

XCSRC31MM12

Preventa RFID safety switch, Telemecanique
Safety switches XCS, Standalone model EDM
+Manual Start 2 new re pairing enabled



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: 108.3 x 30 x 15 mm
Material	Valox
Electrical connection	1 male connector
Connector type	M12 male
Type of output stage	Solid-state, PNP
Safety outputs	2 NO
Number of poles	8
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	400 mA
Switching frequency	<= 0.5 Hz
risk time	120 ms
Response time	250 ms typical
Maximum delay first up	5 s
Tightening torque	< 1.5 N.m
Standards	ISO 14119 EN/IEC 60947-5-3 EN/IEC 60947-5-2
Product certifications	TÜV FCC E2 Ecolab CSA 22-2 EAC IC RCM

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Marking	CULus IC EAC TÜV RCM FCC CE
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

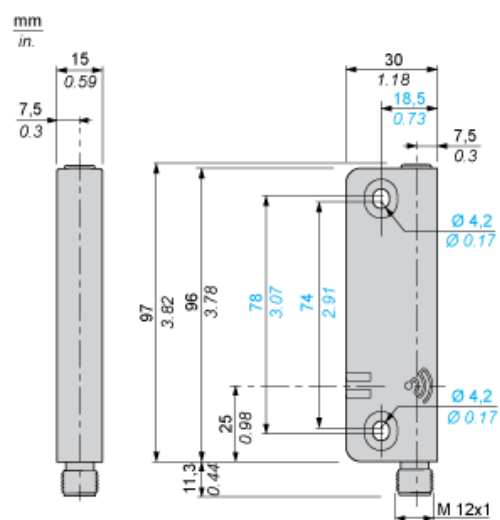
Packing Units

Package 1 Weight	0.103 kg
Package 1 Height	0.200 dm
Package 1 width	1.100 dm
Package 1 Length	1.500 dm

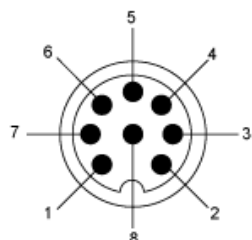
Offer Sustainability

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

Dimensions



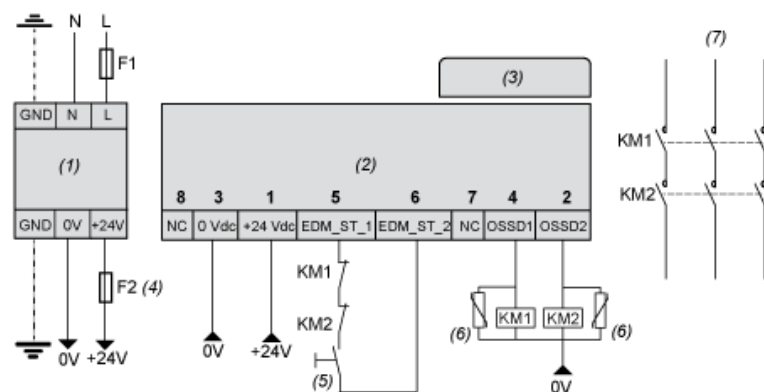
M12 Connector, 8-pin



- (1) + 24 VDC
- (2) OSSD2
- (3) 0 VDC
- (4) OSSD1
- (5) EDM_ST_1
- (6) EDM_ST_2
- (7) NC (Not connected)
- (8) NC (Not connected)

Wiring Diagram

Cat. 4 / PL=e (EN/ISO 13849-1) / SIL3 (IEC 61508) / SILCL3 IEC 62061)

