

Preventa RFID safety switch, Telemecanique  
Safety switches XCS, contactless Standalone  
model EDM+Manual Start Unique pairing



## 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                          | 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 IEC 60204-1                    |
| [Ie] 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<br>IEC 60947-5-3<br>IEC 60947-5-2                                    |
| Product certifications                   | TÜV[RETURN]Ecolab[RETURN]CSA<br>22-2[RETURN]RCM[RETURN]FCC[RETURN]E2[RETURN]IC |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any 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 TWSS Holding nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

|                                       |  |
|---------------------------------------|--|
| Marking                               | TÜV<br>FCC<br>IC<br>EAC<br>CE<br>RCM<br>CULus  |
| Safety level                          | SIL 3 conforming to IEC 61508<br>SILCL 3 conforming to IEC 62061<br>PL = e conforming to ISO 13849-1<br>Category 4 conforming to ISO 13849-1 |
| Safety reliability data               | PFH<SUB>D</SUB> = 5E-10/h conforming to IEC 62061<br>PFH<SUB>D</SUB> = 5E-10/h conforming to 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 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<br>IP66 conforming to IEC 60529<br>IP67 conforming to IEC 60529<br>IP69K conforming to DIN 40050                |

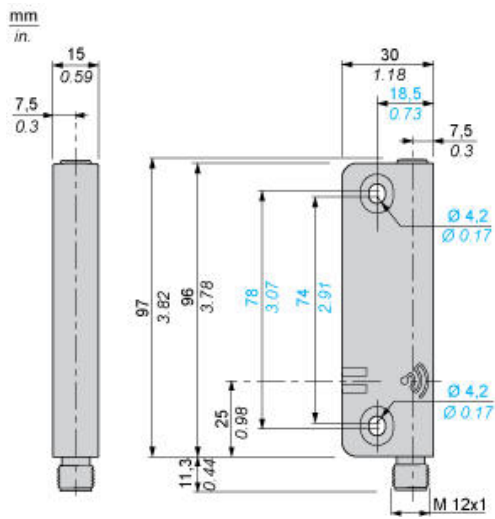
### Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 1.0 cm   |
| Package 1 Width              | 5.0 cm   |
| Package 1 Length             | 10.0 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             | 1.429 kg |

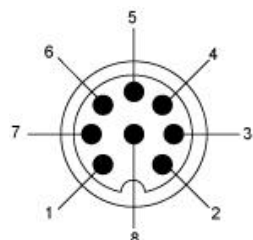
### Offer Sustainability

|  |   |
|--|---|
| Sustainable offer status                   | Green Premium product   |
| Circularity Profile                        | No need of specific recycling operations  |
| 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> |
| For all Reach Rohs enquiries contact us at | <a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>  |

