LHD N45-Series – N4587A

Fiber Optic Linear Heat Detection

Each fiber optic LHD instrument is individually tested before shipping and must pass strict test limits.
This ensures that every fiber optic LHD unit will meet or exceed the specifications in this datasheet. Adhering to our stringent quality control measures guarantees optimal performance and a long product life.

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 setting	0.5 m					
Measurement time	1 s to 30 s			2 s to 30 s	3 s to 30 s	4 s to 30 s
Optical channels	1 **(C01)**, 2 **(C02)** and 4 **(C04)**					
Alarm zones per channel	2000					
Available measurement modes	Single-ended; Double-ended (loop, incl. fiber break recovery, not available with channel option C01)					

19” Rack mount
(Option DR)

Wall mount
(Option DW)

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 (2)	
Communication protocol	SCPI, Option **P01**: Modbus TCP	
Relays	Volt-free contacts, 30 V DC, 1 A Included: 4 inputs and 10 outputs Option **SR0**: 44 additional outputs Option **SRR**: 88 additional outputs Option **TMx**: Resistor configuration based on customer requirements	
Power	10 V to 30 V DC, 22 W typical at 20 °C ambient temperature, 40 W 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	0 to 95 % r.h. non-condensing	
Dimensions (H x W x D)	88 (2 HU) x 420 x 420 mm	473 x 420 x 105 mm
Weight	5 to 7 kg	7 to 9 kg

Rear / bottom view

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) / FM / UL 521 / ULC S530
Safety integrity level (SIL) 2			IEC 61508
ATEX	Option **EX0:** (Steel armored sensor cable)		I (M1) [Ex op is pr Ma] II (1) G [Ex op is pr IIC T6 Ga] II (1) D[Ex op is pr Da]
	Option **EX1:** (Any sensor cable)		I (M2) [Ex op is Mb] II (2) G [Ex op is IIC T6 Gb] II (2) D [Ex op is Db]
IECEx	Option **EX0:** (Steel 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]

(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 values of the sensor.

(2) SD/SDHC support depends on selected configuration (e.g. selected update time, trace length & number of alarm zones.) as the max. continuous writing speed on SD/SDHC cards is limited.

(3) Wall mount IP66 Housing options:
A4500A (with window) with operating temp. range -20° to +60°C
A4501A (without window) with operating temp. range -20° to +60°C
A4502A (with insulation, without window) with operating temp. range -25° to +55°C

IEC 1068/14

Product specifications and descriptions in this document are subject to change without notice and not binding to AP Sensing.

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