

# XCSRC30M12

Preventa RFID safety switch, Telemecanique  
Safety switches XCS, Single contactless Single  
model, 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<br>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                          | 5  |
| Local signalling                         | Green, orange and red 2 multi-colour LEDs                  |
| [Sao] assured operating sensing distance | 0.39 in (10 mm) face to face                               |
| [Sar] assured release sensing distance   | 1.38 in (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 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   |
| Response time                            | 120 ms typical   |
| Maximum delay first up                   | 5 s  |
| Tightening torque                        | < 1.5 N.m  |
| Standards                                | EN/IEC 60947-5-3<br>EN/IEC 60947-5-2<br>ISO 14119          |
| Product Certifications                   | EAC<br>E2<br>IC<br>RCM<br>CSA 22-2<br>FCC<br>TÜV<br>Ecolab |

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|                                       |  |
|---------------------------------------|--|
| Marking                               | TÜV<br>FCC<br>EAC<br>RCM<br>CULus<br>IC<br>CE  |
| Safety level                          | SIL 3 EN/IEC 61508<br>SILCL 3 EN/IEC 62061<br>PL = e EN/ISO 13849-1<br>Category 4 EN/ISO 13849-1                                       |
| Safety reliability data               | PFH<SUB>D</SUB> = 5E-10/h EN/IEC 62061<br>PFH<SUB>D</SUB> = 5E-10/h EN/ISO 13849-1   |
| Mission time                          | 20 year(s)   |
| Ambient Air Temperature for Operation | -13...158 °F (-25...70 °C)   |
| Ambient Air Temperature for Storage   | -40...185 °F (-40...85 °C)   |
| Vibration resistance                  | 10 gn 10...150 Hz)EN/IEC 60068-2-6   |
| Shock resistance                      | 30 gn 11 ms EN/IEC 60068-2-27  |
| Electrical shock protection class     | Class III EN/IEC 61140   |
| IP degree of protection               | IP65 conforming to EN/IEC 60529<br>IP66 conforming to EN/IEC 60529<br>IP67 conforming to EN/IEC 60529<br>IP69K conforming to DIN 40050 |





### Ordering and shipping details

|                       |                             |
|-----------------------|-----------------------------|
| Category              | 22455-LIGHT CURTAINS - XUSL |
| Discount Schedule     | DS2                         |
| GTIN                  | 3389119634854               |
| Nbr. of units in pkg. | 1                           |
| Package weight(Lbs)   | 3.74 oz (106.0 g)           |
| Returnability         | No                          |
| Country of origin     | FR                          |

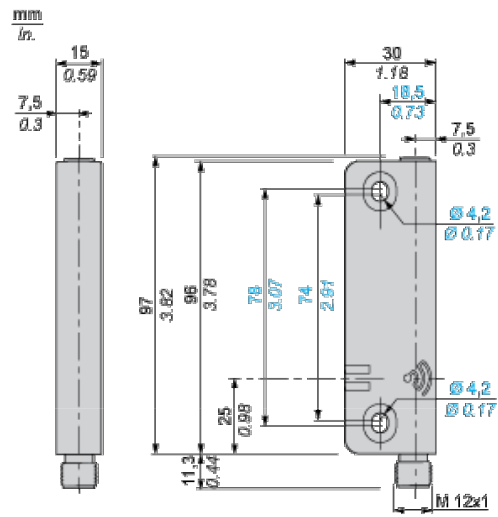
### Packing Units

|                              |                       |
|------------------------------|-----------------------|
| Unit Type of Package 1       | PCE                   |
| Package 1 Height             | 1.65 in (4.2 cm)      |
| Package 1 width              | 5.79 in (14.7 cm)     |
| Package 1 Length             | 6.42 in (16.3 cm)     |
| Unit Type of Package 2       | S01                   |
| Number of Units in Package 2 | 12                    |
| Package 2 Weight             | 5.00 lb(US) (2.27 kg) |
| Package 2 Height             | 5.91 in (15 cm)       |
| Package 2 width              | 5.91 in (15 cm)       |
| Package 2 Length             | 15.75 in (40 cm)      |
| Package 3 Height             | 5.91 in (15 cm)       |