## Dimensions

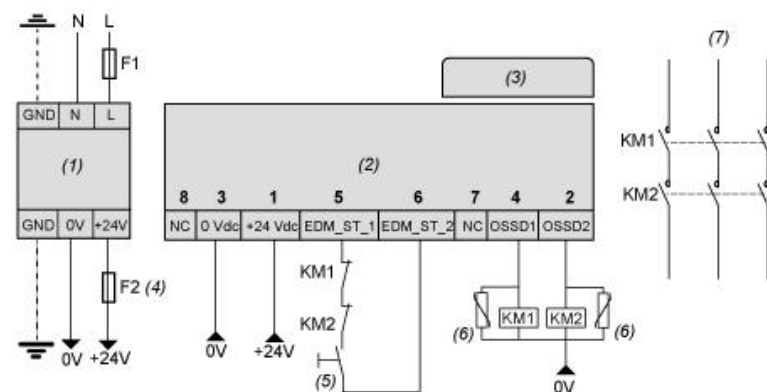


### M12 Connector, 8-pin



- ## Connections

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

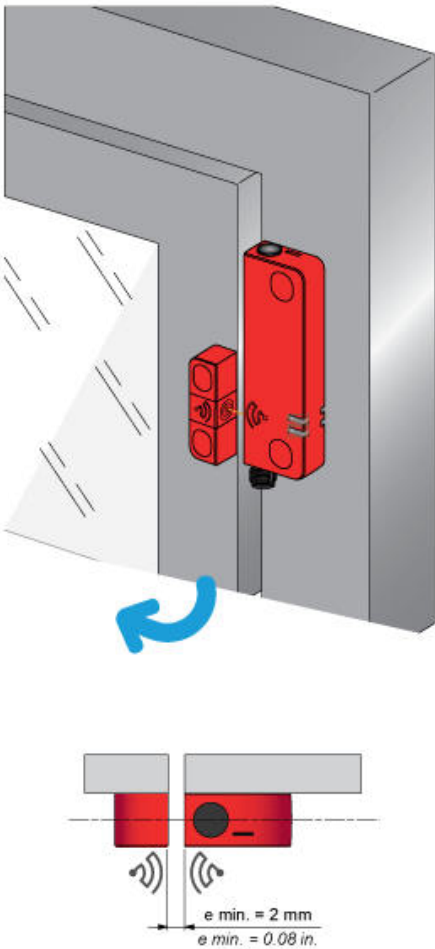
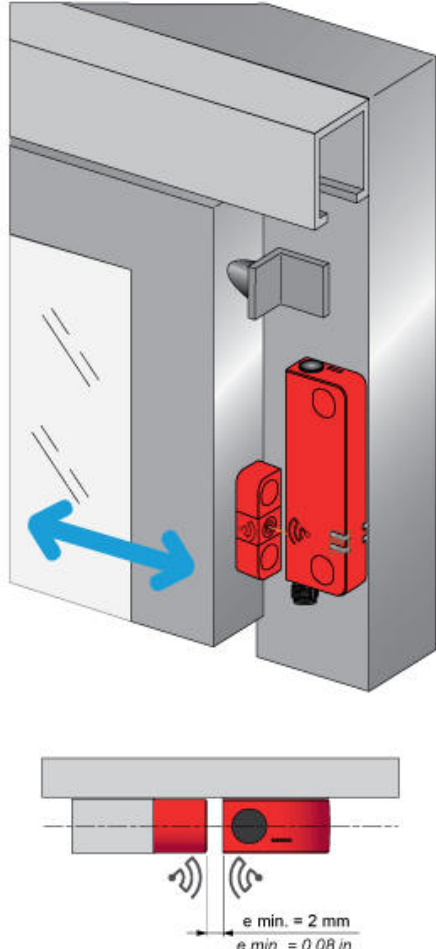


- (1) Power Supply
- (2) Reader
- (3) Transponder
- (4) 1 A max.
- (5) Restart
- (6) Use of arc suppressors for KM1 and KM2 is recommended.
- (7) Power circuit

