Product data sheet
Characteristics

XCSRC31AM12
Preventa RFID safety switch, Telemecanique Safety switches XCS, contactless Standalone model EDM+Auto 2new 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 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	IEC 60947-5-3 IEC 60947-5-2 ISO 14119
Product certifications	TÜV[RETURN]CSA 22-2[RETURN]E2[RETURN]IC[RETURN]Ecolab[RETURN]RCM[RETURN]FCC

Marking	EAC CE FCC RCM IC TÜV CULus
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_D = 5E-10/h conforming to IEC 62061 PFH_D = 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 IP66 conforming to IEC 60529 IP67 conforming to IEC 60529 IP69K conforming to DIN 40050

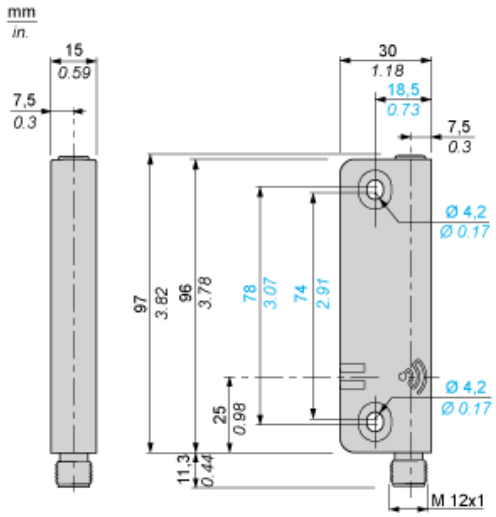
Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	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	1.425 kg

Offer Sustainability

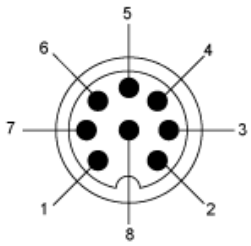
Sustainable offer status	Green Premium product
Circularity Profile	No need of specific recycling operations
California proposition 65	WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and Di-isodecyl phthalate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

Dimensions


mm
in.
15
0.59
7,5
0.3
30
1.18
18,5
0.73
7,5
0.3
Ø 4,2
Ø 0.17
Ø 4,2
Ø 0.17
97
3.82
96
3.78
78
3.07
74
2.91
25
0.98
11,3
0.44
M 12x1

Connections

M12 Connector, 8-pin

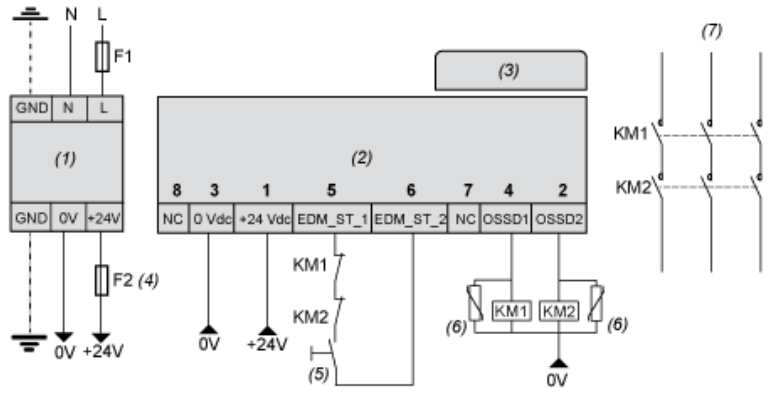


(1) + 24 VDC
(2) OSSD2
(3) 0 VDC
(4) OSSD1
(5) EDM_ST_1
(6) EDM_ST_2
(7) NC (Not connected)
(8) NC (Not connected)

