### Product data sheet Characteristics

# 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

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 (- 2010 %)SELV or PELV conforming to IEC 60204-1	
[le] rated operational current	60 mA	
[Ui] rated insulation voltage	30 V DC	
[Uimp] rated impulse withstand voltage	0.8 kV conforming to 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 IEC 60947-5-3 IEC 60947-5-2	
Product certifications	TÜV[RETURN]FCC[RETURN]E2[RETURN]Ecolab[RETURN]CSA 22-2[RETURN]IC[RETURN]RCM	

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentations in ort intended as a substitute for and is not to be used for determining substitity or reliability or these products for specific user applications. It is the duty of such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither TMSS Holding nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.



Marking	CULus IC EAC TÜV RCM	
	FCC CE	
Safety level	SIL 3 conforming to IEC 61508 SILCL 3 conforming to IEC 62061 PL = e conforming to ISO 13849-1 Category 4 conforming to ISO 13849-1	
Safety reliability data	PFH <sub>D</sub> = 5E-10/h conforming to IEC 62061 PFH <sub>D</sub> = 5E-10/h conforming to ISO 13849-1	
Mission time	20 year(s)	
Ambient air temperature for operation	-2570 °C	
Ambient air temperature for storage	-4085 °C	
Vibration resistance	10 gn (f= 10150 Hz) conforming to IEC 60068-2-6	
Shock resistance	30 gn for 11 ms conforming to IEC 60068-2-27	
Electrical shock protection class	Class III conforming to IEC 61140	
IP degree of protection	IP65 conforming to IEC 60529 IP66 conforming to IEC 60529 IP67 conforming to IEC 60529 IP69K conforming to DIN 40050	

### Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.0 cm
Package 1 Width	11.0 cm
Package 1 Length	15.0 cm
Package 1 Weight	103.0 g
Unit Type of Package 2	S01
Number of Units in Package 2	12
Package 2 Height	15.0 cm
Package 2 Width	15.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	1.425 kg

### Offer Sustainability

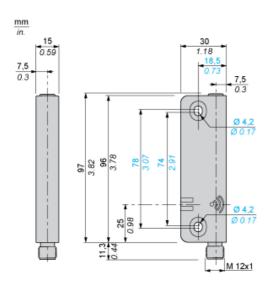
phthalate (DINP), which is known to the State of California to cause c and Di-isodecyl phthalate (DIDP), which is known to the State of Calif	Sustainable offer status	Green Premium product	
phthalate (DINP), which is known to the State of California to cause c and Di-isodecyl phthalate (DIDP), which is known to the State of Calif to cause birth defects or other reproductive harm. For more informatic www.P65Warnings.ca.gov	Circularity Profile	No need of specific recycling operations	
For all Reach Rohs enquiries contact us at sustainability@tesensors.com	California proposition 65	WARNING: This product can expose you to chemicals including: Diisono phthalate (DINP), which is known to the State of California to cause canc and Di-isodecyl phthalate (DIDP), which is known to the State of Californ to cause birth defects or other reproductive harm. For more information g	
	For all Reach Rohs enquiries contact us at	sustainability@tesensors.com	



## Product data sheet Dimensions Drawings

# XCSRC31MM12

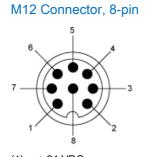
Dimensions





# XCSRC31MM12

#### Connections

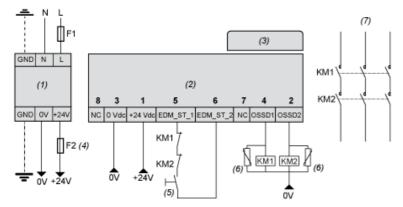


- + 24 VDC OSSD2 (1)
- (2) (3) (4) 0 VDC
- OSSD1
- (5) (6) EDM\_ST\_1
- EDM\_ST\_2
- NC (Not connected) (7) (8) NC (Not connected)

