

## Description

The 407 non-addressable reflective beam line-type smoke detector is suitable for connection to 2-wire non-addressable fire detection control and indicating equipment, or to addressable fire detection control and indicating equipment that can accept non-addressable type detectors.

The transceiver component has four selectable detection ranges, providing smoke detection over distances from 8 m to 100 m. Three sensitivity settings can be used to compensate for differences in installed environments.

Automatic compensation adjusts for lens contamination, alignment drift, ambient light conditions and transmitted beam ageing. Operational parameters are set using a separate hand-held device manager.

The 407 non-addressable reflective beam line-type smoke detectors provide fire detection and alarm system designers with a Standards-compliant, economical smoke detector for high spaces and areas with complex ceilings where point-type smoke detectors may not be suitable due to environmental conditions.

## Features

- Four selectable ranges provide smoke detection for distances from 8 m to 100 m at up to 14.5 m width
- Three selectable sensitivity settings
- Single transceiver and separate reflector components
- Quiescent condition indicator
- Automatic compensation for lens contamination, alignment drift, ambient light conditions and transmitted beam ageing
- Self-diagnostics function monitors internal faults
- Separate Alarm and Fault relay outputs
- Easy to install and commission using device manager
- Low maintenance

## Compliance

407 line-type smoke detectors have the following compliance <sup>a</sup>.

	EN 54-12 <sup>b</sup>	CE <sup>c</sup>
407-001	✓	✓

<sup>a</sup> Third-party conformance assessment has not been undertaken.

<sup>b</sup> EN 54-12 Fire detection and fire alarm systems. Smoke detectors – Line detectors using an optical light beam

<sup>c</sup> Conformité Européenne

## Accessories

The following are accessories compatible with the 407 line-type smoke detectors.

Description	Part number	Datasheet
Reflector	407-002	—
Device manager	407-003	31-0121
Device manager I <sup>2</sup> C connection cable	407-004	—



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## Specifications

Power	407-001
Operating voltage	DC (15 ~ 28) V
Commissioning current	≤ 20 mA @ DC 28 V
Quiescent current	≤ 12 mA @ DC 28 V
Quiescent condition	
Quiescent indication	Flashing red LED
Alarm	
Obscuration sensitivity level (selectable)	(1.3 ± 0.3) dB/m (1.7 ± 0.3) dB/m (2.3 ± 0.3) dB/m
Detection distance (selectable)	(8 ~ 20) m (20 ~ 40) m (40 ~ 70) m <sup>a</sup> (70 ~ 100) m <sup>a</sup>
Detection width	14.5 m
Alarm current (max)	22 mA @ DC 28 V
Alarm indicator	Red LEDs
Alarm N/O relay	2.0 A @ DC 28 V
Reset time	15 s
Fault	
Fault indicator	Yellow LED
Fault N/C relay	2.0 A @ DC 28 V
Environmental	
Operating temperature	(-10 ~ +50)°C
Operating humidity	(0 ~ 95)% RH, non-condensing
Storage temperature	(-25 ~ +80)°C
Storage humidity	(0 ~ 98)% RH, non-condensing
Beam adjustment angle	±6°
Transmitted beam path angle	±0.5° directional
Alignment indicator (during commissioning)	Green LED Yellow LED
Dimensions (h x w x d)	(206 x 95 x 95) mm
Weight (with base)	405 g
Ingress protection rating	IP-20 IP66 <sup>b</sup>

<sup>a</sup> 2 x 2 reflector matrix required for detection distances > 40 m.

<sup>b</sup> Prepared with glue-seal treatment.

## Ordering Information

407-001

View the complete range of products at  
[www.numens.com](http://www.numens.com)

