

EPACO™ EXPLOSION PROTECTION CERAMIC PRESSURE DETECTOR

DESCRIPTION

The Fike ceramic explosion pressure detector is designed to continuously measure the pressures inside the protected hazards. The extremely fast response time of the pressure detector allows the Explosion Protection Controller (EPC) to take more than 4,000 samples every second. Using the same instantaneous speed, this information is then processed to determine if the pressure change is that of a developing explosion.



*Fike P/N 29945022-S SST
Fike P/N 02-11294 Hastelloy*

FIKE SERVICES

Fike expertise creates the right explosion protection solution for your specific application:

- Engineers and application specialists familiar with your application and applicable codes
- Product testing and hazard analysis

FEATURES

Application Specific Integrated Circuit (ASIC) technology provides the detector with high accuracy through compensation of linearity and temperature errors

Ceramic pressure sensing element

Continuous pressure measurement, dynamic and threshold functionality and fast response time

No oil filled diaphragm

BENEFITS

Faster response times, reduced vulnerability to temperature fluctuations, enhanced accuracy

Allows the detector to have high overload protection, corrosion resistance and long-term stability with reduced vulnerability to process and handling damage

Enhanced system stability with adjustable pressure validation to accommodate processes. Multiple functionality reduces costs.

Decreases sensitivity to orientation, shock and vibration

STANDARD SPECIFICATIONS

- Sensing principle: Capacitive Ceramic
- Pressure: ± 300 mbarg (± 4.35 psig) (others ranges available on request)
- Overpressure: 4 bar (60 psi)
- Deflagration overpressure: 12 bar (175 psi) *
- Vacuum resistance: full vacuum
- Pressure connection: G 1"
- Material:
 - Wetted: Ceramic (Al_2O_3), SST 1.4404 (316 SST), Viton O-ring (Optional: Kalrez or Teflon)
 - Housing: SST 1.4404 (316L SST, optional HC-276), Aluminum
- Power supply: 12 to 30 VDC
 - FM Approved: 20.4 to 26.4 VDC
- Temperature range:
 - Process, maximum: $+102^\circ C$ ($+215^\circ F$)
 - Cleaning incidental: $+150^\circ C$ ($+300^\circ F$)
 - Ambient: -20 to $+60^\circ C$ (0 to $+140^\circ F$)
 - Storage: -20 to $+60^\circ C$ (0 to $+140^\circ F$)
- Output: 4 – 20 mA

APPROVALS

- FM Approved: Explosion Suppression System
- FM Hazardous
 - Class I, Div 1, 2, Group A, B, C, D
 - Class II, Div 1, 2, Group E, F, G
 - Class III, Div 1, 2
- CE
- ATEX Approved
 - II 1/2 D/G EEx ia IIC T6
- NEMA 4X / IP65
- CSA Approved LR 159130

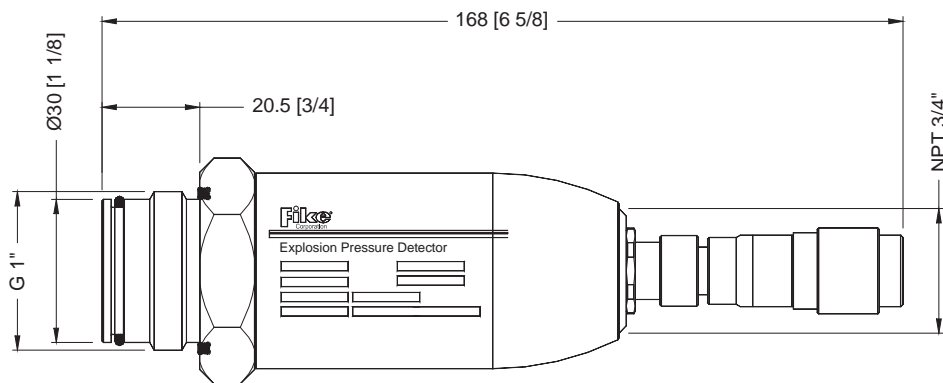
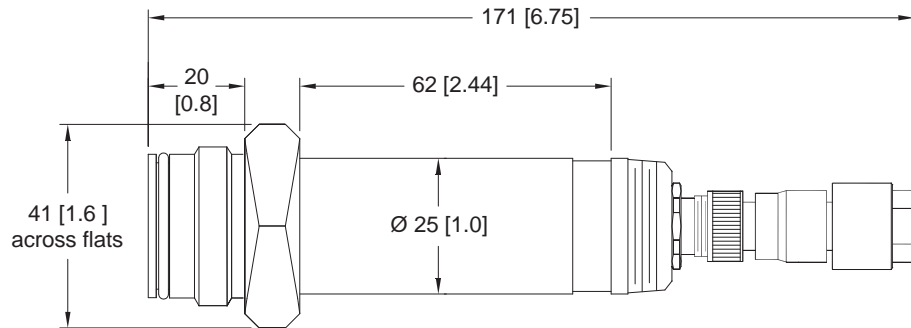
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STANDARD SPECIFICATIONS (cont.)

- Response time: less than 1 msec.
- Accuracy: $\pm 0.9\%$ of span with EPC
- Electrical Connection: M12x1 screw type connector (suitable for cables 4 to 6 mm (0.16 to 0.25 in) (OD))
- Enclosure: NEMA 4X / IP 65
- Humidity (non-condensing): 80% RH maximum

Dimensions



Note: Dimensions are nominal

