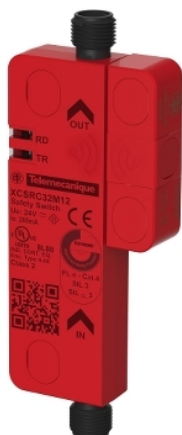# Product data sheet
Characteristics

XCSRC32M12

Preventa RFID safety switch, Telemecanique Safety switches XCS, contactless Daisy Chain model, 2 new re pairing enabled

Green Premium™ Product

Main

Range of product	Telemecanique Safety switches XCS
Product or component type	Preventa RFID safety switch
Component name	XCSRC

Complementary

Design	Rectangular, standard
Size	Transponder: 50 x 15 x 15 mm Reader: 119.6 x 30 x 15 mm
Material	Valox
Electrical connection	2 male connectors
Connector type	M12 male
Type of output stage	Solid-state, PNP
Safety outputs	2 NO
Number of poles	5
Local signalling	Green, orange and red 2 multi-colour LEDs
[Sao] assured operating sensing distance	10 mm face to face
[Sar] assured release sensing distance	35 mm face to face
Approach directions	3 directions-transponder with rotary sensing face
[Ue] rated operational voltage	24 V DC (- 20...10 %)SELV or PELV conforming to EN/IEC 60204-1
[Ie] rated operational current	60 mA
[Ui] rated insulation voltage	30 V DC
[Uimp] rated impulse withstand voltage	0.8 kV IEC 60947-5-2
Protection type	Short-circuit protection
Maximum switching voltage	26.4 V DC
Switching capacity in mA	200 mA
Switching frequency	<= 0.5 Hz
risk time	120 ms + 18 ms per additional switch connected in series
Response time	120 ms + 50 ms typical per additional switch connected in series
Maximum delay first up	5 s
Tightening torque	< 1.5 N.m
Standards	EN/IEC 60947-5-2 EN/IEC 60947-5-3 ISO 14119
Product certifications	CSA 22-2 FCC IC EAC RCM Ecolab TÜV E2

Marking	CULus TÜV IC CE FCC RCM EAC
Safety level	SIL 3 conforming to EN/IEC 61508 SILCL 3 conforming to EN/IEC 62061 PL = e conforming to EN/ISO 13849-1 Category 4 conforming to EN/ISO 13849-1
Safety reliability data	PFH_D = 5E-10/h conforming to EN/IEC 62061 PFH_D = 5E-10/h conforming to EN/ISO 13849-1
Mission time	20 year(s)
Ambient air temperature for operation	-25…70 °C
Ambient air temperature for storage	-40…85 °C
Vibration resistance	10 gn (f= 10…150 Hz) conforming to EN/IEC 60068-2-6
Shock resistance	30 gn for 11 ms conforming to EN/IEC 60068-2-27
Electrical shock protection class	Class III conforming to EN/IEC 61140
IP degree of protection	IP65 conforming to EN/IEC 60529 IP66 conforming to EN/IEC 60529 IP67 conforming to EN/IEC 60529 IP69K conforming to DIN 40050

Packing Units

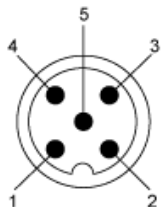|	
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	108 g
Package 1 Height	3.3 cm
Package 1 width	14.8 cm
Package 1 Length	17.5 cm
Unit Type of Package 2	S01
Number of Units in Package 2	12
Package 2 Weight	1.451 kg
Package 2 Height	15 cm
Package 2 width	15 cm
Package 2 Length	40 cm