Connections

Wiring Diagram

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

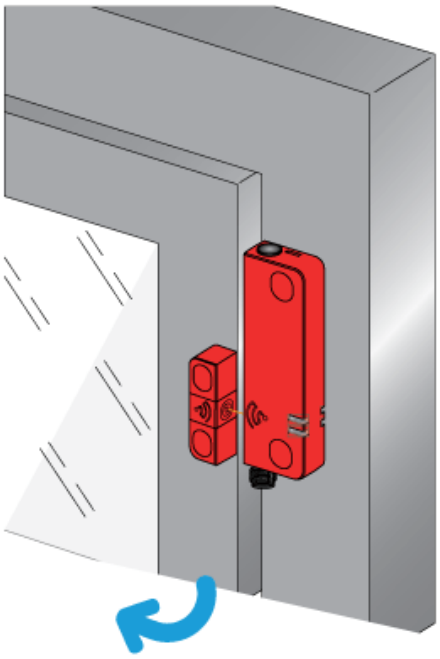
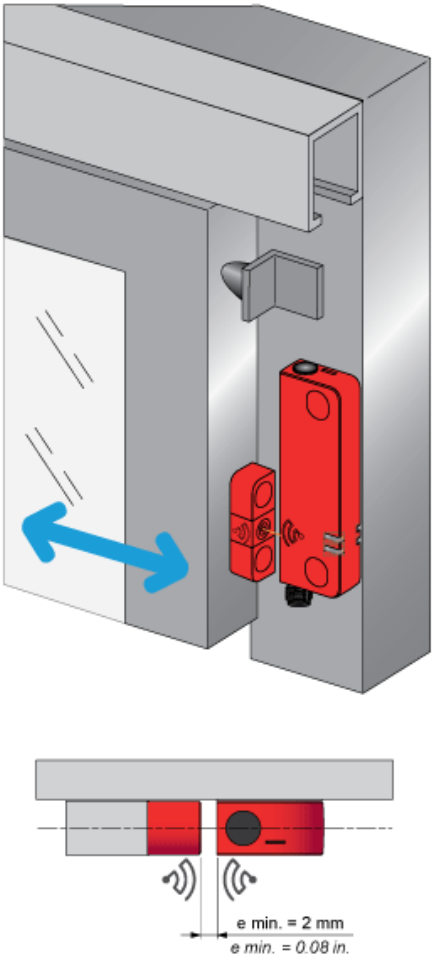


(1) Power Supply
(2) Reader
(3) Transponder
(4) 1 A max.
(5) Restart
(6) Use of arc suppressors for KM1 and KM2 is recommended.
(7) Power circuit

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

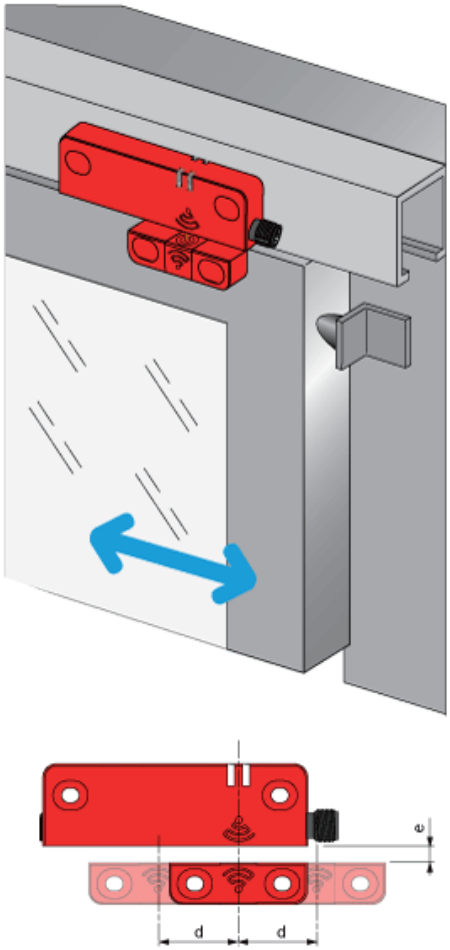
Mounting and Clearance

Face to Face Mounting (Preferred Configuration)