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

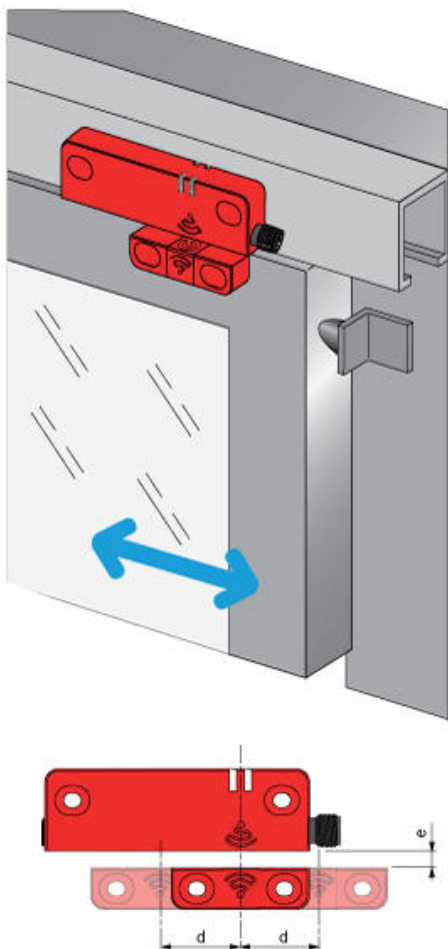
## Mounting and Clearance

### 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



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

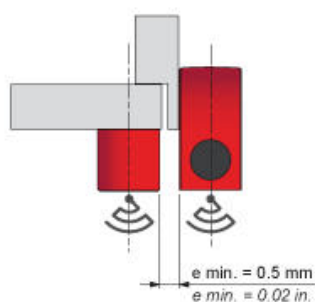
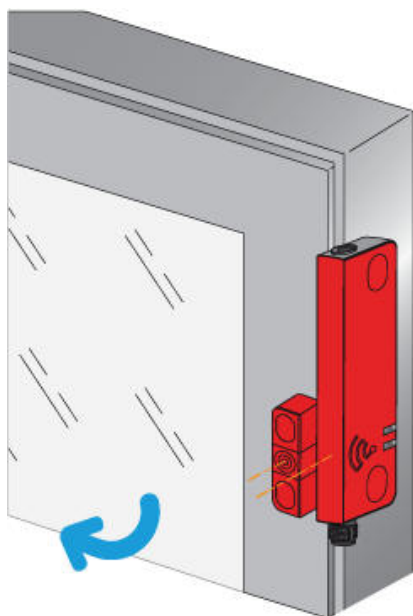
$d$  : Detection limit

## Mounting and Clearance

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### Side by Side Mounting

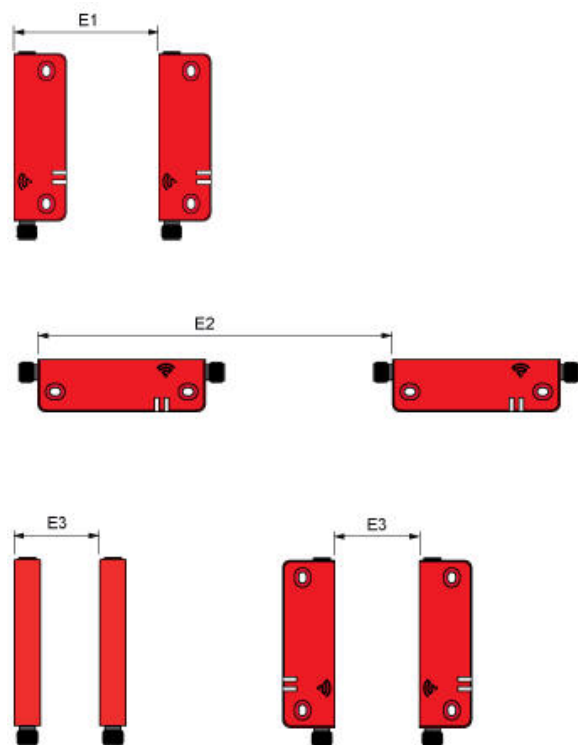
Correct Mounting Configuration



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.

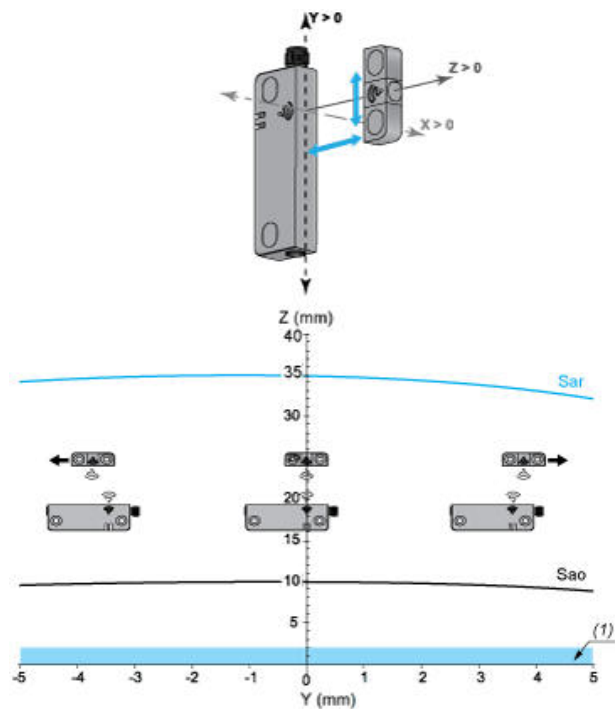
| E1 min. | E2 min. | E3 min. |
|---------|---------|---------|
| 1.77    | 5.91    | 2.56    |



