Pressure Sensor with Ceramic Sensing Element

measuring • monitoring • analyzing

SEN-9601

- Measuring Range: -14.5...0 PSIG to 0...6000 PSIG
- Max. Media Temperature: 185 °F
- Accuracy: ± 0.5% / ± 0.75%
- Output: Voltage or Current
- Connection: 1/4" NPT, 1/2" NPT, G 1/4, or G 1/2
- OEM Targeted Product

KOBOLD companies worldwide:

AUSTRALIA, AUSTRIA, BELGIUM, BULGARIA, CANADA, CHINA, CZECHIA, FRANCE, GERMANY, GREAT BRITAIN, HUNGARY, INDIA, INDONESIA, ITALY, MALAYSIA, MEXICO, NETHERLANDS, PERU, POLAND, REPUBLIC OF KOREA, RUSSIA, SPAIN, SWITZERLAND, THAILAND, TUNISIA, TURKEY, USA, VIETNAM

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Description

The KOBOLD SEN-9601 model is an electronic pressure transmitter with a ceramic sensor commonly used for air, industrial & technical gases, water, and oil. It is designed to be installed in gas distribution plants, on bottles, on refrigerators, on compressors, on vacuum pumps, in hydraulics, and in high pressure water plants. It is ideally suited to be used for general industrial applications, gas stocking, machine production, light or heavy pneumatics industry, the refrigeration industry, or in welding & vacuum applications.

Technical Data

Ranges

Standard:	-30...0" HG to 0...6000 PSIG
Compound:	-30" Hg/15 PSIG to -30" HG/150 PSIG
Accuracy:	≤ ± 0.5% of Full Scale[1] for all Ranges, Except Range "P025" (at ≤ ± 0.75% of Full Scale[1])
Linearity (BFSL):	≤ ± 0.25 % of Full Scale for all Ranges, Except Range "P025" (at ≤ ± 0.5% of Full Scale)
Repeatability:	≤ 0.1 % of the Full Scale, According to EN 61298-2

Output Signal

Deviation of Zero:	≤ ± 0.5 % of Span, Typical; ≤ ± 0.75 % of Span, Max.
Thermal Drift:	Between 32 °F and 176 °F; 1 % of Span, 2.5 % of Span, Max.[3]
Long Term Drift:	≤ 0.1% of Span, According to EN 61298-2

Temperature

Process Media:	-13...212 °F
Ambient:	-13...185 °F
Storage:	-22...185 °F
Output Signals:	4...20 mA, 0...5 V_{DC}, 0...10 V_{DC}, 1...5 V_{DC}, 0.5...4.5 Ratiometric V_{DC}
Response Time:	<4 ms
Emission/Immunity:	According to EN 61326, (Group 1-Class B; Industrial Applications)
Process Connection:	316L, Hole ø 2.5 mm
Sensor:	Ceramic in Al2O3
Case:	316L, Vented up to 200 PSIG
Gasket (Sensor):	FKM
Electric Connection:	DIN 43 650A w/Cable Gland (Standard) DIN 43 650A w/1/2" Conduit (Optional)
Protection Degree:	IP 65 According to IEC 529 / EN 60529[2]
Weight:	0.27 lb

[1] Including linearity, hysteresis, repeatability, and output signal deviation of zero at the reference conditions described in standard EN 61298-1

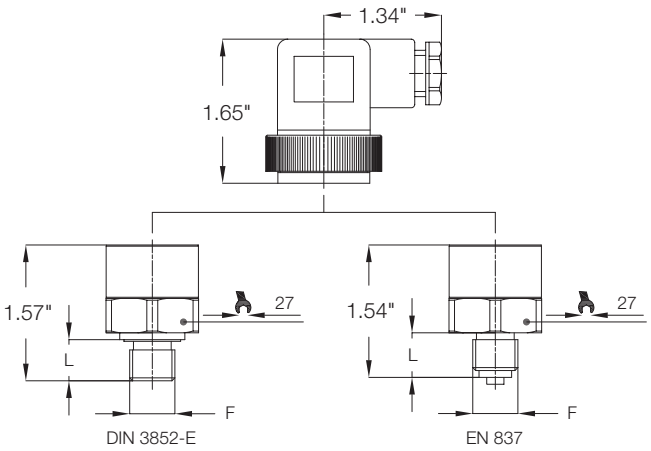
[2] With properly assembled electric connection

[3] ± 0.5% of Span for Range "P025"

Ranges	Overpressure
-30...150 inHg/PSIG	290 PSIG
-30...100 inHg/PSIG	174 PSIG
-30...60 inHg/PSIG	116 PSIG
-30...30 inHg/PSIG	72.5 PSIG
-30...15 inHg/PSIG	72.5 PSIG
-30...0 inHg	72.5 PSIG
0...15 PSIG	72.5 PSIG
0...30 PSIG	72.5 PSIG
0...60 PSIG	116 PSIG
0...100 PSIG	174 PSIG
0...150 PSIG	290 PSIG
0...200 PSIG	464 PSIG
0...300 PSIG	580 PSIG
0...500 PSIG	1160 PSIG
0...600 PSIG	1160 PSIG
0...1000 PSIG	1740 PSIG
0...1500 PSIG	2900 PSIG
0...2000 PSIG	4640 PSIG
0...3000 PSIG	7250 PSIG
0...4000 PSIG	7250 PSIG
0...5000 PSIG	8700 PSIG
0...6000 PSIG	8700 PSIG

Other ranges available upon request.