### Offer Sustainability

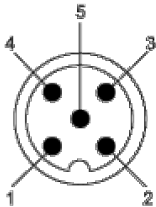
|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation           |  <a href="#">REACH Declaration</a>   |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)  <a href="#">EU RoHS Declaration</a>  |
| Mercury free               | Yes   |
| RoHS exemption information |  <a href="#">Yes</a>   |
| Environmental Disclosure   |  <a href="#">Product Environmental Profile</a>   |

## Dimensions



Connections

M12 Connector, 5-pin

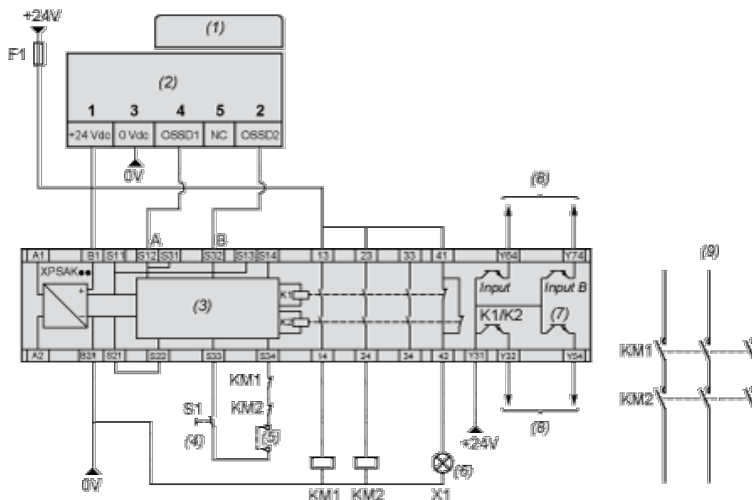


- (1) + 24 VDC
- (2) OSSD2
- (3) 0 VDC
- (4) OSSD1
- (5) NC (Not connected)

Connections

Wiring Diagram: Connection to a Safety Relay

Cat. 4 / PL=e (EN/ISO 13849-1) / SIL3 (IEC 61508) / SILCL3 IEC 62061), if combined with an appropriate Preventa XPS Safety unit PL=e / SIL3



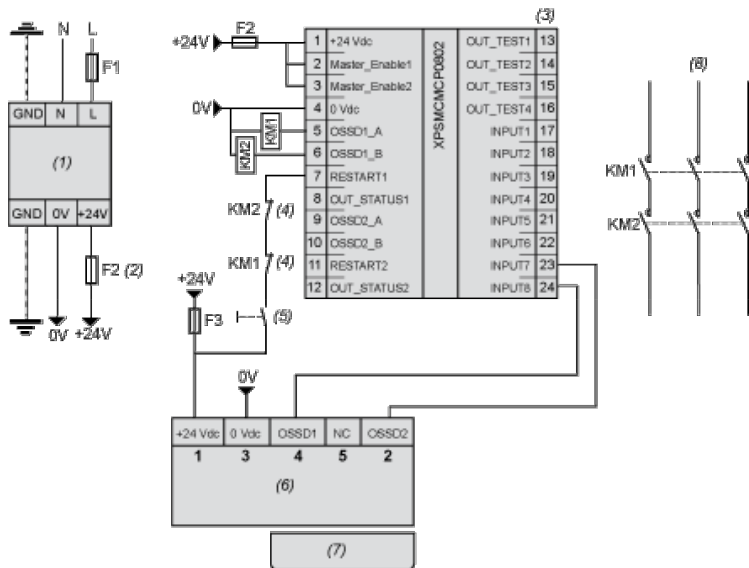
- (1) Transponder
- (2) Reader
- (3) Logic
- (4) Start
- (5) ESC: External start conditions
- (6) H1: indicator light deactivated
- (7) Fuse. Operating status of internal electronic fuse
- (8) To PLC
- (9) Power circuit