## 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)

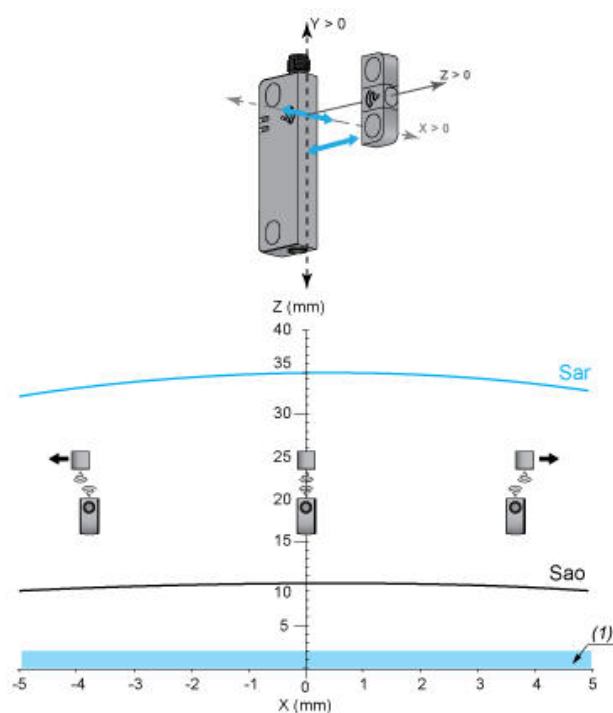


Sar: Assured release distance

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

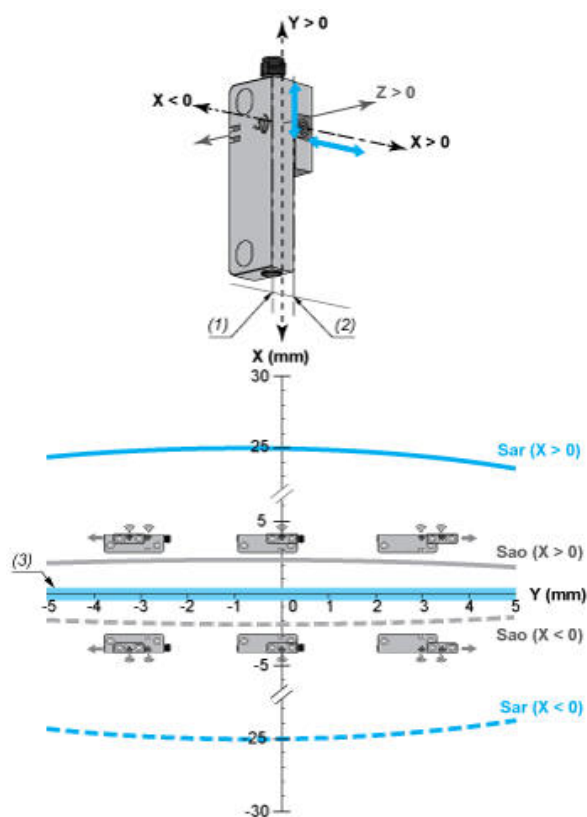
Sao: Assured operating distance

(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

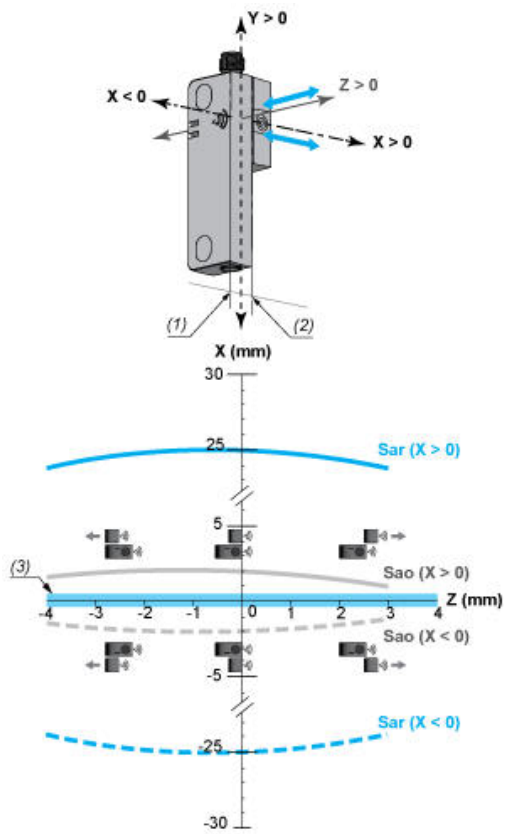
Sao: Assured operating distance

(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.