Quantum Gauge
DPP|SmartSENS

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Scientific Measurement & Control

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

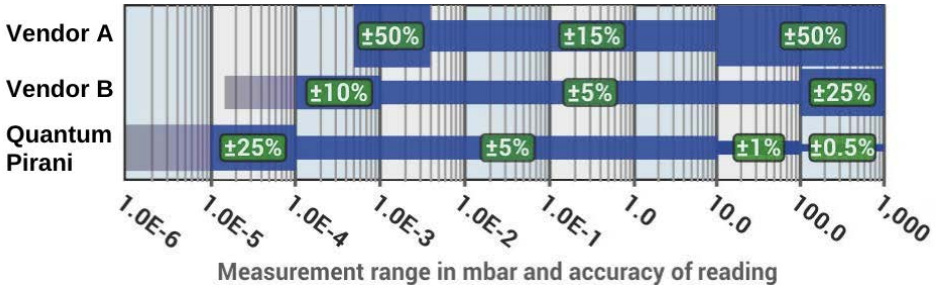
1000 Torr down to 10-6 Torr with no ion gauge required. Includes integrated baffle to protect and extend life of sensor and 1 solid state relay for process control

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

0-10 VDC ON/OFF RoHS RS-232 RS-485

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



Measurement range in mbar and accuracy of reading

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Quantum SmartSENS

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

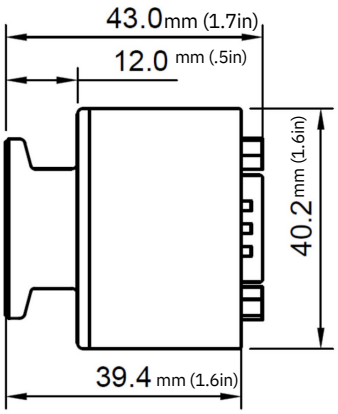
The Quantum Gauge Series is a quantum leap in simplicity and range for vacuum gauging. Smart pairings of sensor technologies that deliver what people really need | All-in-one, highly accurate wide range vacuum measurement at a cost- effective price point.

- 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

7.5x10 $^{-6}$ to 1000 Torr

Measurement Accuracy (Torr)

From	To	Accuracy
7.5 x 10^{-6}	7.49 x 10-5	50%
7.5 x 10^{-5}	5.99 x 10	14%
6.0 x 10	7.43 x 10+1	5%
7.5 x 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

<1·10^{-9} m bar·l/s

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