

MZX SensorLaser Pro

Fiber Optic Linear Heat Detection



The Zettler SensorLaser Pro is a fibre-optic linear heat alarm system which guarantees rapid and seamless fire detection as well as the highest false alarm safety, even in difficult and changing environmental conditions.

With the fiber optic measuring principle, accurate and location-specific recording of temperature along the sensor cable can be achieved. A temperature profile right across the entire line makes it possible to obtain precise details about the location and size of a fire

and about its dynamic propagation. ZETTLER SensorLaser Pro offers up to 4 channels of detection, monitoring up to 16km of cable per channel.

The MZX SensorLaser Pro Series is incredibly intuitive and flexible, with a fully integrated web server offering simple configuration via browser, one-click validation of compliance configuration settings, 2000 configurable alarm zones per channel and up to 98 integrated relay contacts.

Features

- Up to 4 channels of 16km
- 2000 alarm zones per channel
- Up to 98 integrated relay contacts
- Integrated web server
- 4.3" colour TFT display
- Flexible zone and alarm configuration
- 2000 alarm zones per channel
- State of the art IT Security standards
- EN and UL certified
- VdS approved
- ATEX and IECEx
- SIL2



Functional Specifications						
Instrument Option	R01	R02	R04	R06	R08	R10
Distance range ⁽¹⁾	1 km	2 km	4 km	6 km	8 km	10 km
Optical wavelength	1064 nm					
Minimum sampling interval	0.25 m					
Minimum spatial resolution	0.5 m					
Measurement time	1 - 30s			2 - 30s	3 - 30s	4 - 30s
Optical channels ⁽²⁾	1 (C01), 2 (C02) and 4 (C04)					
Available measurement modes	Single-ended; Double-ended (Loop, incl. fiber break recovery, not available with channel option C01)					

Interfaces & Power	
Optical connector / sensor fiber	E2000 APC 8° 50/125 μm graded index MM (OM2/OM3/OM4), ITU-T G.651.1
User Interface	Web browser interface TFT-Display 480x272 pixel 4 front LEDs for power, measuring, fault and alarm 3 rear LEDs for power OK, SD card removable, laser ON
Computer interface	2x Ethernet (LAN 10/100/1000), USB A, USB B
Data storage capacity	512 MB internal, USB HDD/SSD, SD/SDHC card slot
Communication protocol	SCPI, Option P01 : Modbus TCP
Relays	Volt-free contacts, 30 V DC, 1 A Included: 4 inputs and 10 outputs Option SRO : 44 additional outputs Option SRR : 88 additional outputs Option TMx : Resistor configuration based on customer requirements
Power	10-30V DC, 22W typical at 20°C ambient temperature, 40W max
Housing & Environmental	
Housing	19" Rack Mount (DR) Wall Mount (DW) ⁽³⁾
Operating temperature range	-10 to +60°C
Storage temperature range	-40 to +80°C
Operating humidity range	95% r.h. non-condensing
Dimensions (H x W x D)	88 x 420 x 420 mm 473 x 420 x 105 mm
Weight	5 to 7 kg 7 to 9 kg

(1) Max. optical loss budget (one way) R01 = 3 dB, R02 = 4 dB, R04 = 6 dB, R06 = 8 dB, R08 = 10 dB, R10 = 12 dB - certifications may require a lower max. permissible loss value of the sensor.

(2) Instrument option R08 and R10 combined with C04 are certified to local protection application EN54-22 with response classes BN, CN, DN, EN. In this case, for room protection application EN54-22, LHD – N4517A is required.

(3) Wall mount IP66 Housing options: A4500A (with window) with operating temp. range -20° to +60°C

Safety		
Laser safety class	Class 1M laser product IEC 60825-1: 2014; EN 60825-1: 2014; FDA 21CFR1040.10+Laser Notice no.50	
Certifications		
Fire Certifications	EN54-22 (VdS) / UL 521 / ULC S531	
Safety Integrity Level (SIL) 2	IEC 61508	
ATEX	Option EX0 : (Steal armored sensor cable)	 I (M1) II (1) G II (1) D
	Option EX1 : (Any sensor cable)	 I (M2) II (2) G II (2) D
IECEx	Option EX0 : (Steal armored sensor cable)	[Ex op is pr Ma] [Ex op is pr IIC T6 Ga] [Ex op is pr Da]
	Option EX1 : (Any sensor cable)	[Ex op is Mb] [Ex op is IIC T6 Gb] [Ex op is Db]

Part Numbers:

580.400.001	MZX SensorLaser Pro 1 Km Range (R01)
580.400.002	MZX SensorLaser Pro 2 Km Range (R02)
580.400.003	MZX SensorLaser Pro 4 Km Range (R04)
580.400.004	MZX SensorLaser Pro 6 Km Range (R06)
580.400.005	MZX SensorLaser Pro 8 Km Range (R08)
580.400.006	MZX SensorLaser Pro 10 Km Range (R10)
580.400.007	MZX SensorLaser Pro Sensor Channel 1- 1 x E2000 8° APC Optical Connector (CO1)
580.400.008	MZX SensorLaser Pro Sensor Channel 2- 2 x E2000 8° APC Optical Connector (CO2)
580.400.009	MZX SensorLaser Pro Sensor Channel 4- 4 x E2000 8° APC Optical Connector (CO4)
580.400.010	19" Rack Indoor Housing- 2 Height Units / 7 kg- Integrated Display
580.400.011	Wall Mount Housing- 420 x 473 x 106 mm / 9 kg- Integrated Display
580.400.017	Outdoor Housing with Window- 600 x 465 x 150 mm / 13 kg (empty)
580.400.027	MZX SensorLaser Pro ATEX/IECEx Zone 0, 20, Ma- Approval for sensor cable run in Ex Zone 0
580.400.028	MZX SensorLaser Pro ATEX/IECEx Zone 1, 21, Mb- Approval for sensor cable run in Ex Zone 1