



KELLER

PIEZORESISTIVE PRESSURE TRANSMITTERS FOR INDUSTRIAL APPLICATIONS

SERIES 21 M / 21 S 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 M), a steel insert and a nickel diaphragm is brazed into a brass housing. In the steel sensor line (Series 21 S), 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 ≈ 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
	<u>2-Wire</u>		<u>3-Wire</u>		<u>4-Wire</u>		
Output (ratiometric@Excitation)	4...20 mA		0,5...4,5 V@5 V		0...100 mV@10 V		
Excitation	8...28 V		4,75...5,25 V		5...15 V		
	<u>SERIES 21 S</u>				<u>SERIES 21 M</u>		
Total Accuracy at RT	± 0,5%				± 1%		
T.C. of Zero	± 0,03% FS / °C				± 0,04% FS / °C		
T.C. of Sensitivity	± 0,03% / °C				± 0,04% / °C		
Long Term Stability, typ.	< 0,2% FS				< 0,5% FS		
Operating Temperature	-25...+80°C						
Compensated Temperature Range	0...+50°C						
Protection	IP65						
Shock	20g sinusoidal 11 msec.						
Vibration	5...2000 Hz/10g in X/Y/Z-direction						
CE-Conformity	EN 50081.1, EN 50082.2						
Insulation	> 10MΩ / 500 V						
Pressure Port	G 1/4" male, Elastoc®-seal						
Cable / Connector	2 meters / mPm (option DIN 43650)						
Weight (Connector Version)	60 grammes						



Series 21 M

Brass Sensor Head, Steel Body

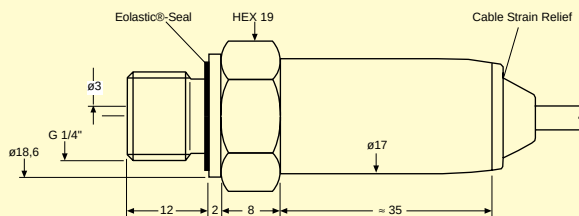
Series 21 S

Steel Sensor Head, Steel Body



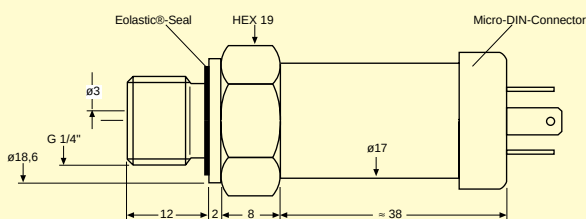
Series 21 M Series 21 S

Cable Version



Series 21 M Series 21 S

Connector Version



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

Subject to alterations

3/00

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