Example n°1	Example n°2
	
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

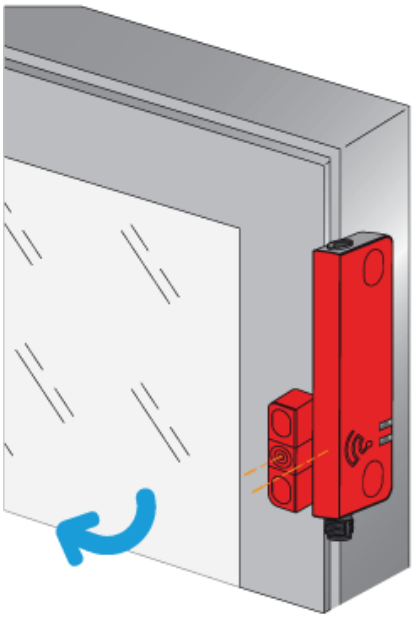


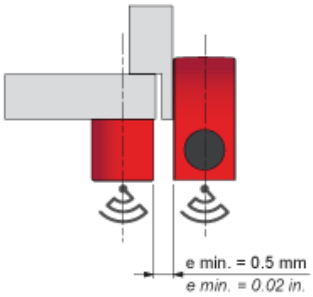
e > 2 mm. (e: recommended minimum mounting distance between transponder and reader)
min.
d : Detection limit

Mounting and Clearance

Side by Side Mounting

Correct Mounting Configuration

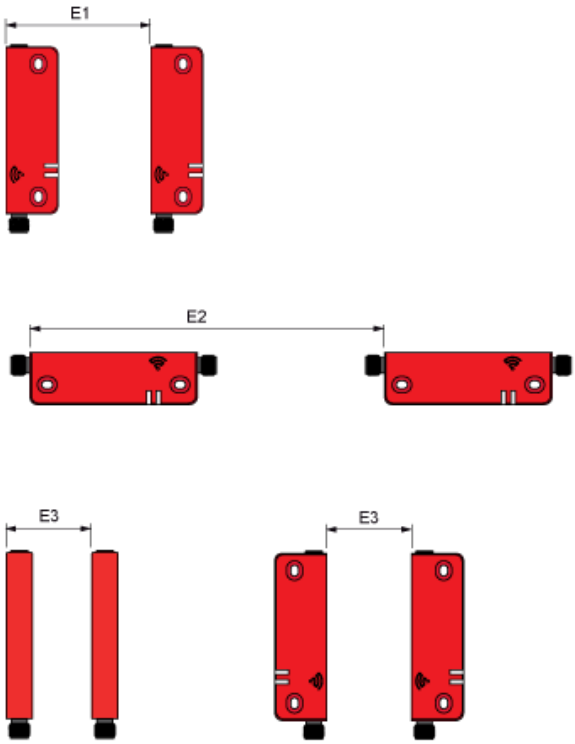




e: Recommended minimum mounting distance between transponder and reader.

Mounting and Clearance

Minimum Mounting Clearances between Safety Switches



Dimensions in mm

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

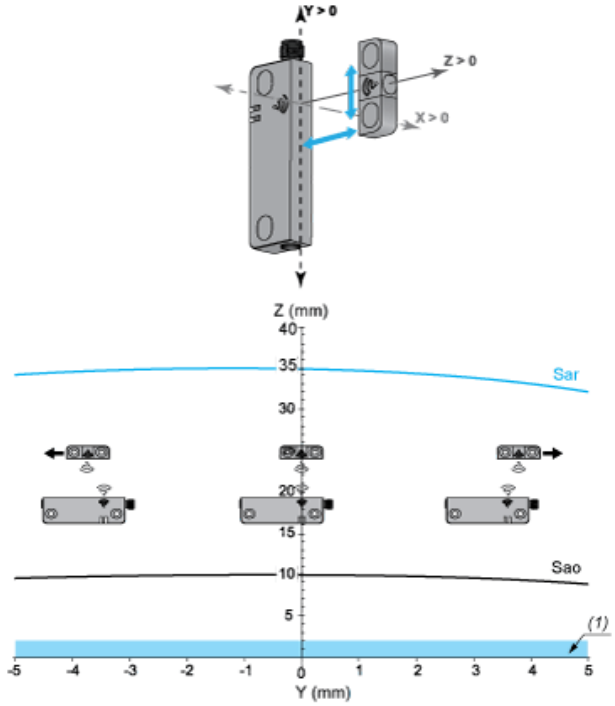
Dimensions in in.