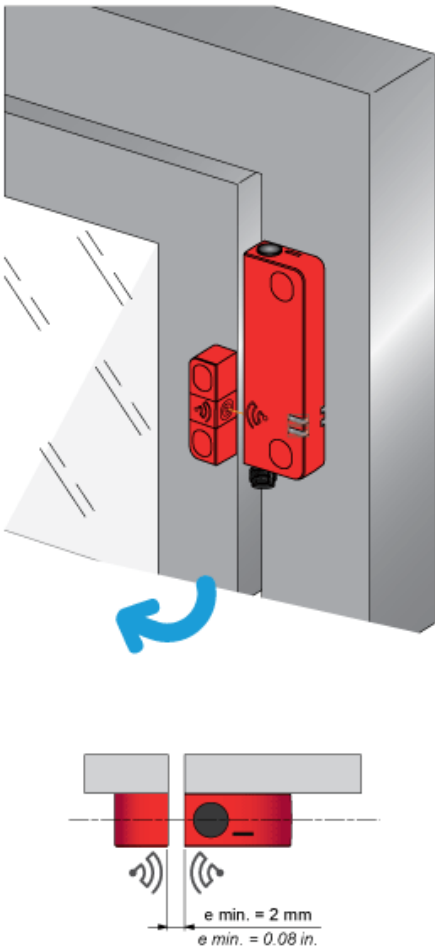
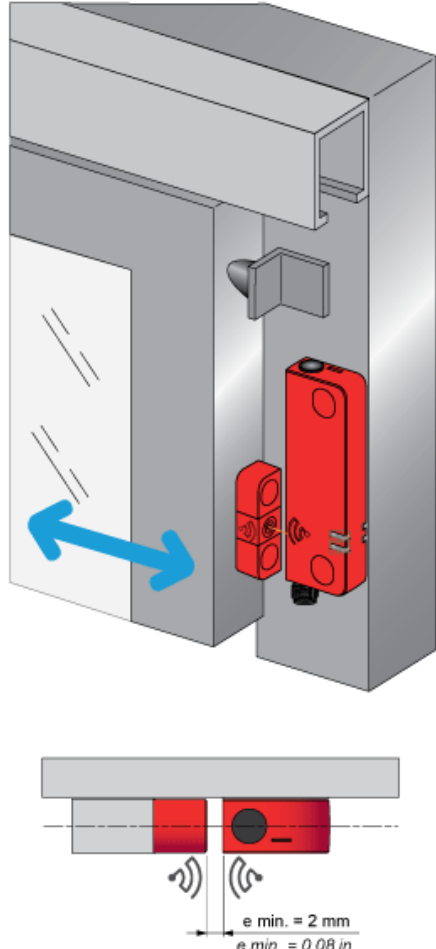


- (1) Power Supply
- (2) Reader
- (3) Transponder
- (4) 1 A max.
- (5) Restart
- (6) Use of arc suppressors for KM1 and KM2 is recommended.
- (7) Power circuit

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

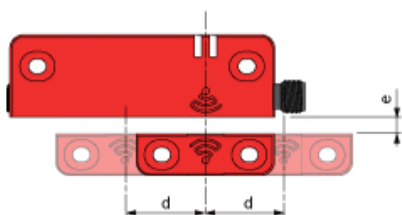
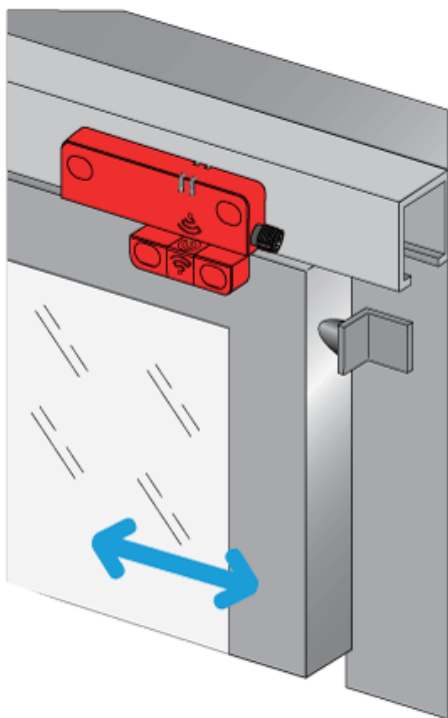
Mounting and Clearance

Face to Face Mounting (Preferred Configuration)

Example n°1	Example n°2
 <p>e: Recommended minimum mounting distance between transponder and reader.</p>	 <p>e: Recommended minimum mounting distance between transponder and reader.</p>

Face to Face Mounting (Preferred Configuration)

