted to any position
- 2 PNP switching outputs
- Accuracy $\leq \pm 0.35\%$ at 400 mbar and higher
- Measuring range selection from 100 mbar to 600 bar

Application

Main application areas comprise monitoring of gaseous or liquid media in plant and mechanical engineering. The pressure switch lends itself to pneumatic or hydraulic systems requiring high switching accuracy. The display can be rotated and tilted to practically any position so that the device can be used under adverse mounting conditions.

Description

The device uses a piezo-resistive stainless steel measuring cell. The 4-digit LED display of the pressure switch EDS 10 can be rotated by 330° and tilted by 300° . The switching points (switching hysteresis) are via the menu and two keys. The status of the switching outputs is indicated by an LED each. At a nominal pressure of ≥ 1 , the pressure switch is vacuum-tight without limitations.



Technical specifications

Measuring accuracy

Deviation from the characteristic curve according to IEC 60770 – limit point calibration (non-linearity, hysteresis, repeatability)

$> 0/0.4 \text{ bar} \leq \pm 0.35 \% \text{ FSO}$

$\leq 0/0.4 \text{ bar} \leq \pm 0.5 \% \text{ FSO}$

Long-term stability

$\leq \pm 0.3 \% \text{ FSO/Jahr}$

Display

4-digit, 7-segment, LED display, red,

Range -1,999/+9,999,

Visible area 22.5 x 10.5 mm,

4 LEDs for switchable pressure units (bar, mbar, psi, MPa),

Status indication switching output,

Switching output 1: green LED,

Switching output 2: yellow LED

Measuring range

See ordering table

Overpressure safety

$< 600 \text{ bar}$: At least 2 x FS

600 bar: 1,000 bar

Burst pressure

At least 3 x FS

Operating temperature range

Medium: $-40/+125 \text{ }^{\circ}\text{C}$

Ambient: $-40/+85 \text{ }^{\circ}\text{C}$

Storage: $-40/+100 \text{ }^{\circ}\text{C}$

Process connection

G $\frac{1}{2}$ (DIN 3852)

Material

Housing: Plastic (PA 6.6), highly impact-resistant and corrosion-resistant

Pressure connection: Stainless steel 316 L

Diaphragm: Stainless steel 316 L

Seal: FKM (Viton)

Supply voltage

DC 18 – 30 V

Current input

$< 40 \text{ mA}$

Switching outputs

2 open collector

(PNP), SIO mode,

max. 125 mA

Switching delay: 0 to 50 s

Repeatability: $\leq \pm 0.1 \% \text{ FSO}$

Switching cycles: $> 100 \times 10^6$

Switching frequency: Max. 200 Hz

Electrical connection

Connector M12 x 1, 4-pin, Metal

Degree of protection

IP 67 (EN 60529)

CE conformity

EMC Directive 2014/30/EU

RoHS Directive 2011/65/EU

Pressure Equipment Directive 2014/68/EU (module A)

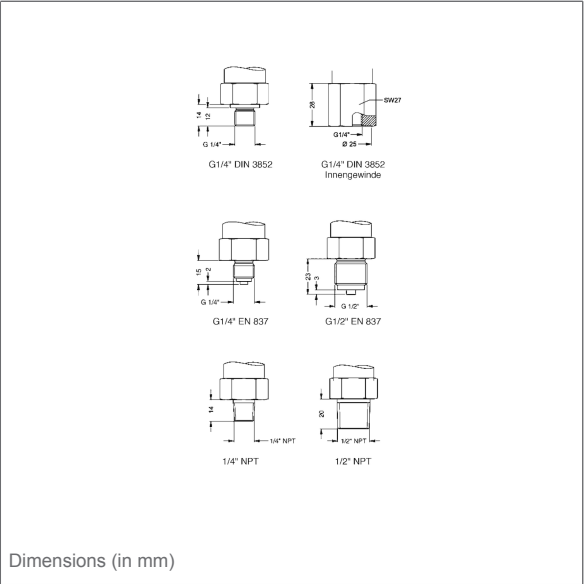
Options

- Other process connections
- Seal material (EPDM)
- Other switching and analogue outputs