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile

XCSRC32M12

Dimensions

Connections

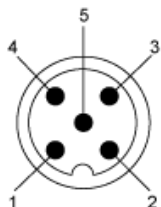### M12 Connectors, 5-pin

Output Connector

(1)   + 24 VDC
(2)   OSSD2 (O2)
(3)   0 VDC
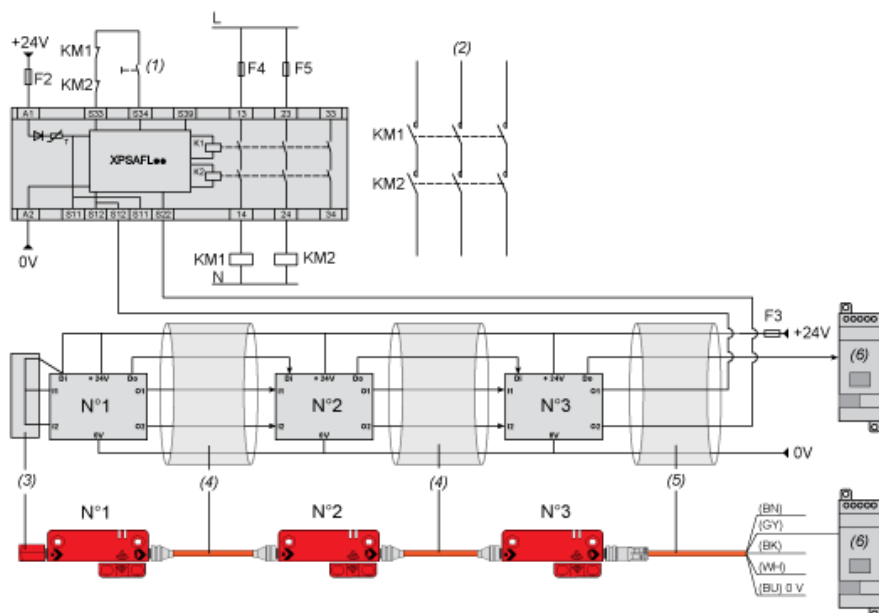(4)   OSSD1 (O1)
(5)   Diagnosis Out (Do)

Input Connector

(1)   + 24 VDC
(2)   INPUT 2 (I2)
(3)   0 VDC
(4)   INPUT 1 (I1)
(5)   Diagnosis In (Di)

Connections

Wiring Diagram: Series Connection

Cat. 4 / PL=e (EN/ISO 13849-1) / SIL3 (IEC 61508) / SILCL3 IEC 62061), if combined with an appropriate Preventa XPS Safety module PL=e / SIL3
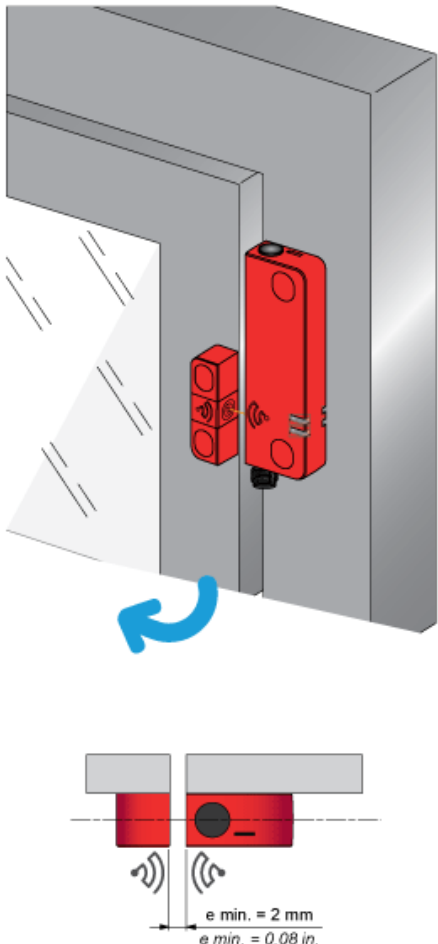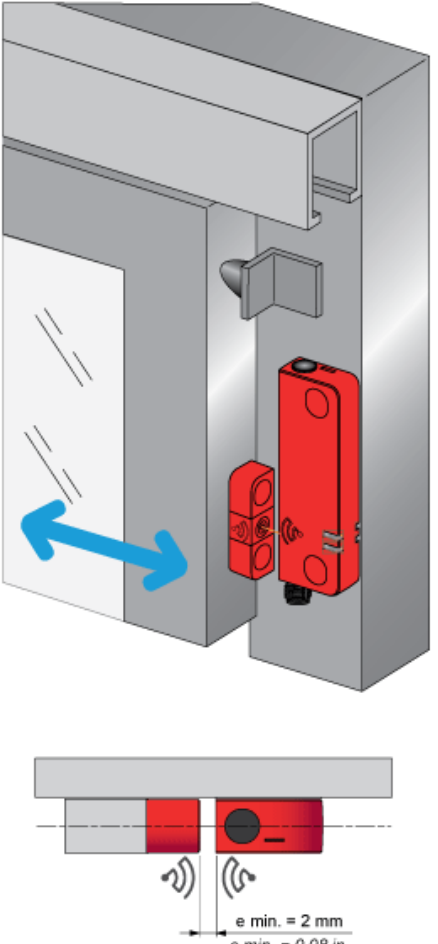
(1)   Start
(2)   Power circuit
(3)   Loopback device
(4)   M12/M12 female jumpers
(5)   Pre-wired female connectors
(6)   Diagnostic module (option)