Example n°3



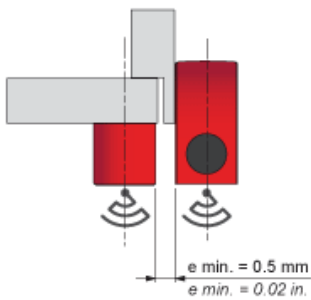
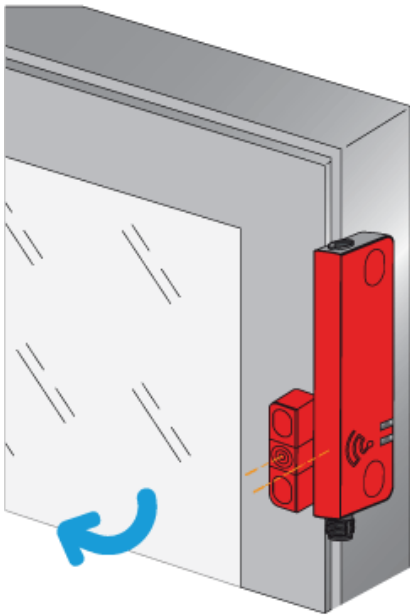
$e > 2 \text{ mm}$. (e: recommended minimum mounting distance between transponder and reader)
min.

d : Detection limit

Mounting and Clearance

Side by Side Mounting

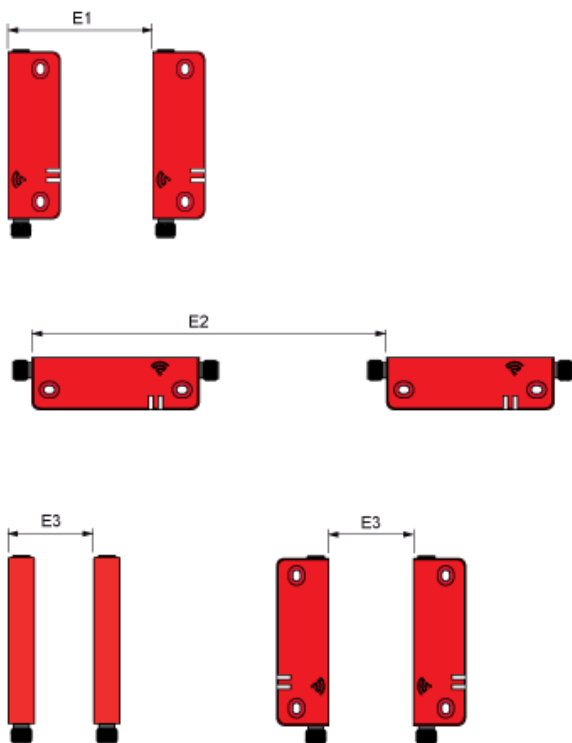
Correct Mounting Configuration



e: 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

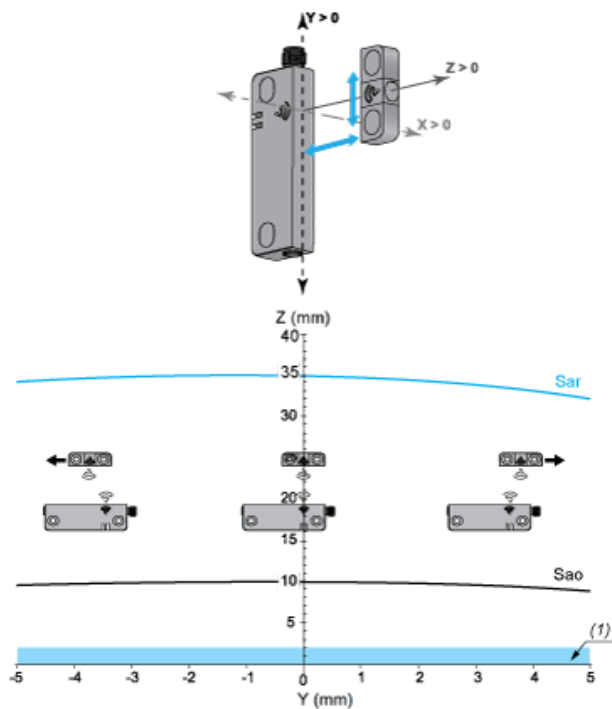
Dimensions in in.