Technical drawings

EDS 10 - process connections



Versions

	Pressure type	Measuring range	Part no.
Pressure switches EDS 10	Relative pressure	-1/0 bar	33405R01100011
Pressure switches EDS 10	Relative pressure	-1/+1.5 bar	33405R01102011
Pressure switches EDS 10	Relative pressure	-1/+3 bar	33405R01103011
Pressure switches EDS 10	Relative pressure	-1/+5 bar	33405R01104011
Pressure switches EDS 10	Relative pressure	0/0.1 bar	33405R01007011
Pressure switches EDS 10	Relative pressure	0/0.16 bar	33405R01008011
Pressure switches EDS 10	Relative pressure	0/0.25 bar	33405R01009011
Pressure switches EDS 10	Relative pressure	0/0.4 bar	33405R01010011
Pressure switches EDS 10	Relative pressure	0/0.6 bar	33405R01108011
Pressure switches EDS 10	Relative pressure	0/1 bar	33405R01109011
Pressure switches EDS 10	Relative pressure	0/1.6 bar	33405R01110011
Pressure switches EDS 10	Relative pressure	0/2.5 bar	33405R01111011
Pressure switches EDS 10	Relative pressure	0/4 bar	33405R01112011
Pressure switches EDS 10	Relative pressure	0/6 bar	33405R01113011

Blue part no. = in-stock items



	Pressure type	Measuring range	Part no.
Pressure switches EDS 10	Relative pressure	0/10 bar	33405R01114011
Pressure switches EDS 10	Relative pressure	0/16 bar	33405R01115011
Pressure switches EDS 10	Relative pressure	0/25 bar	33405R01116011
Pressure switches EDS 10	Relative pressure	0/40 bar	33405R01117011
Pressure switches EDS 10	Relative pressure	0/60 bar	33405R01118011
Pressure switches EDS 10	Relative pressure	0/100 bar	33405R01119011
Pressure switches EDS 10	Relative pressure	0/160 bar	33405R01120011
Pressure switches EDS 10	Relative pressure	0/250 bar	33405R01121011
Pressure switches EDS 10	Relative pressure	0/400 bar	33405R01122011
Pressure switches EDS 10	Relative pressure	0/600 bar	33405R01123011
Pressure switches EDS 10	Absolute pressure	0/0.4 bar	33405A01010011
Pressure switches EDS 10	Absolute pressure	0/0.6 bar	33405A01108011
Pressure switches EDS 10	Absolute pressure	0/1 bar	33405A01109011
Pressure switches EDS 10	Absolute pressure	0/1.6 bar	33405A01110011
Pressure switches EDS 10	Absolute pressure	0/2.5 bar	33405A01111011
Pressure switches EDS 10	Absolute pressure	0/4 bar	33405A01112011
Pressure switches EDS 10	Absolute pressure	0/6 bar	33405A01113011
Pressure switches EDS 10	Absolute pressure	0/10 bar	33405A01114011
Pressure switches EDS 10	Absolute pressure	0/16 bar	33405A01115011
Pressure switches EDS 10	Absolute pressure	0/25 bar	33405A01116011
Pressure switches EDS 10	Absolute pressure	0/40 bar	33405A01117011
Pressure switches EDS 10	Absolute pressure	0/60 bar	33405A01118011
Pressure switches EDS 10	Absolute pressure	0/100 bar	33405A01119011
Pressure switches EDS 10	Absolute pressure	0/160 bar	33405A01120011
Pressure switches EDS 10	Absolute pressure	0/250 bar	33405A01121011
Pressure switches EDS 10	Absolute pressure	0/400 bar	33405A01122011
Pressure switches EDS 10	Absolute pressure	0/600 bar	33405A01123011

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