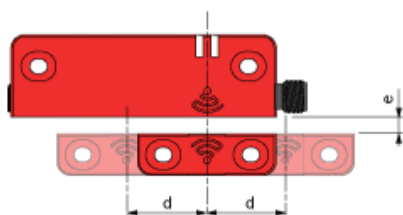NOTE: KM1 and KM2 contactors must have force-guided contacts.
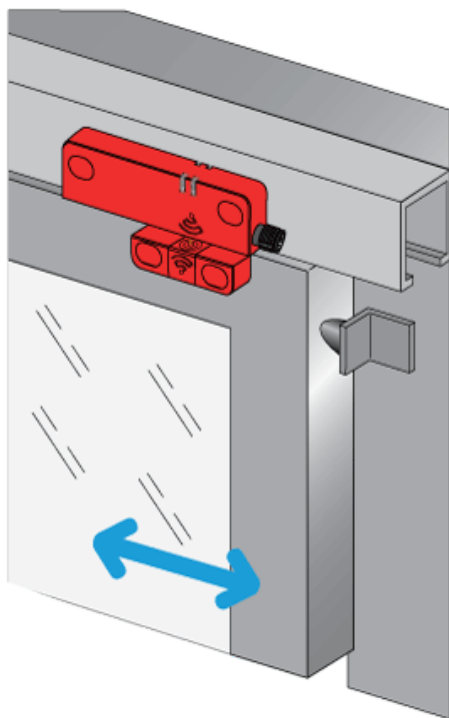
XCSRC32M12

Mounting and Clearance

Face to Face Mounting (Preferred Configuration)

Example n°1	Example n°2
e min. = 2 mm e min. = 0.08 in.	e min. = 2 mm e min. = 0.08 in.
e: Recommended minimum mounting distance between transponder and reader.	e: Recommended minimum mounting distance between transponder and reader.

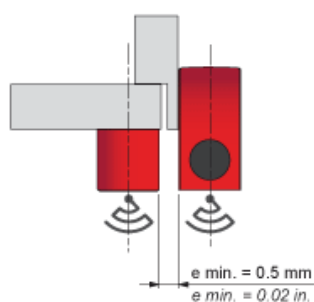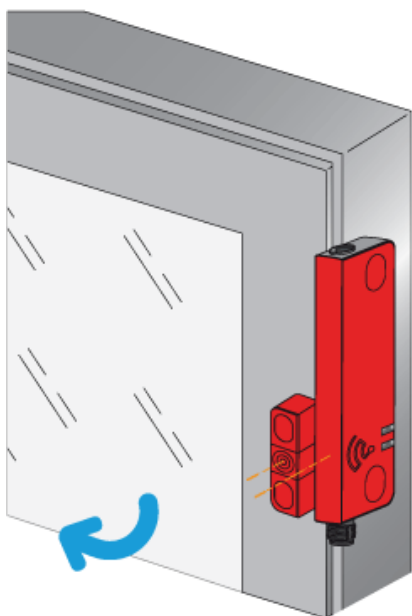## Face to Face Mounting (Preferred Configuration)

