

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	1.18 in (30 mm)
[Sn] nominal sensing distance	9.84...55.77 ft (3...17 m) by cabling 0.00...26.25 ft (0...8 m) by cabling
[Hp] Height protected	24.02 in (610 mm)
Number of beams	31
Type of start / restart	Automatic Manual
External Device Monitoring (EDM)	Selected by wiring

Complementary

Detection system	Transmitter-receiver system
Response time	9 ms
Kit composition	adjustable mounting bracket(s) 1 receiver(s) 1 transmitter(s) 1 user guide with certificate of conformity on CD-ROM silicone o-ring(s) 1 PVC cable(s)
[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 Power supply conforming to IEC 60204-1
[Ie] rated operational current	2 A

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Current consumption	42 mA no-load transmitter 83 mA no-load receiver 42 mA transmitter 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
Maximum Heating system power consumption	10 W
Local signalling	1 multi-colour LED transmitter 2 dual colour LEDs receiver
Electrical connection	1 male connector M12 5 pins transmitter 1 male connector M12 8 pins receiver
Type of cable	Unshielded cable AWG 22 32.81 ft (10 m)
Ohmic cable resistance (per m)	55.31 mOhm
Function available	Test Muting through external safety module XPSLCMUT1160 LED display of operating modes and faults Anti-condensation system
Marking	CE
Material	PMMA (polymethyl methacrylate) tube Stainless steel AISI 316L sealing plug PVC (polyvinyl chloride): cable
Housing colour	Red RAL 3000
Fixing mode	By fixing brackets
Net weight	10.05 lb(US) (4.56 kg)
Offer type	Long distance
Provided equipment	With heating system

Environment

Directives	2002/96/EC - WEEE directive 89/336/EEC - electromagnetic compatibility 2002/95/EC - RoHS directive 98/37/EEC - machinery 89/655/EEC - work equipment
Product certifications	CE CULus Ecolab TÜV
Safety level (correctly wired)	Type 4 conforming to IEC 61496-1 SIL 3 conforming to IEC 61508 SILCL 3 conforming to IEC 62061 Category 4 conforming to EN/ISO 13849-1 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 = 1.06E-8 1/h IEC 61508
Ambient air temperature for operation	-22...131 °F (-30...55 °C) -13...131 °F (-25...55 °C)
Ambient air temperature for storage	-22...158 °F (-30...70 °C) -13...158 °F (-25...70 °C)
Relative humidity	0...95 % without condensation
IP degree of protection	IP69K
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

Unit Type of Package 1	PCE
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Number of Units in Package 1	1
Package 1 Weight	12.27 lb(US) (5.566 kg)
Package 1 Height	5.31 in (13.5 cm)
Package 1 width	7.68 in (19.5 cm)
Package 1 Length	27.56 in (70 cm)

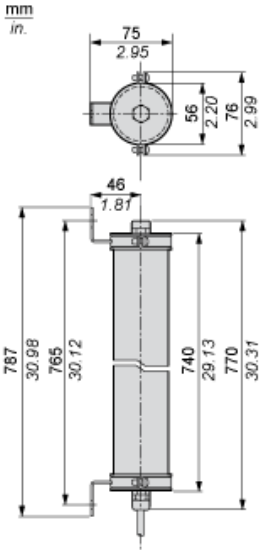
Offer Sustainability

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

Contractual warranty

Warranty	18 months
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Dimensions



Mounting and Clearance



Wiring Diagrams

Transmitter Pre-wired

Brown: +24 Vdc

White: Configuration_0

Blue: 0 Vdc

Green or Black: Configuration_1

Grey: Functional Earth

Yellow: 0 Vdc (Heating system)

Red: +24 Vac/Vdc (Heating system)

Pink: Not connected

Receiver pre-wired

White: Output signal switching device 1

Brown: +24 Vdc

Green: Output signal switching device 2

Yellow: Configuration_A

Grey: K1_K2 Feedback/Restart

Pink: Configuration_B

Blue: 0 Vdc

Yellow/Green (or Red): Functional Earth

Black: 0 Vdc (Heating system)

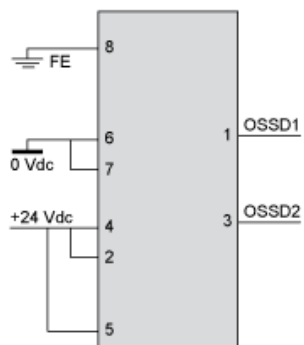
Violet: 24 Vac/Vdc (Heating system)

For configuration_A and configuration_B, please refer to receiver configuration and operating modes

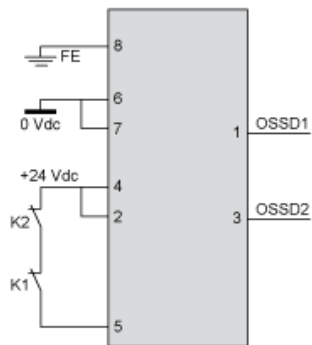
Receiver Configurations and Operating Modes

Automatic Start/Restart

Without External Device Monitoring (EDM) feedback loop

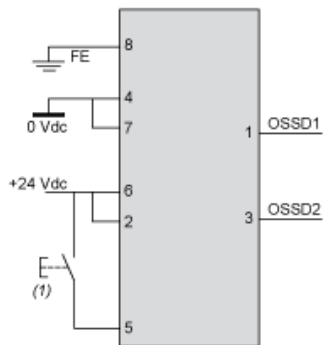


With External Device Monitoring (EDM) feedback loop



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 a web interface for product documentation. On the left, a sidebar titled "Discover XUSL4E14F016N by" contains a list of categories: Characteristics, Dimensions Drawings, Mounting and Clearance, Connections and Schema, and Download & Documents. The "Download & Documents" link is highlighted with a red box and a circled number 1. A vertical line connects this link to the "Download & Documents 1 to 9 of 9" section on the right. This section contains several document entries. The "Application solutions" entry, titled "Safety light curtains association with safety interfaces", is highlighted with a red box and a circled number 2. Below the screenshot, two numbered steps are listed: 1: Click on Download & Documents, and 2: Click on Application solutions.

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"