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

Detection Curves

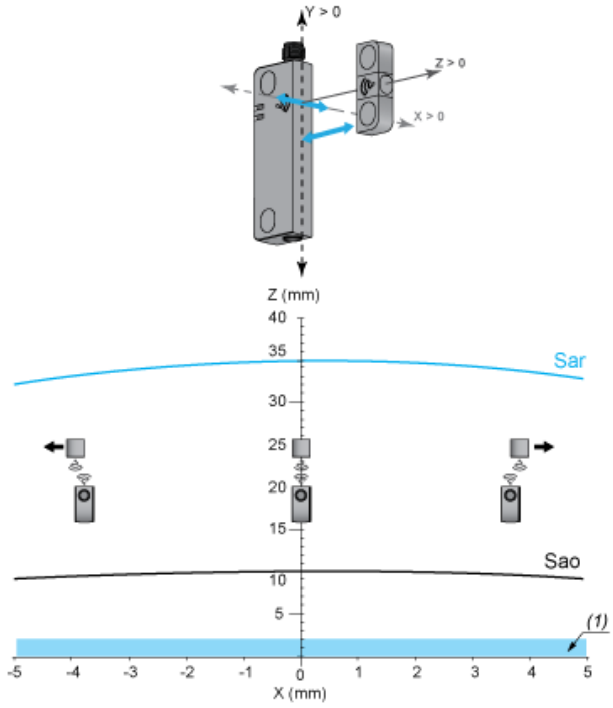
Face to Face Mounting (Preferred Configuration)

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)

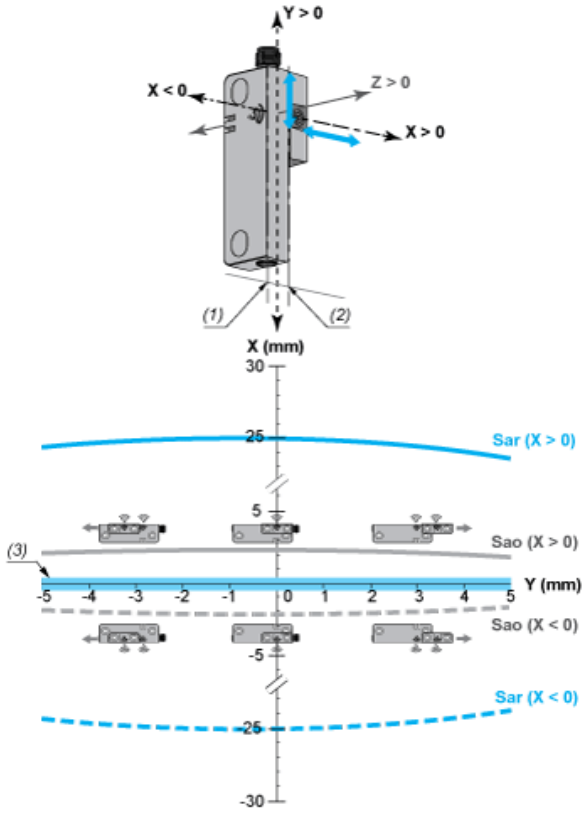


Sar: Assured release distance
Sao: Assured operating distance
(1) Recommended minimum mounting distance between transponder and reader.

Detection Curves

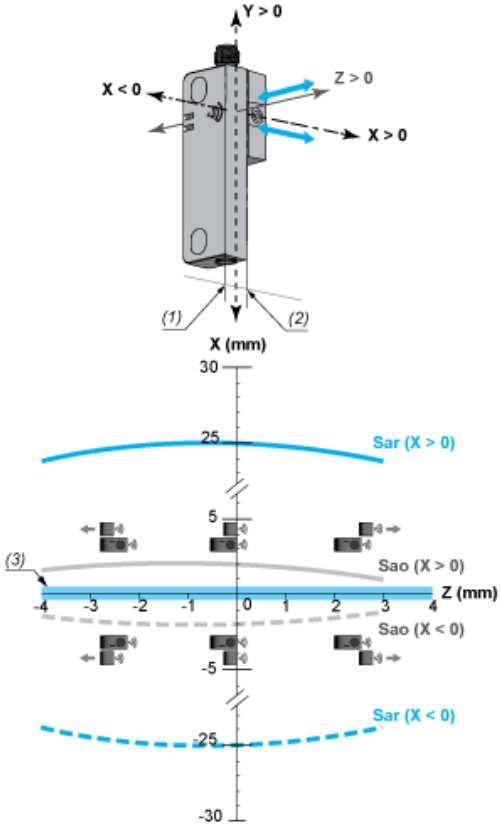
Side by Side Mounting

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.