

Electronic pressure switch EDS 10

Industrial electronic pressure switch with rotatable/tiltable LED display



Application

For monitoring gaseous or liquid media in plant and mechanical engineering. Suitable for pneumatic and hydraulic systems that require high switching accuracy.

Measurement principle

Piezoresistive stainless-steel measuring cell. The display can be rotated by 330° and tilted by 300° for flexible mounting and viewing.

Key benefits

- 4-digit red LED display with selectable pressure units: bar, mbar, psi and MPa.
- Display can be rotated and tilted to suit difficult installation positions.
- 2 PNP switching outputs in SIO mode.
- Accuracy up to $\leq \pm 0.35\%$ FSO for ranges above 0/0.4 bar.
- Pressure ranges from 100 mbar up to 600 bar.

Technical specifications

Measuring accuracy	$> 0/0.4$ bar: $\leq \pm 0.35\%$ FSO; $\leq 0/0.4$ bar: $\leq \pm 0.5\%$ FSO
Long-term stability	$\leq \pm 0.3\%$ FSO/year
Display	4-digit, 7-segment red LED; display range -1,999 to +9,999; visible area 22.5 x 10.5 mm
Overpressure safety	< 600 bar: at least 2 x FS; 600 bar: 1,000 bar
Burst pressure	At least 3 x FS
Medium temperature	-40 to +125 °C
Ambient temperature	-40 to +85 °C
Storage temperature	-40 to +100 °C
Standard process connection	G1/2 (DIN 3852)
Housing	Plastic PA 6.6, impact-resistant and corrosion-resistant
Pressure connection / diaphragm	Stainless steel 316 L / Stainless steel 316 L
Seal	FKM (Viton); EPDM optional
Supply voltage	DC 18-30 V
Current consumption	< 40 mA
Switching outputs	2 open collector outputs (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	M12 x 1, 4-pin metal connector
Degree of protection	IP67 (EN 60529)
Conformity	EMC 2014/30/EU; RoHS 2011/65/EU; Pressure Equipment Directive 2014/68/EU (Module A)

EDS 10 - available measuring ranges

Current manufacturer range / part-number table

Relative pressure versions		
Pressure type	Range (bar)	Part no.
Relative pressure	-1/0	33405R01100011
Relative pressure	-1/+1.5	33405R01102011
Relative pressure	-1/+3	33405R01103011
Relative pressure	-1/+5	33405R01104011
Relative pressure	0/0.1	33405R01007011
Relative pressure	0/0.16	33405R01008011
Relative pressure	0/0.25	33405R01009011
Relative pressure	0/0.4	33405R01010011
Relative pressure	0/0.6	33405R01108011
Relative pressure	0/1	33405R01109011
Relative pressure	0/1.6	33405R01110011
Relative pressure	0/2.5	33405R01111011
Relative pressure	0/4	33405R01112011
Relative pressure	0/6	33405R01113011
Relative pressure	0/10	33405R01114011
Relative pressure	0/16	33405R01115011
Relative pressure	0/25	33405R01116011
Relative pressure	0/40	33405R01117011
Relative pressure	0/60	33405R01118011
Relative pressure	0/100	33405R01119011
Relative pressure	0/160	33405R01120011
Relative pressure	0/250	33405R01121011
Relative pressure	0/400	33405R01122011
Relative pressure	0/600	33405R01123011

Absolute pressure versions		
Pressure type	Range (bar)	Part no.
Absolute pressure	0/0.4	33405A01010011
Absolute pressure	0/0.6	33405A01108011
Absolute pressure	0/1	33405A01109011
Absolute pressure	0/1.6	33405A01110011
Absolute pressure	0/2.5	33405A01111011
Absolute pressure	0/4	33405A01112011
Absolute pressure	0/6	33405A01113011
Absolute pressure	0/10	33405A01114011

Absolute pressure	0/16	33405A01115011
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Ordering and connection options

Configurable options listed in AFRISO catalog data



Pressure type	R = Relative; A = Absolute (from 0.4 bar and higher)
Output option 01	2 x PNP, SIO mode
Output option 02	2 x NPN, SIO mode
Output option 11	4-20 mA analogue output + 1 x PNP, SIO mode
Output option 12	4-20 mA analogue output + 1 x NPN, SIO mode
Process connection 01	G1/2 (DIN 3852)
Process connection 02	G1/2B (EN 837-1)
Process connection 03	G1/4 (DIN 3852)
Process connection 04	G1/4B (EN 837-1)
Process connection 05	G1/4 (DIN 3852), female thread
Process connection 06	1/2-14 NPT
Process connection 07	1/4-18 NPT
Seal 1	FKM
Seal 3	EPDM

Source note: technical values and current part numbers were compiled from AFRISO product pages and manufacturer catalog/datasheet information accessed on 25 Sep 2026.