

PRESSURE TRANSMITTER

"Industry-Standard"

Pressure range: to 0...+4,000 bar
Output: 0...10 V
Ambient temperature -40 °C to +105 °C
Media temperature: to +125 °C

- Resistant to pressure peaks
- Shockproof- and vibration-proof
- Insensitive to temperature shocks
- Protection system IP 65 according to DIN EN 60 529
- Parts and casing with contact to measuring material of CrNi steel

CONSTRUCTION

- Special steel membrane
- Poly-Si- on SiO₂ (thin film resistance)
- Operating temperature -40 °C to +105 °C
- Class: 0.5% standard (optional 0.25 %)
- Mixed signal ASIC

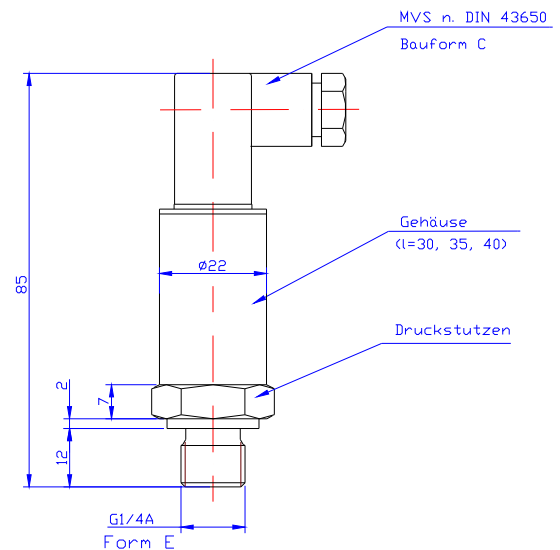
APPLICATION

- Pneumatics
- Hydraulics
- Air Conditioning + Heating
- Testing Technology
- Industrial Robots
- Process Control

DESCRIPTION

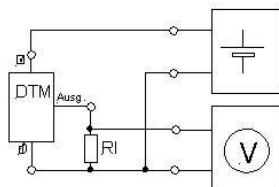
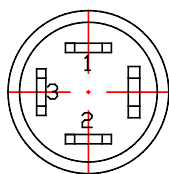
The ADZ-SML-20.0 pressure transmitters contain only a small number of active components, such as the sensor element, a signal processing ASIC and a U/I converter circuit. Calibration takes place electronically, so that the pressure transmitters display a comparably small total error and are stable in 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, extremely 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. The great exactness and the robust, compact structure guarantee a broad range of possible uses in industry. On the basis of the combinability of different mechanical and electronic connections, a variety of different pressure transmitters is offered. Upon request, a test certificate according DIN ISO 9001 or DKD is supplied.



- Subject to alteration -

Technical Information		Pressure Transmitter SML-20.0							
Measuring range (bar) standard pressure ranges *)	0.6	1.6	2.5	4	6	10	16	25	40
	60	100	160	250	400	600	1,000	1,600	2,000
Overload range (bar) *)	2 times								
Bursting pressure (bar) *)	3 times								
Pressure type	Relative pressure								
Pressure connection *)	G1/4 " form E Standard (Optionally, different pressure connections available)								
Materials Used Materials of parts with contact to measuring medium: Materials of casing:	No o-ring , no silicone oil Stainless-steel 17-4 PH								
Weight (g)	50 g								
Electrical Parameters Output signal *) Operating voltage U _v recommended max. Load resistor R _L Response time (10...90 %) Z	0 to 10 V 12 to 32 V ≥ 5 kΩ < 1 ms								
Insulating resistance at 50 V	100 M Ω								
Electrical Connection *)	- Standard design device plug DIN EN 175 301-803 - Others on request -> see overview								
Protective system according to DIN EN 60 529	IP 65 and according to plug system								
Linearity error at RT (% F.S.) (B.F.S.L.) **)	± 0,5 max. (optional 0,25 ****)								
Ambient Values									
Reproducibility stability per year, permitted - Ambient temperature (°C) - Media temperature (°C) - Storage temperature (°C)	-40...+105 °C -40...+150 °C -40...+125 °C								
Total error ***) max ± ****)	-40 °C...-20 °C		-20 °C...+85 °C			+85 °C...+100 °C			
	3,0 % typ. <± 2,0 %		1 % typ. <± 0,7 %			2,5 % typ. <± 1,5 %			
Electromagnetic compatibility EMV and ESD Testing according to DIN EN 55022 and DIN EN 61000-4-3	25 V/m								
Resistance to shock -proof Testing according to IEC 68-2-32	1 m (free-fall onto steel plate)								
Vibration resistance Testing according to IEC 68-2-6 and IEC 68-2-36	20 g								



Pressure transmitter with voltage output
voltage measurement across the load resistor

Order code	Series	Pressure	Plug Connection	Thread Type/ Pressure Connection
-	Basic type	Measuring range 6 bar	DIN EN 175 301-803	G 1/4 " Form E Standard
Bsp.:ADZ-SML-	20.0	.0006	S 3	G 40

*) Others on request

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

****) The total error includes non-linearity, hysteresis, repeatability, and temperature influence

*****) Customer-specific special design with optional better exactness on request

- Subject to alteration -