Dimensions

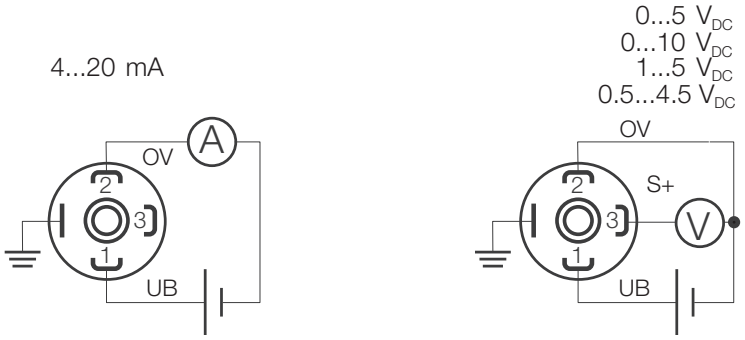


F[1]	L
..A.. = G ½, male EN 837	0.79"
..B.. = G ¼, male EN 837	0.51"
..E.. = G ¼, male DIN 3852-E	0.51"
..F.. = ½ - 14 NPT	0.79"
..G.. = ¼ - 18 NPT	0.51"

[1] Torque 20...30 Nm

No responsibility taken for errors; subject to change without prior notice.

Wiring Diagram



Order Details: (Example: **SEN-9601 0 P085 G 0**)

Model	Output	Measuring Range	Mechanical Connection	Options
SEN-9601..	**..0..** = 4 - 20 mA, 2-wire (Standard) **..1*..** = 0 ... 5 V_{DC} (8 ... 30 V_{DC}) **..2*..** = 0 ... 10 V_{DC} (14 ... 30 V_{DC}) **..3*..** = 0.5 ... 4.5 V_{DC} Ratiometric (5 V_{DC} ±10%) **..4*..** = 1 ... 5 V_{DC} (8 ... 30 V_{DC})	**..H375*..** = -30...150 inHg/PSIG **..H365*..** = -30...100 inHg/PSIG **..H360*..** = -30...60 inHg/PSIG **..H345*..** = -30...30 inHg/PSIG **..H325..** = -30...15 inHg/PSIG **..H315..** = -30...0 inHg **..P025..** = 0...15 PSIG **..P045..** = 0...30 PSIG **..P060..** = 0 ... 60 PSIG **..P065..** = 0 ... 100 PSIG **..P075*..** = 0 ... 150 PSIG **..P080[1)]..** = 0...160 PSIG **..P085..** = 0 ... 200 PSIG **..P090..** = 0 ...300 PSIG **..P100..** = 0 ... 500 PSIG **..P105*..** = 0 ... 600 PSIG **..P115..** = 0 ... 1000 PSIG **..P126*..** = 0 ... 1500 PSIG **..P130..** = 0 ... 2000 PSIG **..P140..** = 0 ... 3000 PSIG **..P146..** = 0 ... 4000 PSIG **..P150..** = 0 ... 5000 PSIG **..P160*..** = 0 ... 6000 PSIG	**..A*..** = G ½, Male **..B*..** = G ¼, Male **..E*..** = G ¼ DIN 3852-E, Male **..G..** = ¼" NPT, Male (Standard) **..F*..** = ½" NPT, Male	**..0** = DIN 43 650A Electrical Connector with Cable Gland (Standard) **..C** = DIN 43 650A Electrical Connector with 1/2" NPT Conduit (Optional)

***** Minimum order quantity = 20 pieces per item (identical model code)

[1)] Measuring range P080 (0...160 PSIG) is only available with Output "0", Mechanical Connection "G", and Option "0". i.e.// SEN-96010P080G0

Output Signal* Code	4 ... 20 mA 0	0 ... 5 V_{DC} 1	0 ... 10 V_{DC} 2	0.5 ... 4.5 V_{DC} Ratiometric 3	1 ... 5 V_{DC} 4
No. of Wires	2	3	3	3	3
Load Max. (Ω)	$R_L \leq$ (Vin-8)/0.02	$R_L \geq$ 5 KΩ	$R_L \geq$ 10 KΩ	RL ≥ 4.5 KΩ	RL ≥ 5 KΩ
Supply: +Vin (V_{DC})	8 ... 30	8 ... 30	14 ... 30	5 ±10%	8 ... 30
Absorbed Current (mA)	< 25	< 10	< 10	< 10	< 10

*All output signals are provided protected against short circuit and polarity inversion. Insulation tension 500 V_{DC}.

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