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

Connections

Wiring Diagram: Connection to a Safety Controller

Cat. 4 / PL=e (EN/ISO 13849-1) / SIL3 (IEC 61508) / SILCL3 IEC 62061), if combined with an appropriate Preventa XPS Safety controller PL=e / SIL3

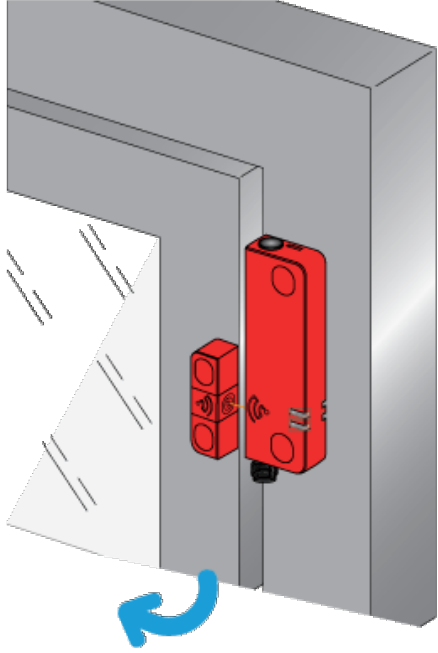
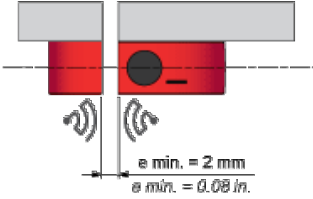
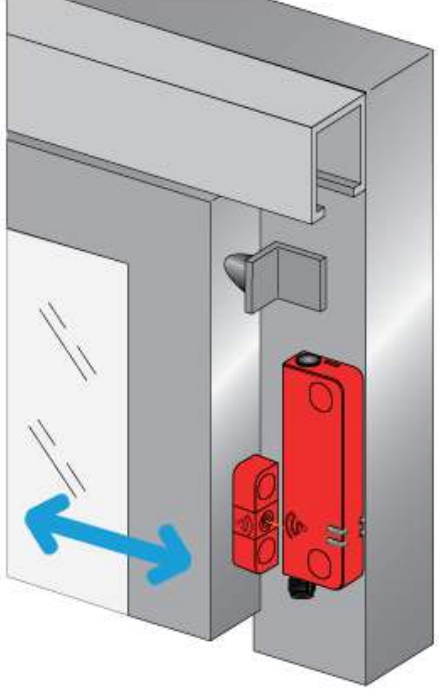
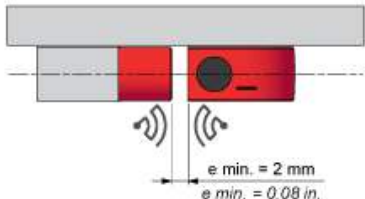


- (1) Power supply
- (2) 1 A max.
- (3) Safety controller
- (4) Feedback
- (5) Restart
- (6) Reader
- (7) Transponder
- (8) Power circuit

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

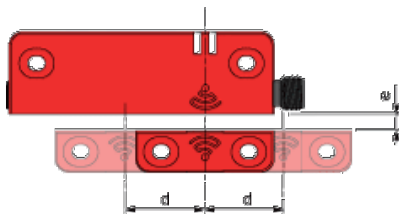
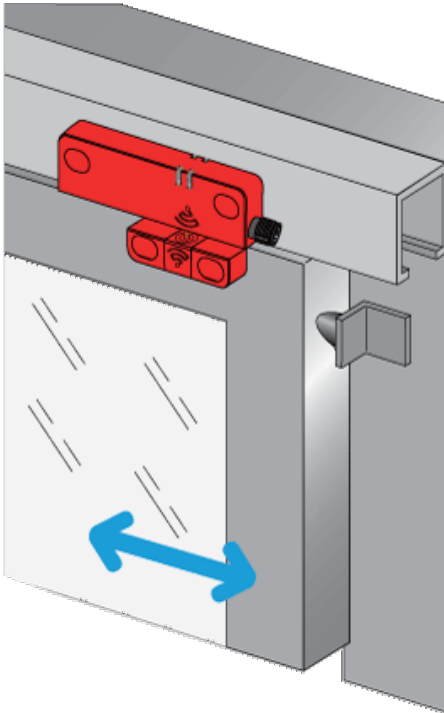
Mounting and Clearance

