



# PIEZORESISTIVE PRESSURE TRANSDUCERS

## SERIES 11

### ABSOLUTE- AND GAUGE PRESSURE

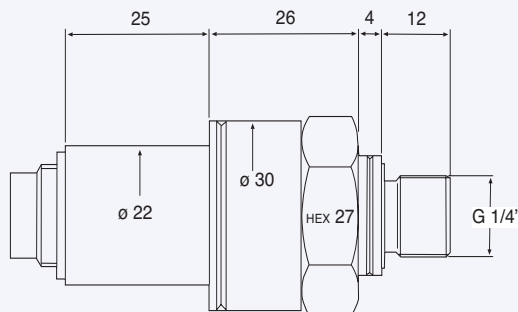
The KELLER Series 10 sensor is mounted with the compensation resistors in a stainless steel housing. The sensor floats on an O-ring seal and is therefore free of any housing stresses. It is particularly suited in connection with  $\mu$ P-based signal processing. Transducers can be ordered with the coefficients of a mathematical model ready for integration with a  $\mu$ P-based system. Error Bands of 0,1%...0,01 %FS are achievable, depending on the temperature ranges.

Whilst the Series 11 fulfils all the classical functions expected of a mV-transducer, it is often used in development of larger OEM projects to test the performance of the KELLER OEM sensors. As a special order, any OEM sensor from Series 3 to 10 can be ordered in such a housing, with or without integrated compensation resistors. The customer can then verify that the chosen OEM sensor is suitable for the application.

Specifications	(Excitation I = 1 mA)								
	Ranges (FS)								
Version PAA, PA, PR-11	0,1	0,2	0,5	1	2	5	10	20	bar
Overpressure	2,5	2,5	2,5	2,5	3	7	15	30	bar
Output Signal nominal	20	35	60	100	175	175	175	175	mV
Version PA-11	50	100	200	400	600	1000			bar
Overpressure	75	150	300	500	700	1100			bar
Output Signal nominal	175	175	175	175	175	175			mV
PR-11 (negative range)	-0,1	-0,2	-0,5	-1					bar

**PAA:** Absolute. Zero at vacuum    **PA:** Sealed Gauge. Zero at atmospheric pressure (at calibration day)    **PR:** Vented Gauge. Zero at atmospheric pressure    **PR:** For negative pressure versus ambient, same (negative) signal as positive ranges. By changing +OUT and -OUT, signal is positive.

Excitation	Constant current, nominal 1 mA (max. 4 mA)	
Bridge Resistance	3500 $\Omega$ nominal	
Linearity + Hysteresis + Repeatability	< 0,5 %FS (0,1 to 0,2 %FS with reduced FS signal)	
Zero Offset	< 5 mV, fine adjustment of Zero with R5 $\geq$ 20 $\Omega$	
Compensated Temperature Range	Standard	Option
	0...50 $^{\circ}$ C	-10...80 $^{\circ}$ C
- T.C. of Zero	< 0,0125 mV / $^{\circ}$ C	< 0,025 mV / $^{\circ}$ C
- T.C. of Sensitivity	< 0,01% / $^{\circ}$ C	< 0,025% / $^{\circ}$ C
Long Term Stability	< 0,25 mV typ.	< 0,50 mV typ.
Electrical Connection	Binder 723	
Material in Contact with Media	Stainless Steel AISI 316L, Seal: Viton <sup>®</sup>	
Protection / Weight	IP40, IP 65 with cable / 180 g	
Options	Other materials and connections on request	



#### Electrical Connections

	Plug	Cable
-IN	1	White
+OUT	2	Red
+IN	3	Black
-OUT	4	Blue
-IN	5	Yellow

#### Schematic of plug

