

# XUSL4E14F046N

XUSL type 4 - Finger protection - Std sensing range - Hp = 460 mm, R=14mm



## Main

|                                  |                                                                    |
|----------------------------------|--------------------------------------------------------------------|
| Range of product                 | Preventa Safety detection                                          |
| Product or component type        | Safety light curtain type 4                                        |
| Device short name                | XUSL4E                                                             |
| Output type                      | 2 safety outputs OSSD solid-state PNP (integrated arc suppression) |
| Product specific application     | For finger protection                                              |
| [R] Resolution                   | 14 mm                                                              |
| [Sn] nominal sensing distance    | 1...6 m by cabling<br>0...3 m by cabling                           |
| [Hp] Height protected            | 460 mm                                                             |
| Number of beams                  | 45                                                                 |
| Type of start / restart          | Automatic<br>Manual                                                |
| External Device Monitoring (EDM) | Selected by wiring                                                 |

## Complementary

|                                |                                                                                                                              |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Detection system               | Transmitter-receiver system                                                                                                  |
| Response time                  | 7.5 ms                                                                                                                       |
| Kit composition                | Adjustable mounting bracket(s)<br>1 receiver(s)<br>1 transmitter(s)<br>1 user guide with certificate of conformity on CD-ROM |
| [EAA] effective aperture angle | +/- 2.5 ° at 3 m                                                                                                             |
| Emission                       | IR LED ( $\lambda = 950$ nm)                                                                                                 |
| [Us] rated supply voltage      | 24 V DC (+/- 20 %)                                                                                                           |
| Supply                         | Power supply must meet requirements of IEC 61496-1<br>Power supply must meet requirements of IEC 60204-1                     |
| [Ie] rated operational current | 2 A                                                                                                                          |
| Current consumption            | 42 mA no-load (transmitter)<br>83 mA no-load (receiver)<br>42 mA (transmitter)<br>900 mA with maximum load (receiver)        |
| Output current limits          | 0.4 A for safety outputs OSSD                                                                                                |
| Output voltage                 | 24 V                                                                                                                         |
| Output circuit type            | DC                                                                                                                           |
| Voltage drop                   | $\leq 0.5$ V                                                                                                                 |
| Local signalling               | 1 multi-colour LED (transmitter)<br>2 dual colour LEDs (receiver)                                                            |
| Electrical connection          | 1 male connector M12 5 pins (transmitter)<br>1 male connector M12 8 pins (receiver)                                          |
| Function available             | Test<br>Muting through external safety module XPSLCMUT1160<br>LED display of operating modes and faults                      |
| Marking                        | CE                                                                                                                           |
| Material                       | Casing : aluminium<br>Front panel : polycarbonate<br>End caps : polypropylene                                                |
| Housing colour                 | RAL 3000 : red                                                                                                               |

|                |                    |
|----------------|--------------------|
| Fixing mode    | By fixing brackets |
| Product weight | 1 kg               |
| Offer type     | Standard distance  |

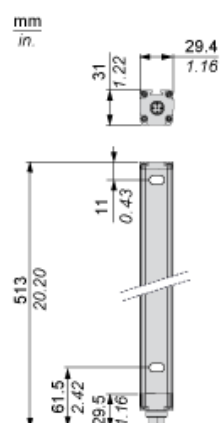
## Environment

|                                       |                                                                                                                                                                                        |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Directives                            | 89/336/EEC - electromagnetic compatibility<br>2002/96/EC - WEEE directive<br>2002/95/EC - RoHS directive<br>98/37/EEC - machinery<br>89/655/EEC - work equipment                       |
| Product certifications                | CE<br>CULus<br>TÜV                                                                                                                                                                     |
| Safety level (correctly wired)        | Type 4 conforming to IEC 61496-1<br>SIL 3 conforming to IEC 61508<br>SILCL 3 conforming to IEC 62061<br>Category 4 conforming to EN/ISO 13849-1<br>PL = e conforming to EN/ISO 13849-1 |
| Optical characteristic                | Resistance to light disturbance conforming to EN/IEC 61496-2                                                                                                                           |
| Mission time                          | 20 yr                                                                                                                                                                                  |
| Safety reliability data               | PFHd = 1.52E-8 1/h conforming to IEC 61508                                                                                                                                             |
| Ambient air temperature for operation | -10...55 °C<br>14...131 °F                                                                                                                                                             |
| Ambient air temperature for storage   | -25...70 °C<br>-13...158 °F                                                                                                                                                            |
| Relative humidity                     | <= 95 % without condensation                                                                                                                                                           |
| IP degree of protection               | IP65<br>IP67                                                                                                                                                                           |
| Shock resistance                      | 10 gn for 16 ms conforming to IEC 61496-1                                                                                                                                              |
| Vibration resistance                  | 0.35 +/- 0.05 mm (f = 10...55 Hz) conforming to IEC 61496-1                                                                                                                            |

