

Quantum Gauge DPP | SmartSENS



Pirani & Piezo Vacuum Sensor

EXPECT THE UNEXPECTED

Patent-pending Quantum Pirani that extends the measurable vacuum range by up to 3 decades combined with trusted rough vacuum piezo technology delivers a range of 9 decades. All at an attractive price point



IDEAL FOR CLEAN PROCESSES

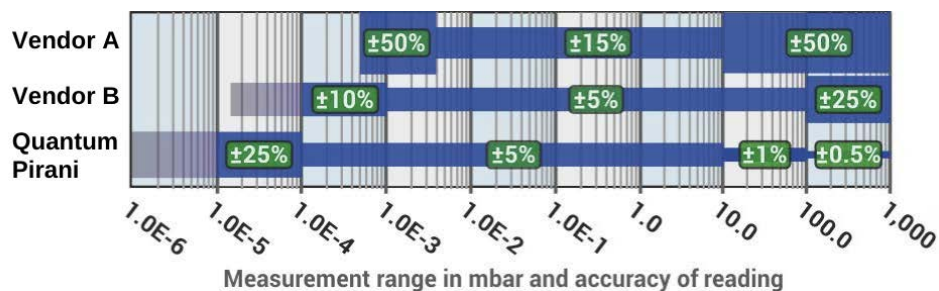
1000 Torr down to 10^{-6} Torr with no ion gauge required. Includes integrated baffle to protect and extend life of sensor and 1 solid state relay for process control

VISUAL PRESSURE INDICATOR

Multi-color LEDs to indicate pressure range. Includes a bright yellow overpressure indicator to help you avoid system damage. This is very useful when not using a display controller



Drop in replacement for MKS 901, 925 & 910 gauges with accuracy 10^{-5}



Quantum SmartSENS

Why is the Quantum Gauge Series a Quantum Leap for Vacuum Measurement?

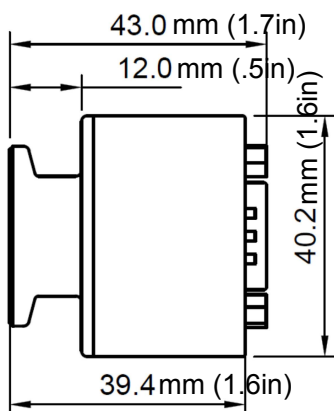
The Quantum Gauge Series is a quantum leap in simplicity and range for vacuum gauging. Smart pairings of sensor technologies that deliver what people really need | All-in-one, highly accurate wide range vacuum measurement at a cost-effective price point.

- Piezo + patent-pending Pirani technology with advanced signaling processing, which extends measurement range up to 3 decades. Read 9 decades of vacuum (10^{-6} to 1000 Torr) all with one gauge.
- 0-10 Volts analog out for PLC integration
- Includes one solid state relay for process control
- Drop in replacement for MKS901, MKS925, MKS910 with same electronic signaling and same connections

APPLICATIONS

- Mass spectrometers
- Scanning electron microscopes
- Furnace heat treatment
- PVD coating of glass, optics, tools, etc.
- Refrigeration service and manufacturing
- Semiconductor processing

KF16 Vacuum Interface



SPECIFICATIONS

Measuring Range

7.5×10^{-6} to 1000 Torr

Measurement Accuracy (Torr)

From	To	Accuracy
7.5×10^{-6}	7.49×10^{-5}	50%
7.5×10^{-5}	5.99×10^{-1}	14%
6.0×10^{-1}	$7.43 \times 10^{+1}$	5%
$7.5 \times 10^{+1}$	1000 Torr	2%

Power Supply

Supply voltage

12-30 VDC

Output Signal

STD OUT $P(u) = 10(u-6.5)$

Power consumption

240 mW (Max)

Reverse polarity protection

Yes

Overvoltage protection

Yes

Internal fuse

100 mA (Thermal recoverable)

Solid state relay contact rating

250 mA, 50 VDC / VAC peak

Connector Pin Out

RS232 9-Pin D-Sub

Wetted Materials

Vacuum exposed materials (media wetted)

304 SS, Kovar, glass, silicon, nickel, aluminum, SiO_2 , Si_3N_4 , Al_2O_3 , gold, Viton, low out-gassing epoxy resin, solder, R04305, vitreous silica

Enclosure

SS 1.4307 / AISI 304L stainless steel / Aluminum

Process leak tightness

$<1 \cdot 10^{-9}$ mbar·l/s