

Quantum Gauge DPCP | TriSENS

High Vacuum + Process Control +
Overpressure Indication All in One

DEEP & WIDE MEASUREMENT

Highly accurate direct pressure measurement down to 10 microns (.01 Torr) combined with high vacuum measurement down to 10^{-6}

CONTAMINATION CONTAINMENT

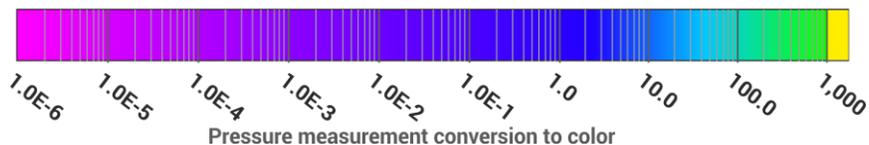
Integrated baffle helps protect sensor elements from particulate contamination and increase its longevity

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



Quantum Pirani, Capacitive, Piezo



QuantumTriSENS

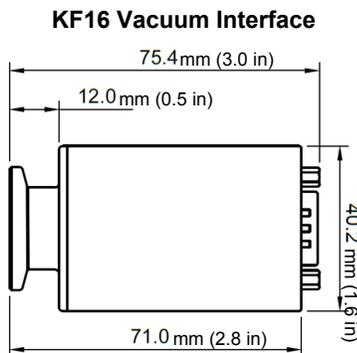
Why is the Quantum Gauge Series a Quantum Leap for Vacuum Measurement?

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.

- Deep & wide measuring range of 9 decades delivered by an all-in-one gauge that combines pirani, capacitance manometer, and piezo technology
- 6 decades of gas independent measurement
- Reliable solid-state relay for process control
- 0-10V for PLC Input
- LED Color Pressure Indicator

APPLICATIONS

- PVD Coating Equipment
- Freeze Drying
- Load lock control
- Mass Spectrometry
- Scanning electron microscopy
- Semiconductor
- Research
- Vacuum pump service
- Heat treatment, Vacuum furnaces



SPECIFICATIONS

Measuring Range

1×10^{-5} to 1333 mbar (7.5×10^{-6} to 1000 Torr)

Measuring principle 1×10^{-6} to 1×10^{-3} mbar

MEMS Pirani thermal conductivity

Measuring principle 5×10^{-3} to 3.99 mbar

Capacitance manometer

Measuring principle 6 to 1333 mbar

MEMS piezo diaphragm

Measurement Accuracy (Torr)

From	To	Accuracy
7.5×10^{-6}	7.5×10^{-5}	50%
7.5×10^{-5}	7.5×10^{-3}	20%
7.5×10^{-3}	1000 Torr	3%

Solid state relay contact rating

250 mA, 50 VDC / VAC peak

Power Supply

Supply voltage

12-30 VDC

Output signal

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

Power consumption

350 mW [Max]

Reverse polarity protection

Yes

Overvoltage protection

Yes

Internal fuse

100 mA (Thermal recoverable)

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, RO4305, vitreous silica

Enclosure

SS 1.4307 / AISI 304L stainless steel / Aluminum

Process leak tightness

$< 1 \cdot 10^{-9}$ mbar·l/s