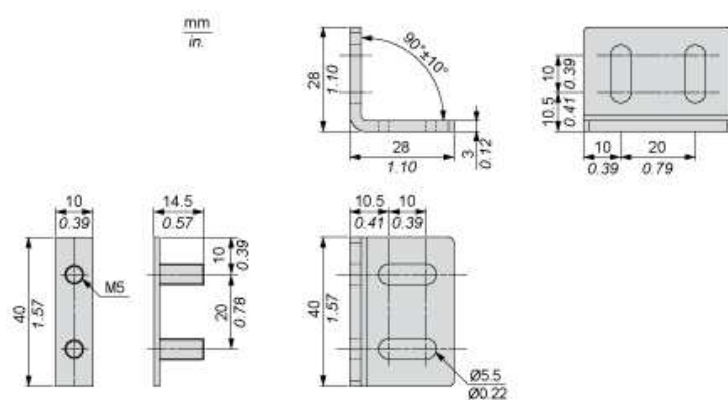
## Offer Sustainability

|                                  |                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------|
| Sustainable offer status         | Green Premium product                                                                 |
| RoHS (date code: YYWW)           | Compliant - since 1425 - <a href="#">Schneider Electric declaration of conformity</a> |
| REACH                            | Reference not containing SVHC above the threshold                                     |
| Product environmental profile    | Available <a href="#">Download Product Environmental</a>                              |
| Product end of life instructions | Available <a href="#">Download End Of Life Manual</a>                                 |

## Dimensions



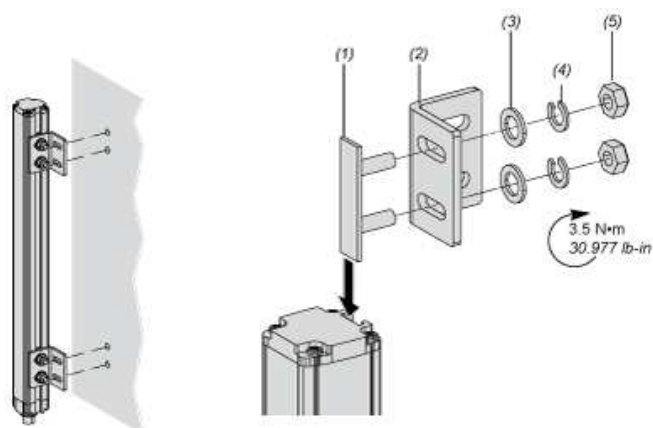
## Brackets Dimensions



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Mounting and Clearance

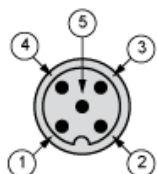
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- (1) Insert
- (2) Bracket
- (3) Washer
- (4) Spring washer
- (5) Nut

## Wiring Diagrams

### Transmitter Connections

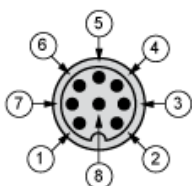


- (1) +24 Vdc
- (2) Configuration\_0
- (3) 0 Vdc
- (4) Configuration\_1
- (5) FE

Transmitter configurations and operating modes

|                         | High range option | Low range option | Transmitter in Test state | Forbidden wiring |
|-------------------------|-------------------|------------------|---------------------------|------------------|
| Pin 4 : Configuration_1 | 24 V              | 0 V              | 0 V                       | 24 V             |
| Pin 2 : Configuration_0 | 0 V               | 24 V             | 0 V                       | 24 V             |

### Receiver Connections

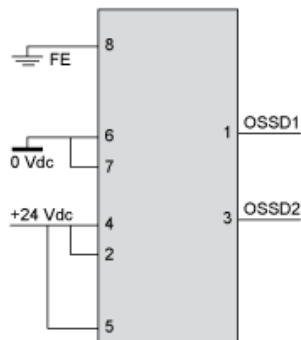


- (1) OSSD1
- (2) + 24 V
- (3) OSSD2
- (4) Configuration\_A
- (5) K1\_K2 Feedback/Restart
- (6) Configuration\_B
- (7) 0 Vdc
- (8) FE

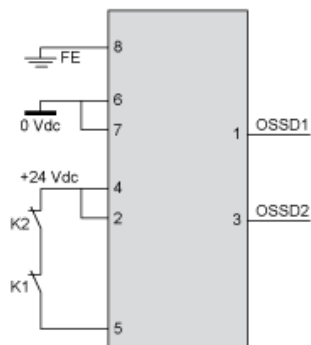
### Receiver Configurations and Operating Modes

#### Automatic Start/Restart

Without External Device Monitoring (EDM) feedback loop

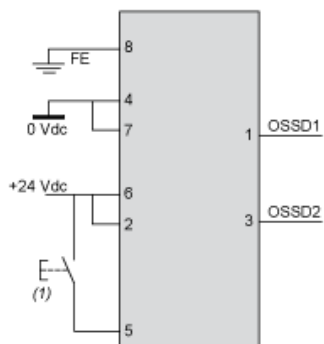


With External Device Monitoring (EDM) feedback loop



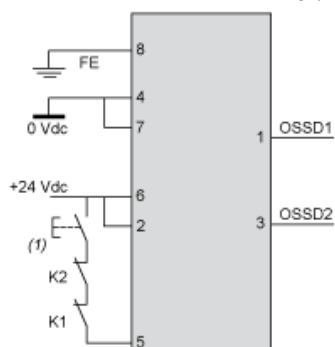
## Manual Start/Restart

Without External Device Monitoring (EDM) feedback loop



(1) Restart

With External Device Monitoring (EDM) feedback loop



(1) Restart

## Connecting to a Safety Interface



- 1 : Click on Download & Documents
- 2 : Click on System user guide

To have all connection schematics concerning our safety module, select "download and document" and download the file "Safety light curtains association with safety interfaces"