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 $X=0$)

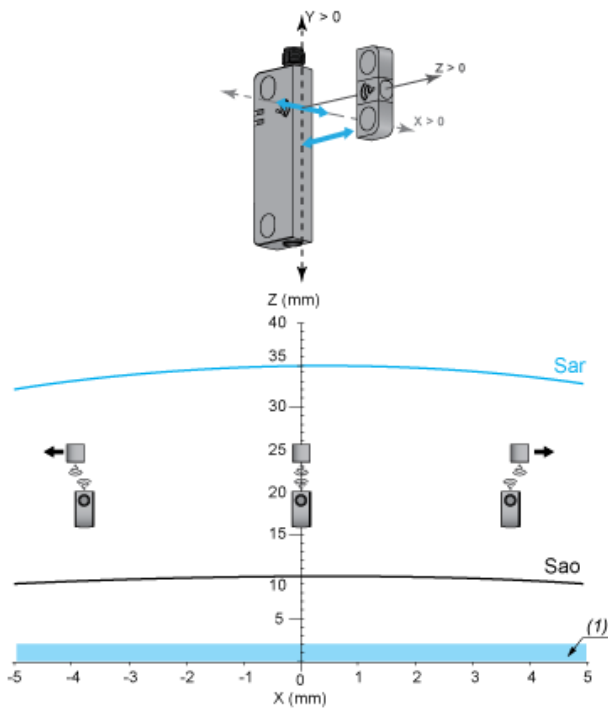


Sar: Assured release distance

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

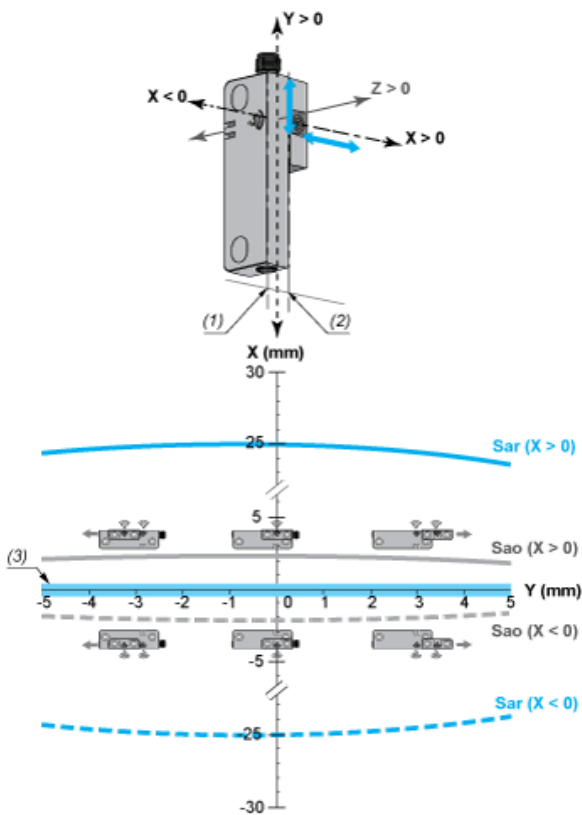
Sao: Assured operating distance

(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

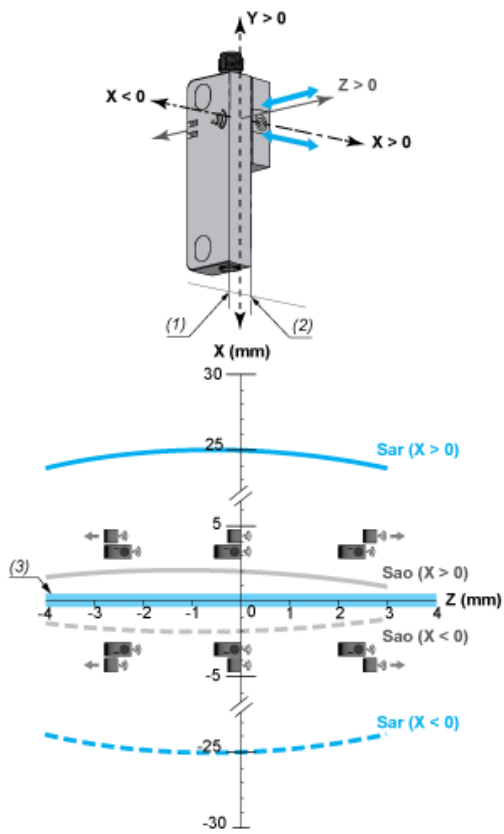
Sao: Assured operating distance

(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.