MINERVA® MX

S271I+Intrinsically Triple Infra Red Flame Detector

Features:

- Unrivalled black body rejection over a wide range of source temperatures
- Triple waveband infrared "solar blind" detection for optimum false alarm immunity
- Discrimination of optical faults (dirty windows) from other faults in the built-in self test
- Selectable range up to 50 metres for a 0.1m2 n-heptane pan fire
- Very low power consumption enables up to 50 S271f+ units to be connected to a MINERVA® MX digital addressable loop, (use MX designer software tool)
- Ideal for retrofit application as can be used with a variety of existing cables

Triple Waveband InfraRed Flame Detectors

The MINERVA® S271f+ and S271i+ Triple IR Flame Detector is the latest addition to the well proven MINERVA® S200+ range of Solar Blind Advanced Flame Detectors. Like the other detectors in this range, this advanced flame detector is a multi-channel infrared flame detector with low power consumption and high false alarm immunity. It also incorporates the proven detection capability of the S100 and S200 flame detectors, which have had over 26,000 installations worldwide. It is currently available as flameproof or intrinsic safe version, fully approved by ATEX.

By incorporating an interface to the MX DIGITAL loop, the S271f+and S271i+ is fully compatible with the MINERVA® MX latest generation of advanced analogue addressable systems that have been designed to meet the exacting CEN standards that are increasingly being specified by system designers and installers around the world.

THORN SECURITY

The S271f+ and S271i+ in conjunction with the MINERVA® MX controller offers significant advantages over other IR or UV/IR detectors currently available:

- Significant savings in cabling costs can be achieved by connecting a large number of detectors to a single two-wire loop used for alarm signalling as well as powering of the detectors; this is made possible by the extremely low power consumption (perfect for retrofit application using existing cables)
- Flexible wiring and loop configuration arrangement including spur or ring, plus use of galvanic type isolators for I.S. , gives maximum flexibility to the system designer and simplifies installation
- The detector gives accurate reports of its status to the MX controller by means of a highly resilient digital protocol enabling timely and measured executive actions, as a response to a pre-alarm warning, a full detected alarm or a warning of window fault
- Large or multi-building installation can be easily covered with the same system by networking several MX controllers, giving the ability of gathering all critical site information in a single operation's control room
- Full compatibility on the same loop with addressable heat, smoke, and contact monitor inputs

Technical Specification

Mechanical

Detector Material	Stainless steel 316L
Dimensions	167mm x 67mm x 89mm
Weight	4.5 Kg
Metal Parts (external & internal)	Bright Stainless Steel to BS1449 Pt 2
Cable glands	2 x 20 mm
Connectors	12-way 2.5mm2 heavy duty terminal blocks

Electrical

Supply Voltage	Loop powered (max 40 Volt DC)
Quiescent current	Typical 500 micro amps
Alarm current	45 mA during signalling

Signalling

Digital loop powered, quantity of devices identified with MX designer software tool

Note: It is critical that this is comprehensively done, to ensure correct capacities are selected

Hazardous Area

Zones O (for IS unit) 1& 2, Group IIC	
Approvals	ATEX

Environmental

Operating temperature in hazardous areas	-25°C (-20forFlameproof model) to +80°C
Operating tempreture in non hazardous areas	-40°C to +80°C
Storage Temperature	-40°C to +80°C
Relative Humidity	95% RH continuous100% RH intermittent
Enclosure protection	IP66 and IP67

Performance

Range	0.1m2 n-heptane at 50m 0.4m2 n-heptane at 70m
Field of View	90°
Response Time	3, 6 or 12 seconds (Field selectable)
Sensitivity	3 range settings: - Normal – 25m - Extended – 50m - Reduced – 12.5m

Mounting Bracket

Weight	1.1 Kg
Material	Bright Stainless Steel to BS1449 Pt 2
Axial Rotation	50°
Elevation	67°
Fixings	Requires M8 stainless steel 316L bolts (template provided)

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