#### Connections

#### Wiring Diagram

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

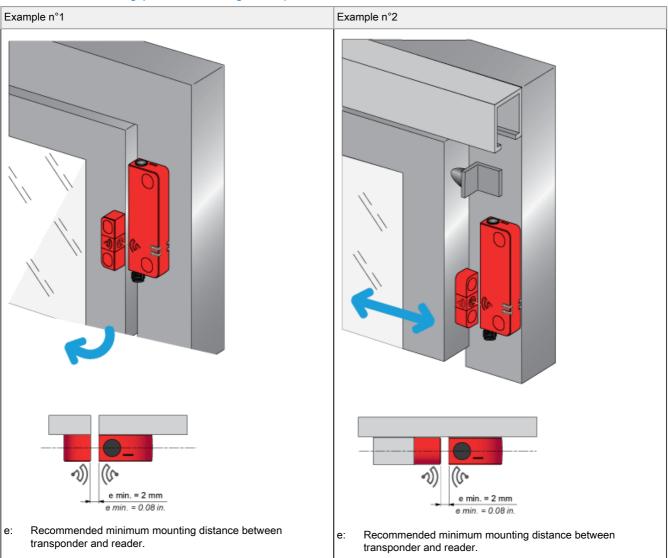


- Power Supply (1)
- (2) (3) Reader
- Transponder
- (4) 1 A max. (5) Restart
- (6) Use of arc suppressors for KM1 and KM2 is recommended.
- Power circuit (7)
- NOTE: KM1 and KM2 contactors must have force-guided contacts.



# XCSRC31MM12

#### Mounting and Clearance

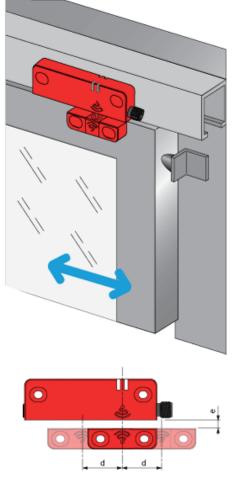


#### Face to Face Mounting (Preferred Configuration)



#### Face to Face Mounting (Preferred Configuration)

Example n°3



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

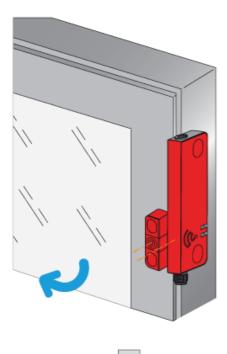
min.

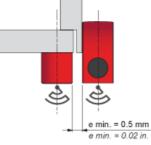
d: Detection limit

#### Mounting and Clearance

Side by Side Mounting Correct Mounting Configuration



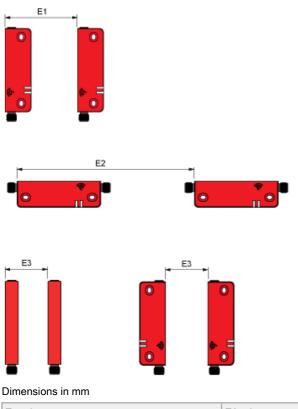




e: Recommended minimum mounting distance between transponder and reader.

### Mounting and Clearance

### Minimum Mounting Clearances between Safety Switches



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



Dimensions in in.

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

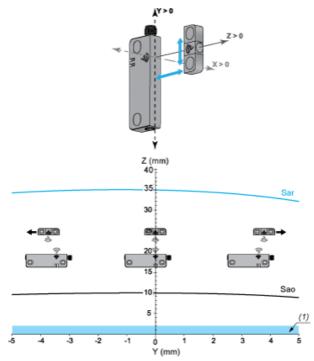


# XCSRC31MM12

#### **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)



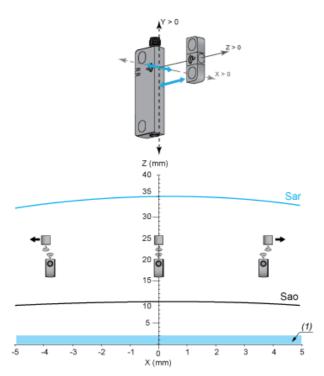
Sar: Assured release distance

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

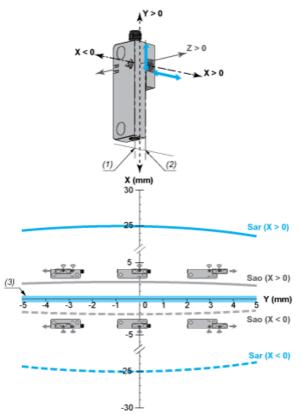
Sao: Assured operating distance

(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)



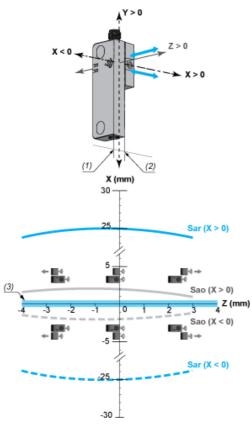
Sar: Assured release distance

Sao: Assured operating distance

- X=0 for X<0 (1)
- (2) (3) X=0 for X>0

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</li>
  (2) X=0 for X>0
  (3) Recommended minimum meta

- Recommended minimum mounting distance between transponder and reader.

