

Pressure Transmitter - Series

SME

Small-Size Mini-Design

Pressure Range 0...30 bar or 0... 400 bar (0...3 MPa or 0...40 MPa)
Output 0,5...4,5 V 3 wire
0,5...4,5 V rat. 3 wire
Operating temperature -20°C to 85°C (optional -40°C to 125°C)

Resistant to pressure peaks
Shockproof and vibration-proof
Protection Class: DIN EN 60 529 – IP 65
Wetted Materials Sensor: Stainless-steel

Construction

- Piezo-resistive, vacuum-proof,
Stainless steel diaphragm with
Pressure range resistor (Poly-Si-on SiO₂)
- Case: Stainless steel
- Port configuration M 10*1 *)
- Electrical connection: cable or locking plug *)
- Total error 0,5% F.S.
- Mixed signal ASIC
- Weight ca. 20 g

Application / Possibles Uses

- Hydraulic Systems
- Industrial Robots
- Process Control

Description

The dimensions of this pressure transmitter are remarkable length 50 mm and diameter housing 12 mm or 15 mm. With a weight of only 20 g applications requiring such product features are supported. The pressure transmitters ADZ-SME-30.0 or SME 40.0 contain only few active constructional elements, such as the sensor element, a signal-processing ASIC. Calibration takes place electronically, so that the Pressure transmitters display a comparably small total error and are stable in the long term. The hermetically welded thin film-measuring cell ensures a high degree of long-term resistance to leakage and stability. The ASIC is a programmable precision CMOS ASIC with EEPROM data storage and analogue signal path, which is suitable for an extended operating temperature range. The special steel membrane is completely vacuum-tight, burst-proof and can be used with all standard media in hydraulics, pneumatics, environmental technology, process technology, semi-conductor technology and automotive engineering, in as far as they are compatible with special steel. This thereby covers use in standard applications in mobile hydraulics and in other areas of application. Upon request, a test certificate according to DIN ISO 9001 : 2000 is supplied.



*) others on request

Technical Information		Type ADZ-SME-30.0				Type ADZ-SME-40.0		
Measuring range (bar) standard pressure ranges *)	bar MPa	5 0,5	10 1	15 1,5	30 3	160 16	250 25	400 40
Overrange Protection (bar) *)		2 x rated pressure						
Bursting pressure (bar) *)		3 x rated pressure						
Pressure type		Relative pressure						
Port configuration *)		M10*1 Hex SW 11						
Diameter housing		15 mm				12 mm		
Remarkable length		< 50 mm						
Materials Used		no O-ring , no silicone oil						
Wetted Materials Sensor		Stainless-steel 17-4 PH, SUS 304 or 630						
Materials of casing								
Weight (g)		20 g						
Material Plug		Special plug - Type PHR-3						
Electrical Parameters								
Output signal *)		0,5...to 4,5 V rat.				0,5 V4,5 V		
Operating voltage Uv		5 V				12...30 V DC		
Electrical Connection *)		- Cable or Ribbon Cable with special plug - Binder plug Serie 705						
Linearity error at RT (% FS) (BFSL) **)		± 0.5 F.S. Total error						
Ambient Values								
Reproducibility stability per year, permitted								
- Ambient temperature (° C)		-40...+ 85 ° C						
- Media temperature (° C)		-40...+ 90 ° C						
- Storage temperature (° C)		-40...+ 125 ° C						
Electromagnetic compatibility DIN EN 55022 and DIN EN 61000-4-3		testing according						
Resistance to shock IEC 68-2-32		testing according						
Vibration resistance IEC 68-2-6 and IEC 68-2-36		testing according						

*) Others on request

**) Integral linearity deviation (F S = Full Scale ; B F S L = Best Fit Straight Line)

Order code	Series	Pressure	Electrical Connection	Port Configuration/ Pressure Fittings
		Pressure Range 6 bar	Cable or plug *)	M 10*1 **)
Expl. ADZ – SME-30	0,5...4,5 V ratiometrisch	.0006	*)	
Expl. ADZ – SME-40	0,5...4,5 V	.100 (100bar)	*)	



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