



MINERVA® MX

801F & 801FEx MXTechnology® Addressable Solar Blind InfraRed Flame Detectors

Features:

- Solar Blind for false alarm free operation
- Intrinsically safe or standard versions
- Fast response to flame
- Detect a 0.1m² fire at a range of 20m
- Automatic health check feature
- Discrete ultra low profile design
- Fits a standard MX detector base or functional base
- Integral alarm LED with 360 degree angle of view
- Use T110 infrared test source (With separate adaptor)
- Complies to EN54-10 for Flame Detectors

Standard or Intrinsically safe ATEX approved

The 801F and 801FEx point type flame detectors are part of the MXTechnology® range of digital addressable fire detectors. MXTechnology® incorporates heat, optical, ionisation and carbon monoxide detection. The 801F and 801FEx flame detectors present a cost effective solution to providing false alarm free flame detection for indoor applications.

Both the 801F and the 801FEx are full featured solar blind flame detectors for indoor use and boast a high degree of false alarm immunity. The standard unit is the 801F and it is designed for direct connection to the MX digital loop, employing the same detector base or functional base as other 800 series fire detectors.

The 801FEx is an intrinsically safe version intended for use in hazardous atmospheres and must be connected via an EX1800 interface and galvanic isolator. The detectors are designed to comply with EN/IEC 60079-0:2006, EN/IEC 60079-11:2007 and EN/IEC 61241-11:2006 for intrinsically safe apparatus. They are certified: ATEX code: Ex II 1 GD Cenelec code: Ex ia IIC T4/Ex iaD 20 T135°C

SPECIFICATIONS

Mechanical

Detector Material:	FR110 'BAYBLEND'
Dimensions (mm):	108 x 21.2
Weight: - 801F	74g
- 801FEX	110g

Electrical

Loop Voltage:	20 – 24 V (801FEx) 20 – 40 V (801F)
Quiescent current:	300 micro Amp typical
Alarm current:	3 mA typical

Intrinsic Safety Rating

Maximum Voltage for Safety (Ui):	28V
Maximum Current for Safety (Ii):	93mA
Maximum Power Input (Pi):	650mW
Equivalent Inductance (Li):	0
Equivalent Capacitance (Ci):	0

Hazardous Area

ATEX Certificate No:	Baseefa 03ATEX0422X
IECEX Certificate No:	IECEX BAS 07.0075X

Environmental

Operating temperature: -20°C to +70°C

Operation below 0°C is not recommended unless steps are taken to eliminate condensation and hence ice formation on the detector.

Storage Temperature: -40°C to +80°C

Relative Humidity: 90% RH continuous (non-condensing) and up to 99% RH intermittent (non-condensing)

Performance

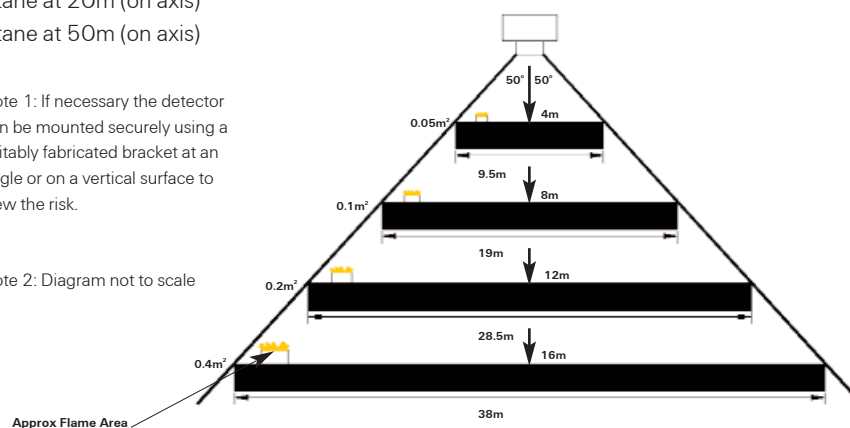
Range 0.1m² n-heptane at 20m (on axis)

0.4m² n-heptane at 50m (on axis)

Field of View 100°

Note 1: If necessary the detector can be mounted securely using a suitably fabricated bracket at an angle or on a vertical surface to view the risk.

Note 2: Diagram not to scale



Electromagnetic Compatibility

ESD:	to EN50130-4
Radiated Immunity:	to EN50130-4
Fast Transient:	to EN50130-4
Slow High Energy:	to EN50130-4
Conducted Immunity:	to EN50130-4
Emissions:	to EN61000-6-3

Mounting Bases

5B:	5" Universal Base
5BEX	5" I.S. Universal Base

Functional bases that provide relays, sounders and isolation can be used with the 801F but cannot form part of an intrinsically safe circuit.

Connections:	L -VE IN/OUT L1 +VE IN/OUT 801F Only R Remote LED -VE
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Ordering Information:

Stockcode	Description
516.800.006	801F MX I.R. Flame Detector
516.800.066	801FEx MX I.R. Flame Detector
	Intrinsically Safe
517.050.017	5B 5" Universal Base
517.050.018	5BI 5" Isolator Base
517.050.023	5BEX 5" Universal Ex Base
514.001.063	EXI800 MX I.S. Loop Interface
517.001.259	Pepprl & Fuchs KFDO-CS- Ex1.54 Galvanic Isolator
517.001.247	DX170 MTL5/7000 Enclosure
592.001.012	T110 IR Test Source
592.001.018	T110 Test Source Adapter