DATA SHEET

IREx Optical Detector

DESCRIPTION

Fike IREx Optical Detectors use a photodiode to measure the wavelength of radiant light that passes in front of the polished sapphire lens. It responds to radiant energy caused by flames and is used to activate Fike explosion isolation and suppression systems.

APPROVALS:

- FM- Class II, III, Div 1, Group E, F, G
- CE
- ATEX
- - II 1/2 G Ex ia II C T 6
- - II 1/2 D Ex tD A20 IP67 T110°C
- CSA - Class II, III, Div 1, Group E, F, G

FEATURES

- Wide viewing angle allowing for enhanced process monitoring coverage
- Flush sapphire glass polished lens provides durable, precision optics
- High overpressure and temperature rating
- Corrosion resistant wetted parts
- Titanium nitride coating available for increased wear resistance of wetted parts
- Optional air purge mounting flange to protect lens from dust impingement

PART NUMBERS

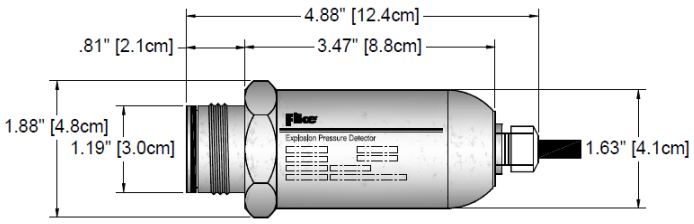
Part Number	Description
29998431-S	Standard IR Optical Detector
29998441-S	TiN Coated IR Optical Detector
02-15854*	Intrinsic Safety Barrier, Single Channel, 4-20mA with LED Power Indicator
02-15855*	Intrinsic Safety Barrier, Dual Channel, 4-20mA with LED Power Indicator

*Consult Fike IR Optical Detector Manual E06-086 to determine if Intrinsic Safety Barrier is required.

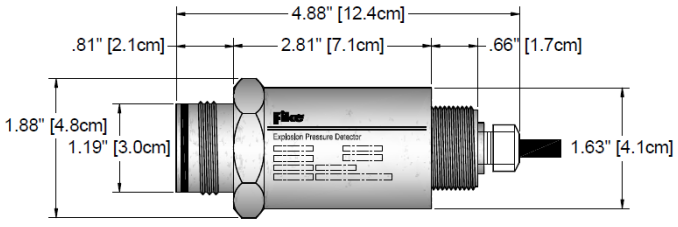
SPECIFICATIONS

Detection Range	400nm – 1,100nm (peak 850nm)
Deflagration Overpressure	174psig (12barg)
Detector Protection Degree	IP65 (FM & CSA) IP67 (ATEX); NEMA 4X and Type 4X
Wetted Parts	Sensor head 1.4404 (316L SST); available with titanium nitride (TiN) coating for increased wear resistance Sapphire glass polished lens Inner O-ring: FKM Viton Outer O-ring: Silicon
Housing	1.4404 (316L SST) and Aluminum
Temperature Range	Process: -20 to 80°C (-4 to 176°F) Ambient: -20 to 65°C (-4 to 149°F) Storage: -20 to 65°C (-4 to 149°F)
Output Connection	Shielded cable 5 x 0.25mm^2
Power Supply	18-30 VDC
Nominal Current	Stand-By (no alarm) < 10mA Alarm < 30mA
Power Consumption	20mA max
Output Signal	1 x electronic switch (alarm contact) Contact rating = 28 volts, 100 mA, 700 mW (ATEX); 18 volts, 20 mA, 360mW (FM & CSA) 4 – 20 mA current loop

DIMENSIONS



IR Detector with Cover



IR Detector without Cover