

CERAMIC EXPLOSION PRESSURE DETECTOR

DESCRIPTION

The Fike Ceramic Pressure Detector is designed to continuously measure the pressures inside the protected volumes. The extremely fast response time of the ceramic detector allows the Explosion Protection Controller (EPC) to take more than one million samples every second.

The ceramic detector utilizes a ceramic pressure sensing element. This ceramic element allows the detector to have high overload protection, corrosion resistance and long-term stability. With ASIC technology, the detector is provided with high accuracy through compensation of linearity and temperature errors.

FEATURES AND BENEFITS

- Ceramic pressure element
- Continuous pressure measurement
- Dynamic and threshold functionality
- Extremely fast response time
- High overpressure rating
- Corrosion resistance
- Long term stability



APPROVALS:

- CE
- ATEX
- IECEx (only for dust)
- EAC
- FM (only for hybrid)
- CSA (only for hybrid)



SPECIFICATIONS

Type	Dust (D – black cable)	Hybrid (G/D – blue cable)
	2994502301-C-S	2994502201-C-S
Sensing principle	Capacitive Ceramic	
Detection range	± 300 mbarg	
Overpressure	4 bar	
Deflagration overpressure	12 bar	
Vacuum resistance	Full vacuum	
Process connection	G 1"	
Wetted parts ¹	Ceramic (Al ₂ O ₃), 1.4404 (316 SST)	
	EPDM E7502 o-rings - FDA approved	
Housing	1.4404 (316L SST), Aluminium	
Temperature range	Process	-20°C to +125°C
	Cleaning Incidental	+150°C
	Ambient	-20°C to +65°C
	Storage	-40°C to +80°C
Power supply	12 to 30 VDC	
Current consumption	100 mA max	
Output signal	4 – 20 mA current loop	
Response time ²	less than 1 ms	
Electrical connection	Fixed shielded and vented cable 4 x 0.22mm ² Black or Blue - Ø 6.3mm (length 3m)	
Approvals	CE IP67	
	ATEX II 1/2 D Ex ta IIIC T85...T130°C Da/Db IP67	ATEX II 1/2 G Ex ia IIC T6...T4 Ga/Gb ATEX II 1/2 D Ex ta IIIC T85...T130°C Da/Db IP67
	EAC	EAC
	IECEX INE 15.0001X	-
	-	FM approval HLC 7/04
	-	CSA 05 1668999/X

(1) Contact factory for version with FKM14-70.

(2) Response time definition: from pressure measurement to EPC controller output change.

MOUNTING

The Fike Ceramic Detector is available in several different mounting configurations. Mounting accessories are also available to reduce product build-up, avoid impingement and aid with installation. Contact your nearest Fike office or representative for more details.