Example n°3

e > 2 mm. (e: recommended minimum mounting distance between transponder and reader)
min.

d :   Detection limit

Mounting and Clearance
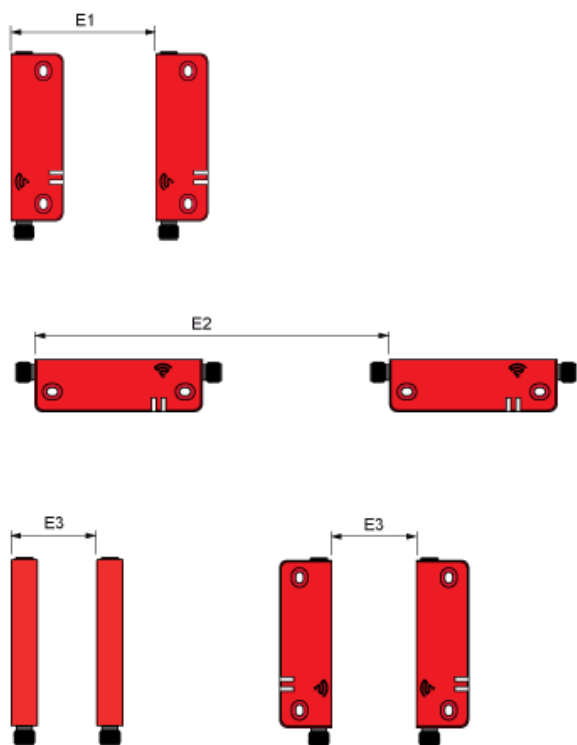
Side by Side Mounting

Correct Mounting Configuration

e min. = 0.5 mm
e min. = 0.02 in.

e: Recommended minimum mounting distance between transponder and reader.

Mounting and Clearance

Minimum Mounting Clearances between Safety Switches
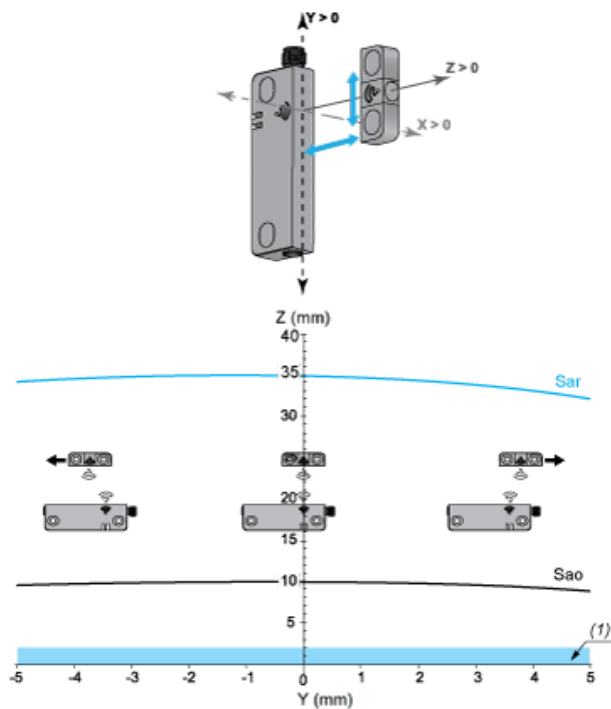

Dimensions in mm

E1 min.	E2 min.	E3 min.
45	150	65

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Dimensions in in.

