

EXPLOSION-PROOF SMOKE DETECTOR

FLS-02EC-H2



Description

The **FLS-02EC-H2** is reliable Explosion-Proof Smoke Detector certificated with FM / IECEx / ATEX approval.

The **FLS-02EC-H2** has division and zone explosion-proof ratings. The detector is a sensor using the scattered light, and it detects the scattering of light reflected by smoke inside chamber. There are light emitter (Infrared LED) and photo-diode inside, the former emits the light through the lens, and the latter detects the light scattered by smoke to detect the smoke in the hazardous area.

The **FLS-02EC-H2** is suitable in a hazardous area and also tolerates hydrogen explosion.

Applications

- Chemical plants
- Combustible storage facilities
- Munitions facility
- Volatile chemical storage
- Petroleum refineries
- Battery rooms
- Aerospace facility
- Offshore and onshore
- Engine rooms

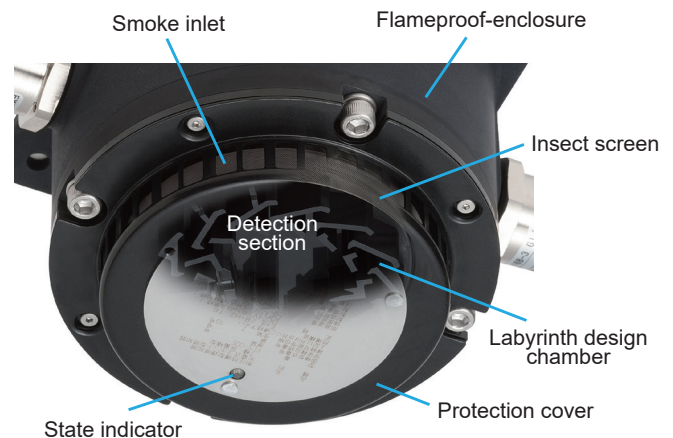
Features

- 6-wire type of operation
- 24VDC operation
- Accurate fire detection
- Intelligent photoelectric chamber
- Easy installation
- Programmable Logic Controller (PLC) Distributed Control System (DCS), integration with relay outputs
- Complete peace of mind

Specifications

Rating	DC24V, 5mA (Standby), 10mA(Alarm)
Range of the voltage	DC24V ± 10%
Alarm Level	1.8 to 3.1 %/ft
Status LED	Color: Red -Normal: Blinks once in 10 seconds -Alarm: Blinks once in 2 seconds -Trouble: Light out
Output Range	Alarm Relay: Form A, DC24V1A Trouble Relay: Form B, DC24V 1A
Temp. Range	Operating 0°C ~ +50°C Storage -20°C ~ +70°C
Humidity Range	30 to 85 %RH (No Condensation)
Dimensions	W136mm X D136mm X H100mm (See Figure 1)
Material	Aluminum alloy (ADC12)
Terminals	Wire: 0.2-2.5mm ² or AWG24-12 Terminal Board: See Figure2
Thread	M20(Option: NPT1/2inch)
Weight	Approx. 2.0kg (4.4lbs)
Manufactured by	Fenwal Controls of Japan, Ltd.
Country of origin	Japan

Structure of the detection unit



NOT TO BE USED FOR INSTALLATION PURPOSES.

Nittan reserves the right to make changes at any time without notice in prices, colours, materials, components, equipment, specifications and models and also to discontinue models.

■ Dimensions

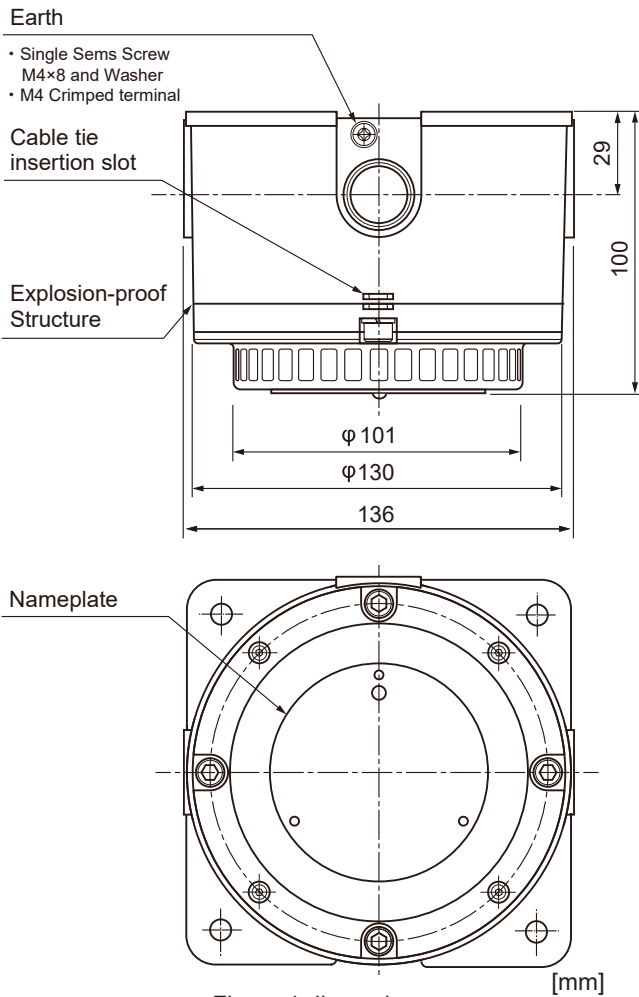


Figure 1 dimensions [mm]

■ Pin assignments of Terminal Board

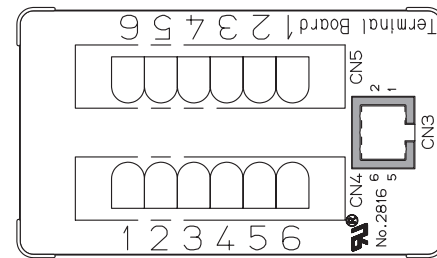


Figure 2 Terminal Board

Pin No.	Function
1	+24V
2	0V
3	Alarm contact-Normal Open
4	Alarm contact-Common
5	Trouble contact-Normal Close
6	Trouble contact-Common

■ Certifications

FM Certification



FM18US0151X

Class1, Division1, Group B, C, D T6
Ta=0°C to +50°C

Class1, Zone1, AEx db IIB+B+H2 T6 Gb
Ta=0°C to +50°C

IECEx Certification Standards



IECEx FMG 16.0040X

IEC60079-0:2011 (Ed:6.0)

IEC60079-1:2014-06(Ed:7.0)

Ex db IIB+H2 T6 Gb

ATEX Certification



FM16ATEX0107X

II 2G Ex db IIB+H2 6

0°C < Ta < +50°C

All specifications are subject to change without any notice.
For more information, contact with NITTAN.

NITTAN

54-5, 1-chome, Sasazuka,
Shibuya-ku, Tokyo 151-8535, Japan
TEL: +81-3-6407-9861 FAX: +81-3-5465-5077

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