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

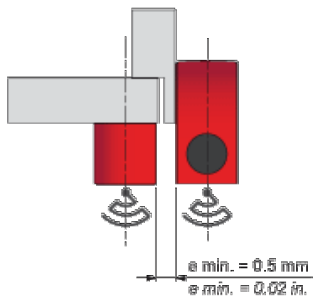
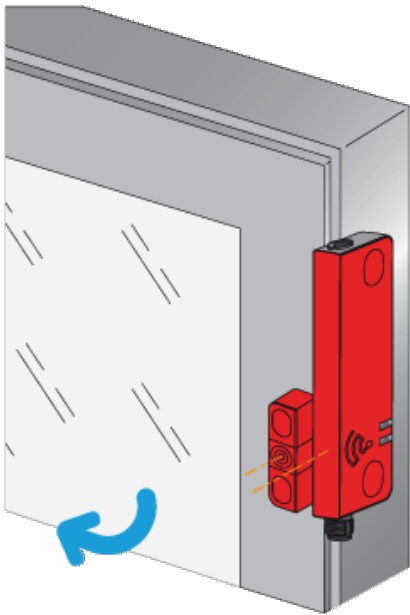
d : Detection limit

## Mounting and Clearance

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### Side by Side Mounting

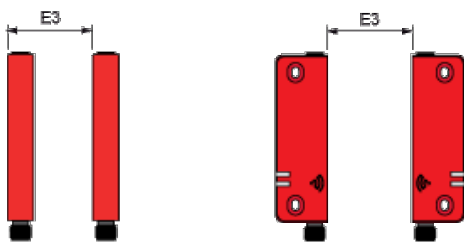
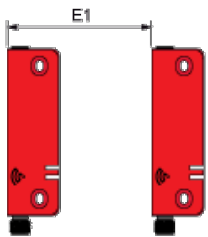
Correct Mounting Configuration



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      |



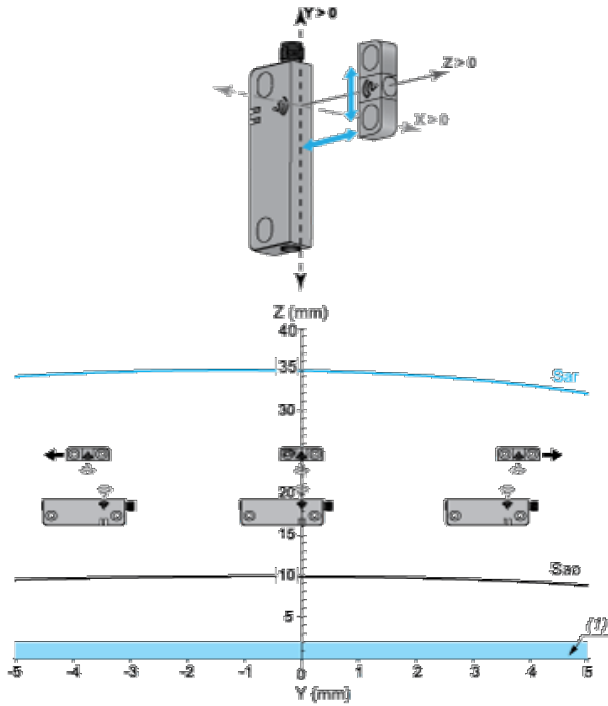
Dimensions in in.

| 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)

