

### Main

|                                  |                                                         |
|----------------------------------|---------------------------------------------------------|
| Range of product                 | Telemecanique Safety light curtains XUSL                |
| Product or component type        | Safety light curtain type 4                             |
| Device short name                | XUSL4E                                                  |
| Output type                      | 2 safety outputs OSSD solid-state PNP (arc suppression) |
| Product specific application     | For hand protection                                     |
| [R] Resolution                   | 30 mm                                                   |
| [Sn] nominal sensing distance    | 0...12 M by cabling<br>0...4 m by cabling               |
| [Hp] Height protected            | 910 mm                                                  |
| Number of beams                  | 38                                                      |
| Type of start / restart          | Manual<br>Automatic                                     |
| External Device Monitoring (EDM) | Selected by wiring                                      |

### Complementary

|                                |                                                                                                                              |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Detection system               | Transmitter-receiver system                                                                                                  |
| 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 950 nm                                                                                                                |
| [Us] rated supply voltage      | 24 V DC +/- 20 %                                                                                                             |
| Supply                         | Power supply conforming to IEC 61496-1<br>Power supply conforming to 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                                                                                                                           |
| Maximum 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                       | Aluminium: casing<br>Polycarbonate: front panel<br>Polypropylene: end caps                                                   |
| Housing colour                 | Red RAL 3000                                                                                                                 |
| Fixing mode                    | By fixing brackets                                                                                                           |
| Net weight                     | 1.72 kg                                                                                                                      |

|            |                    |
|------------|--------------------|
| Offer type | Standard distance  |
| Topology   | Daisy chain master |

## Environment

|                                       |                                                                                                                                                                                        |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Directives                            | 89/655/EEC - work equipment<br>98/37/EEC - machinery<br>2002/96/EC - WEEE directive<br>2002/95/EC - RoHS directive<br>89/336/EEC - electromagnetic compatibility                       |
| Product certifications                | TÜV<br>CULus<br>CE                                                                                                                                                                     |
| 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 year(s)                                                                                                                                                                             |
| Safety reliability data               | PFHd = 1.30E-8 1/h conforming to IEC 61508                                                                                                                                             |
| Ambient air temperature for operation | -30...55 °C<br>-10...55 °C                                                                                                                                                             |
| Ambient air temperature for storage   | -25...70 °C<br>-35...70 °C                                                                                                                                                             |
| Relative humidity                     | 0...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                                                                                                                             |

## Packing Units

|                  |           |
|------------------|-----------|
| Package 1 Weight | 2.416 kg  |
| Package 1 Height | 1.400 dm  |
| Package 1 width  | 2.050 dm  |
| Package 1 Length | 10.400 dm |

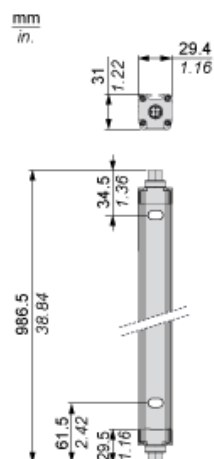
## Offer Sustainability

|                            |                                                                                                                                                                                      |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                                                                                |
| REACH Regulation           |  <a href="#">REACH Declaration</a>                                                                |
| REACH free of SVHC         | Yes                                                                                                                                                                                  |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)  <a href="#">EU RoHS Declaration</a> |
| Toxic heavy metal free     | Yes                                                                                                                                                                                  |
| Mercury free               | Yes                                                                                                                                                                                  |
| RoHS exemption information |  <a href="#">Yes</a>                                                                              |
| Environmental Disclosure   |  <a href="#">Product Environmental Profile</a>                                                    |
| Circularity Profile        |  <a href="#">End of Life Information</a>                                                          |

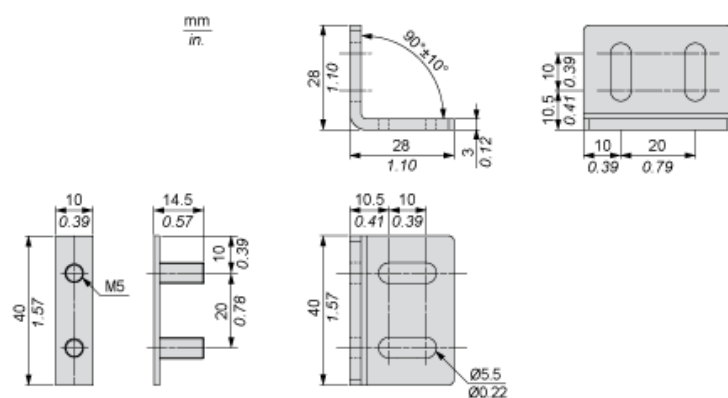
## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

