



KELLER

PIEZORESISTIVE PRESSURE TRANSMITTERS

FOR INDUSTRIAL APPLICATIONS / COMPACT VERSION

These piezoresistive silicon pressure transmitters are produced on the new KELLER automatic brazing lines, making possible the mass production of high quality pressure transmitters at low cost. This new technology allows the crevice-free construction of the pressure port without using seals or O-rings. In the brass sensor line (Series 21 MC), a steel insert and a nickel diaphragm is brazed into a brass housing. In the steel sensor line (Series 21 SC), all parts are of stainless steel (AISI 316 L). The header with the silicon pressure sensor and glass lead-through pins is welded to the steel insert underneath the oil filling. The tiny chip-on-board amplifier (weight \approx 1 gram) with the KELLER-specific "PROGRES" circuit is mounted directly on the glass feed-through pins. It is then encapsulated in silicone compound for humidity and vibration protection.

Note: The cable version of the transmitters has exceptionally high RFI protection.

SPECIFICATIONS

	Pressure Ranges (FS)						
PA Sealed Gauge (zero at 1 bar abs.)	5	10	20	50	100	200	bar
Overpressure	10	20	40	100	200	300	bar
Output (ratiometric@Excitation)	2-Wire	3-Wire	4-Wire				
Excitation	4...20 mA	0,5...4,5 V@5 V	0...100 mV@10 V				
	8...28 V	4,75...5,25 V	5...15 V				
Total Accuracy at RT	<u>SERIES 21 SC</u>	<u>SERIES 21 MC</u>					
T.C. of Zero	$\pm 0,5\%$ FS	$\pm 1\%$ FS					
T.C. of Sensitivity	$\pm 0,03\%$ FS / °C	$\pm 0,04\%$ FS / °C					
Long Term Stability, typ.	$\pm 0,03\%$ / °C	$\pm 0,04\%$ / °C					
Operating Temperature	< 0,2% FS	< 0,5% FS					
Compensated Temperature Range	-25...+80 °C						
Protection	0...+50 °C						
Vibration	IP 65						
Shock	20 g (5...2000 Hz, max. amplitude ± 3 mm), according to IEC 68-2-6						
CE-Conformity	20 g (11 ms)						
Insulation	EN 50081-1, EN 50082-2						
Pressure Port	> 100 MΩ / 500 V						
Cable / Connector	G 1/4" male, Eolastic®-seal						
Weight (Connector Version)	2 m / mPm (option DIN 43650)						
	≈ 60 g						

SERIES 21 MC / 21 SC



Series 21 MC

Brass Sensor Head, Steel Body



Series 21 SC

Steel Sensor Head, Steel Body

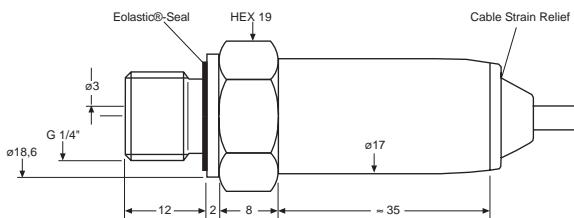


ELECTRICAL CONNECTIONS

Connector	2-Wire	Cable	3-Wire	Cable	4-Wire	Cable
1	OUT/GND	white	GND	green	GND	white
2			+OUT	white	+OUT	red
3	+VCC	brown	+VCC	brown	+VCC	black
4 (E)					-OUT	blue

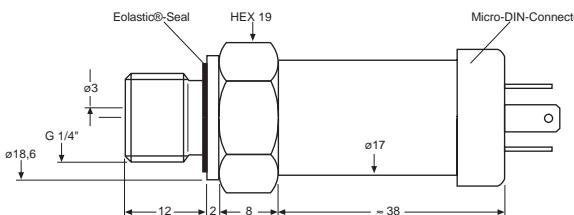
Series 21 MC
Series 21 SC

Cable Version



Series 21 MC
Series 21 SC

Connector Version



Subject to alterations

6/02