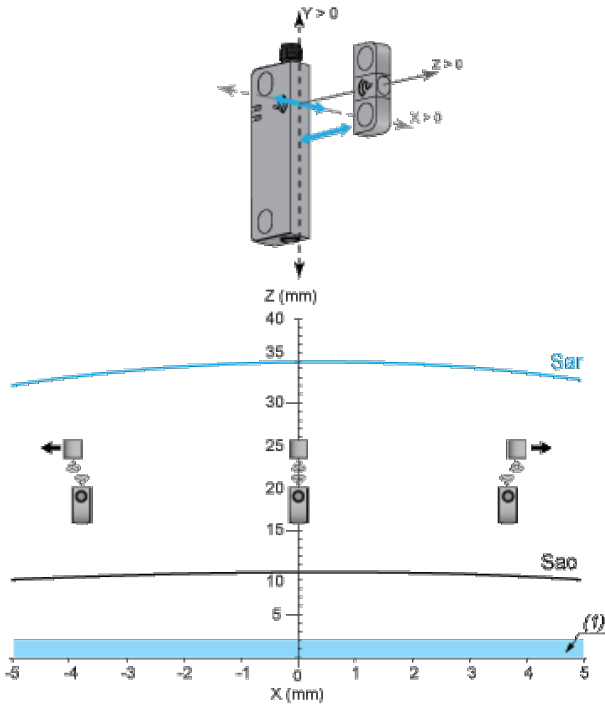


Sar: Assured release distance

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)

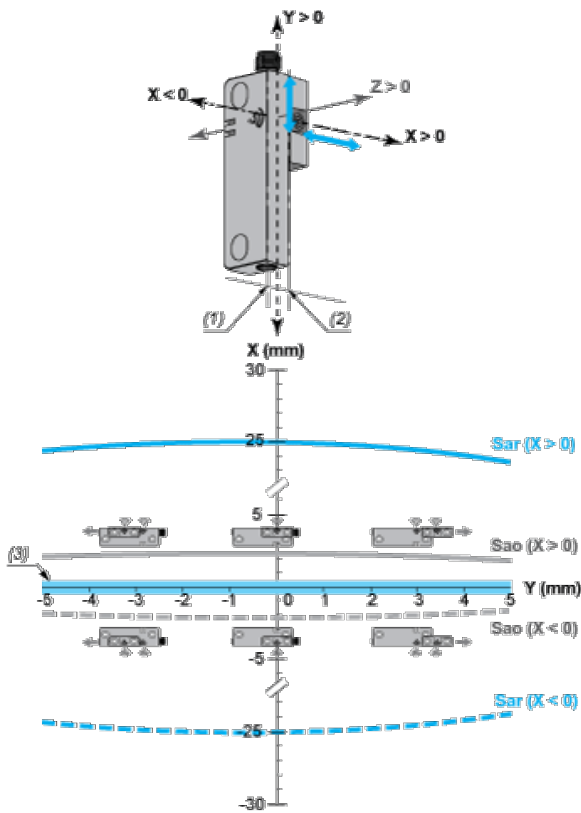


Sar: Assured release distance  
 Sao: Assured operating distance  
 (1) Recommended minimum mounting distance between transponder and reader.

## Detection Curves

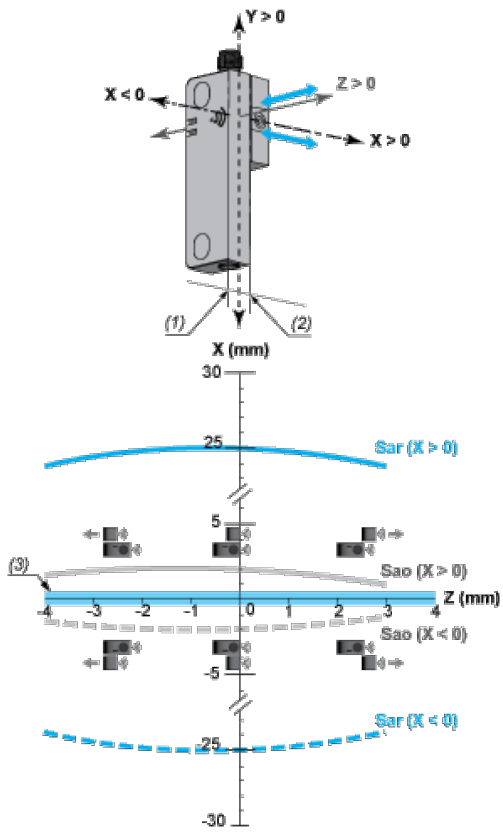
### Side by Side Mounting

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.