E1 min.	E2 min.	E3 min.
1.77	5.91	2.56

Detection Curves

Face to Face Mounting (Preferred Configuration)

Sao and Sar sensing distances along Y axis as function of Z (longitudinal misalignment for X=0)
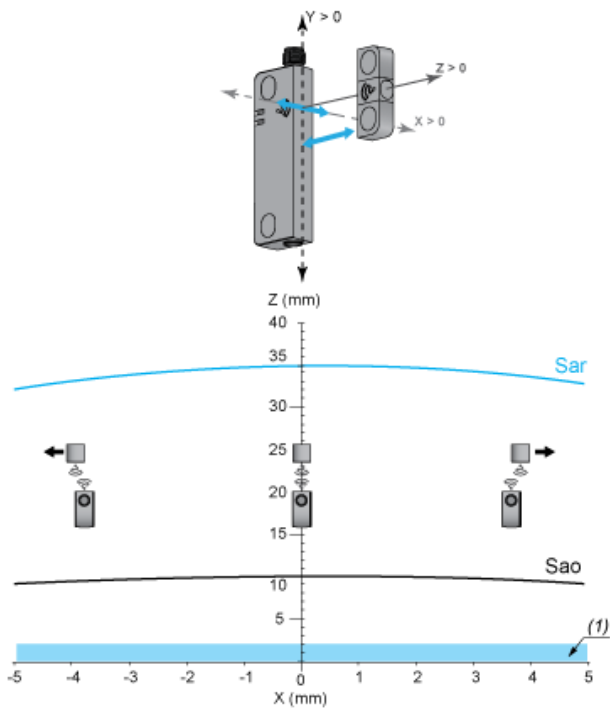

Sar: Assured release distance
Sao: Assured operating distance
(1)   Recommended minimum mounting distance between transponder and reader.

Sao and Sar sensing distances along X axis as function of Z (transverse misalignment for Y=0)

Sar: Assured release distance
Sao: Assured operating distance
(1) Recommended minimum mounting distance between transponder and reader.

Detection Curves

Side by Side Mounting

Sao and Sar sensing distances along Y axis as function of X (longitudinal misalignment for Z=0mm)

Sar: Assured release distance
Sao: Assured operating distance
(1) X=0 for X<0
(2) X=0 for X>0
(3) Recommended minimum mounting distance between transponder and reader.

Sao and Sar sensing distances along Z axis as function of X (transverse misalignment for Y=0mm)
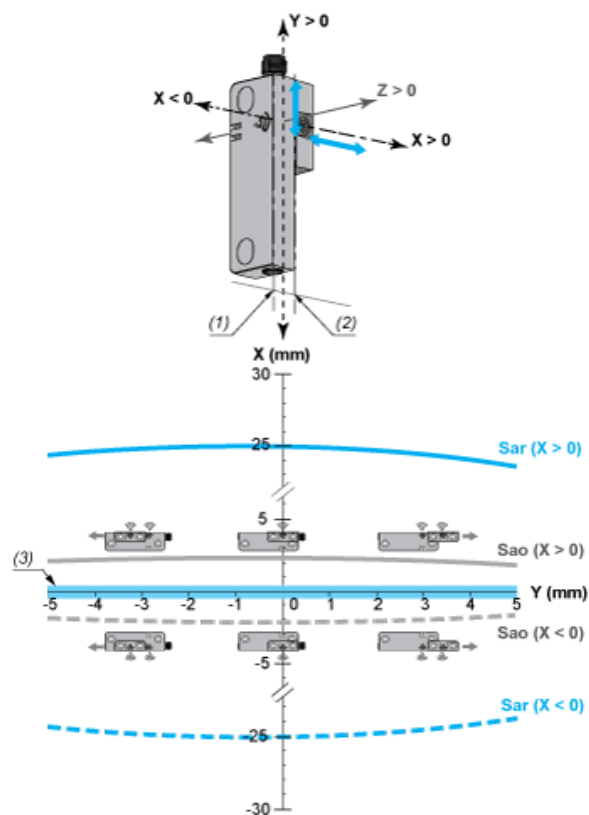
Sar: Assured release distance
Sao: Assured operating distance
(1)   X=0 for X<0
(2)   X=0 for X>0
(3)   Recommended minimum mounting distance between transponder and reader.

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