



Spyglass™ Xtend (V)

Combined hydrogen and hydrocarbon flame detection



The Spyglass Xtend incorporates a new, specific algorithm designed to detect both hydrogen and hydrocarbon fires.

In dense industrial spaces, a hydrogen flame can spread to other equipment and start a fire involving hydrocarbon fuels. So it's vital to do more than just detect hydrogen flames.

The performance of Spyglass Xtend remains identical to that of Spyglass™ IR3-H₂. On the other hand, by using triple infrared technology, its performance is far superior to those of previous UV/IR technologies.

Triple infrared technology ensures complete immunity against false alarms or untimely faults that could be triggered by sun glare or torrential rain, thus guaranteeing reliable operation in outdoor environments.

Features

- Combined detection of hydrogen and hydrocarbon flames using triple infrared technology
- 5 selectable sensitivity levels
- Automatic or manual self-test to ensure optics are clean and nominal detector performance is maintained
- Heated optics to prevent condensation and frosting
- Universal outputs: Analogue 4-20 mA (Sink or Source), Relay for pre-alarm, alarm, fault
- HART® 7 - Enhanced configuration and diagnostic capabilities for preventive maintenance
- HD video output (optional) with real-time streaming and automatic video recording on events
- SIL 2, ATEX, IECEx, usFMc certification



Performance

Response Time	40ms Explosion or rapid burst, 7s Hydrogen plume from 0.97 m to 30 metres
Sensitivity	5 sensitivity ranges
Field of Vision	90° Horizontal, 80° Vertical
Built-in Self-Test	Automatic and manual

Electrical Specifications

Voltage	24 VDC nominal (18-32 VDC)
Consumption	120 mA, 180 mA with heating, with video option: 300 mA
Cable Entries	2 cable entries 3/4" NPT or M25x1.5
Wiring	1-2,5mm ² (14-17AWG)

Outputs

Relays	3 relays: Alarm & Auxiliary (NO); Fault (NC), SPST 2A at 30 VDC
Current Output	0-20mA (Discrete), 3-wire or 4-wire (insulated) (sink or source)
Digital	HART Rev 7.0 (Option)
Video	NTSC or PAL (Video option) VOE ONVIF profile S
Indication	Tricolour LED (green, yellow, red)

Mechanical Specifications

	Xtend	Xtend-V
Enclosure	Stainless steel, IP 66/68, NEMA 4X & 6P	
Dimensions	150x130x180mm	200x130x130mm
Weight Detector	3,0 kg	4,4 kg
Swivel Mounting Weight	1,5 kg	2,4 kg

Environmental Specifications

Temperature Range	Operation & storage: -55°C to +85°C
Humidity	Up to 99% RH, non-condensing

Certifications

ATEX, IECEX	II 2 G D Class I, Div. 1, Groups B, C et D ; T4
FMus & FMc	Class I, Zone 1, AEx/Ex db IIC T4 Gb
Functional Safety	SIL2 certified to IEC 61508:2010 High & Low demand
Performance	EN54-10, ANSI FM 3260

Warranty

5 years

Response Specifications

Fuel	Size	Distance m (ft)	Response Time (Sec)
n-Heptane	0,1m ²	55 (180)	3,3
Kerosen	0,1m ²	50 (164)	4,8
Jet Fuel	0,1m ²	45 (147)	5,1
Diesel	0,1m ²	50 (164)	5,6
Gasoline	0,1m ²	40 (131)	7,3
Methanol	0,1m ²	18 (59)	3,4
Wood	0,1m ²	20 (66)	6,9
LPG	Panache of 97,5 cm	31 (102)	3,7
Syngas	Panache of 97,5 cm	25 (82)	3,9
Methane	Panache of 97,5 cm	20 (66)	4,4
Hydrogen	Panache of 97,5 cm	30 (98)	4,0

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