



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 \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

PA Sealed Gauge (zero at 1 bar abs.) Overpressure	Pressure Ranges (FS)					
	5	10	20	50	100	200
	bar		bar			
	10		20		300	
	bar		bar			
	2-Wire		3-Wire		4-Wire	
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	
	SERIES 21 S			SERIES 21 M		
Total Accuracy at RT	$\pm 0,5\%$			$\pm 1\%$		
T.C. of Zero	$\pm 0,03\%$ FS / °C			$\pm 0,04\%$ FS / °C		
T.C. of Sensitivity	$\pm 0,03\%$ / °C			$\pm 0,04\%$ / °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	> 10M Ω / 500 V					
Pressure Port	G 1/4" male, Eolastic®-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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