

Quantum Gauge DCP | DuoSENS

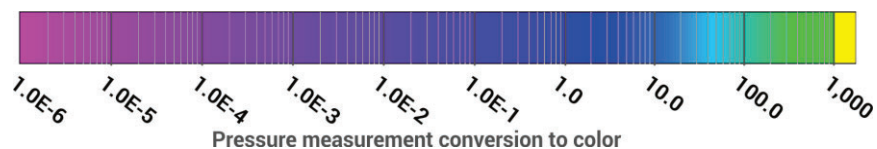
Capacitive Piezo | Highly Accurate
Process Control Delivered Simply

5 DECADES OF GAS INDEPENDENT VACUUM MEASUREMENT

- Gas independent vacuum measurement includes integrated baffle to help avoid particulate contaminations
- Replace multiple capacitance manometers with one
- Blends capacitance manometer with piezo for the widest direct pressure measurement under \$1500
- Visual multi-color LED to indicate pressure range with bright yellow overpressure indicator to help avoid system damage



DuoSENS Capacitive Piezo



Quantum DuoSENS

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.

- Wide range highly accurate vacuum measurement across 5 decades of vacuum | 1000Torr - 0.01 Torr (+/- 3%)
- Reliable solid-state relay for process control
- 0-10V for simple pressure communication to PLC
- Integrated baffle to protect internal sensor from particulate contamination to help extend the life of the sensor
- LED Color Pressure Indicator

APPLICATIONS

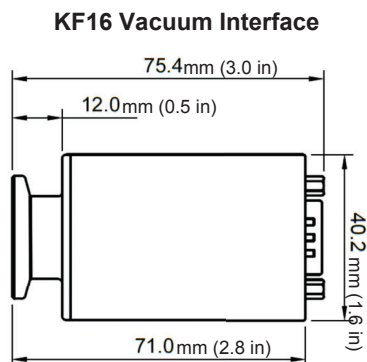
- Distillations
- Processing applications
- Freeze-drying
- PVD coating, glass and optics
- Load lock applications
- Semiconductor
- Refrigeration

DuoSENS Advantages

This DuoSENS sensor represents a "quantum" leap in simplicity and usability for processing and distillation applications.

Instead of using a rough sensor and a traditional narrow range capacitance manometer, the Quantum DCP DuoSENS allows you to do all that direct pressure measurement in a small environmentally-friendly, low-power package.

DigiVac
Capacitive
Piezo



SPECIFICATIONS

Measurement and Accuracy Range: 0.01 to 0.099 Torr: +/- 3%, 0.100 Torr to 9.99 Torr: +/- 2%, 10 Torr to 1000 Torr: +/- 3%

Supply voltage
12-30 VDC

Power consumption
350 mW (max)

Reverse polarity protection
Yes

Overvoltage protection
Yes

Internal fuse
100 mA (Thermal recoverable)

Operating ambient temperature
-20 to +50 °C

Media temperature
-20 to +50 °C

Storage ambient temperature
-20 to +80 °C

Bake-out temperature (non-operating)
+80 °C

Temperature compensation
+10 to +50 °C

Solid state relay set point range
7.5x10⁻³ to 1,000 Torr

Solid state relay contact rating
250 mA, 50 VDC / VAC peak

Solid state relay approvals
UL Recognized: File E76270

Protection rating
EN 60529/A2:2013: IP40

Wetted Materials

Vacuum exposed materials (media wetted)
304 SS, Kovar, glass, silicon, Al₂O₃, gold, Viton, solder, R04305, vitreous silica

Enclosure
SS 1.4307 / AISI 304L stainless steel / Aluminum

Process leak tightness
<1.10⁻⁸ bar·l/s