## Dimensions



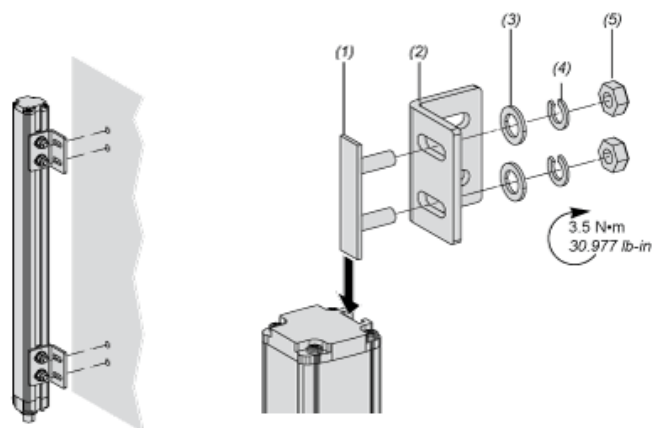
## Brackets Dimensions



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Mounting and Clearance

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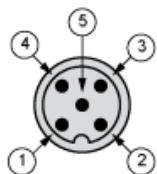


- (1) Insert
- (2) Bracket
- (3) Washer
- (4) Spring washer
- (5) Nut

## Wiring Diagrams

### Transmitter Connections

Master primary connector at the bottom

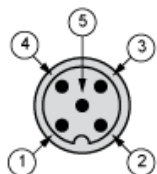


- (1) +24 Vdc
- (2) Configuration\_0
- (3) 0 Vdc
- (4) Configuration\_1
- (5) FE

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             |

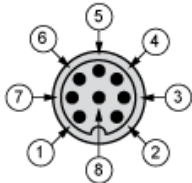
Master secondary connector at the top



- (1) +24 Vdc
- (2) Master/Slave\_A
- (3) 0 Vdc
- (4) Master/Slave\_B
- (5) FE

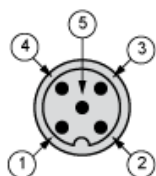
### Receiver Connections

Master primary connector at the bottom



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

Master secondary connector at the top

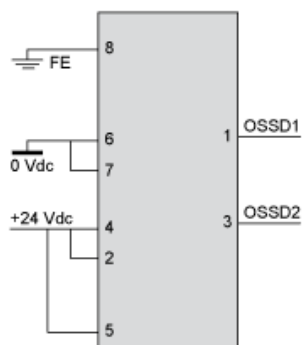


- (1) +24 Vdc
- (2) Master/Slave\_A
- (3) 0 Vdc
- (4) Master/Slave\_B
- (5) FE

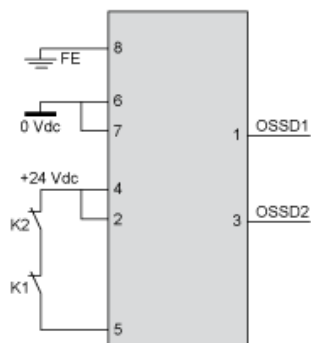
## Receiver Configurations and Operating Modes

### Automatic Start/Restart

Without External Device Monitoring (EDM) feedback loop

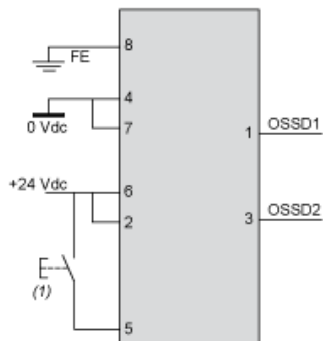


With External Device Monitoring (EDM) feedback loop



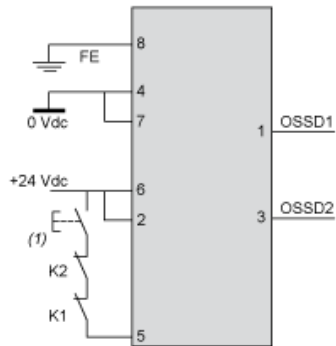
### Manual Start/Restart

Without External Device Monitoring (EDM) feedback loop



- (1) Restart

With External Device Monitoring (EDM) feedback loop



(1) Restart

## Connecting to a Safety Interface

The screenshot shows the 'Discover XUSL4E14F016N by' section on the left with a list of links: Characteristics, Dimensions Drawings, Mounting and Clearance, Connections and Schema, and Download & Documents. The 'Download & Documents' link is highlighted with a red box and labeled with a circled '1'. The main content area shows 'Download & Documents 1 to 9 of 9' with various document categories. The 'Application solutions' category is highlighted with a red box and labeled with a circled '2', showing the document 'Safety light curtains association with safety interfaces'.

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"