## Product datasheet Characteristics

# XUSL4E14F151N





## Main

| Man                                   |  |  |  |  |
|---------------------------------------|--|--|--|--|
| 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  |  |  |  |
| Minimum object diameter for detection | 0.55 in (14 mm)  |  |  |  |
| [Sn] nominal sensing distance         | 16 m by cabling<br>03 m by cabling                                 |  |  |  |
| Height protected                      | 59.45 in (1510 mm)   |  |  |  |
| Number of beams                       | 150  |  |  |  |
| Type of start                         | Automatic<br>Manual  |  |  |  |
| Control type                          | Selected by wiring   |  |  |  |
|                                       |  |  |  |  |

## Complementary

| Detection system               | Transmitter-receiver system  |  |
|--------------------------------|--|--|
| Response time                  | 20 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 (λ = 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                     |  |
| [le] 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 Afor safety outputs OSSD   |  |
| Output voltage                 | 24 V   |  |
| Output circuit type            | DC   |  |
| Voltage drop                   | <= 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                 | 6.17 lb(US) (2.8 kg)   |  |



## Environment

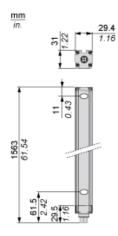
| directives                            | 89/336/EEC - electromagnetic compatibility<br>2002/96/EC - WEEE directive<br>2002/95/EC - RoHS directive<br>98/37/EEC - machinery<br>89/655/EEC - work equipment                       |  |  |  |
|---------------------------------------|--|--|--|--|
| product certifications                | CE<br>CULus<br>TÜV   |  |  |  |
| safety level                          | SIL 3 conforming to IEC 61508<br>Type 4 conforming to IEC 61496-1<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 |  |  |  |
| environmental characteristic          | Resistance to light disturbance conforming to EN/IEC 61496-2   |  |  |  |
| service life                          | 20 yr  |  |  |  |
| safety reliability data               | PFHd = 3.22E-8 1/h conforming to IEC 61508   |  |  |  |
| ambient air temperature for operation | -4131 °F (-2055 °C)<br>14131 °F  |  |  |  |
| ambient air temperature for storage   | -31158 °F (-3570 °C)<br>-13158 °F  |  |  |  |
| relative humidity                     | 095 % without condensation   |  |  |  |
| IP degree of protection               | IP65<br>IP67   |  |  |  |
| shock resistance                      | 10 gn 16 ms conforming to IEC 61496-1  |  |  |  |
| vibration resistance                  | 0.35 +/- 0.05 mm (f = 1055 Hz) conforming to IEC 61496-1   |  |  |  |

## **Offer Sustainability**

| Green Premium product   | Green Premium product   |  |  |
|---|---|--|--|
| Compliant - since 1425 - Schneider Electric declaration<br>of conformity  | Compliant - since 1425 - Schneider Electric declaration of conformity   |  |  |
| Reference not containing SVHC above the threshold   | Reference not containing SVHC above the threshold   |  |  |
| Available   | Available   |  |  |
| Available   | Available   |  |  |
| WARNING: This product can expose you to chemicals including:  | WARNING: This product can expose you to chemicals including:  |  |  |
| Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and                                     | Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and                                 |  |  |
| Di-isodecyl phthalate (DIDP), which is known to the Stat<br>of California to cause birth defects or other reproductive<br>harm. | eDi-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. |  |  |

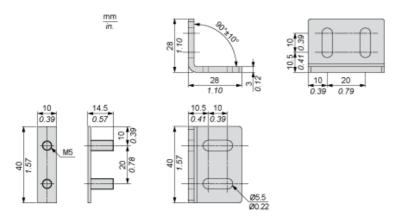
For more information go to www.p65warnings.ca.gov For more information go to www.p65warnings.ca.gov

## Dimensions

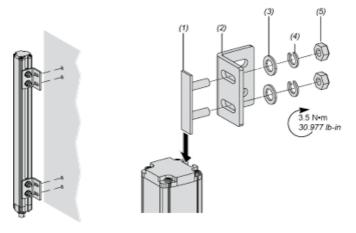




## **Brackets Dimensions**



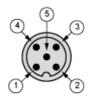
## **Mounting and Clearance**



- (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

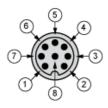
#### (5) FE

Transmitter configurations and operating modes

|                         | High range option | Low range option | Transmitter in Test<br>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**

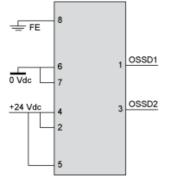


- (1) OSSD1
- (2) + 24 ∨(3) OSSD2
- (4) Configuration\_A
- (5) K1\_K2 Feeback/Restart
- (6) Configuration\_B
- (7) 0 Vdc
- (8) FE

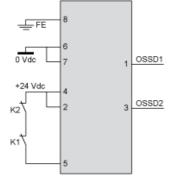
## **Receiver Configurations and Operating Modes**

#### Automatic Start/Restart

Without External Device Monitoring (EDM) feedback loop

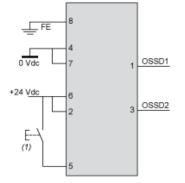


With External Device Monitoring (EDM) feedback loop



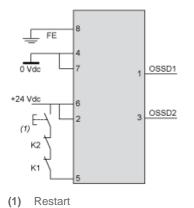
#### Manual Start/Restart

Without External Device Monitoring (EDM) feedback loop



(1) Restart With External Device Monitoring (EDM) feedback loop





## **Connecting to a Safety Interface**



1: Click on Download & Documents

2: Click on Application solutions

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

