



SSP

Safety System Products

SAFIX Set I3-X-5M

RFID Safety Sensor, high coded, EDM, man. reset, 5m

Your advantages

- PLe according to EN ISO 13849-1
- IP69K and ECOLAB
- Series connection of up to 30 sensors without reduction in safety
- No special analysis system required
- LED diagnosis
- Single information signal for diagnosis
- Highly coded according to EN ISO 14119 (version I3 and W3)
- Small compact design
- Different cable lengths
- Fastest sensor available (risk time)



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we simplify safety

SAFIX Set I3-X-5M

The new SAFIX 3 RFID safety sensor impresses due to its compact design and a hole distance of 22 mm. It can be actuated from the front and both sides and is available in 3 different versions with a choice of low level or high level coding according to EN ISO 14119. The sensor has protection class IP69K, holds an ECOLAB approval and can either be purchased with an M12, 8-pin pigtail cable or a fixed cable length of 5 or 10 metres.

Thanks to its OSSD output signals, the sensor can be connected to all standard control and safety relays. A total of up to 30 sensors can be switched in series. An information signal and a three colour LED display on the sensor are provided for diagnosis purposes.

General data

Type designation	SAFIX Set I3-X-5M
Item number	SP-E-76-000-52
Functional type	RFID safety sensor
Service life TM (EN ISO 13849-1)	20 Years
Coding levels	Individually coded

Safety data

Performance Level (EN ISO 13849)	PL _e
Category (EN ISO 13849-1:2015)	cat. 4
SIL (acc. IEC 62061)	SIL3, SILCL3
PFHd (EN ISO 13849)	2,24 x 10 ⁻⁹
Approvals	TÜV_SÜD, CE

Environmental conditions

Max. storage temperature	-25 ... +70 °C
Max. operating temperature	-25 ... +70 °C
Contamination level	2

Electrical data

Overvoltage category	II
Rated impulse withstand voltage U _{imp}	1 kV

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Electrical service life (nominal load)	20 Years
Design / Connections	5m fixed cable open end
Supply voltage	24 V DC +/- 10% V
Rated insulation voltage Ui	50 V
Power consumption in ambient conditions	23,75 W
No-load current I0	(not activated) 10 mA / (activated) 30 mA
Max. voltage (VDC)	1 A
Switching frequency	3
LED lighting	3 Colors
Utilisation category	D-12/DC-13
Risk time	75 ms
Series connection	30

Pin assignment according DIN 47100

BN	UB
WH	safety input 1
BU	GND
BK	safety output 1
GY	diagnostic output
PK	safety input 2
VT	safety output 2
OG	EDM/Start-input

Mechanical data

Dimensions

Width	36 mm
Length	13 mm
Height	26 mm
Torque (mounting nut)	0,7 Nm
Mounting	Screw connection with M4 screws (countersunk)
Housing material	PBT
Shock resistance	30 g/11 ms
Vibration resistance	Amplitude 1 mm, 10 ... 55 Hz
Switching distance Sn	12 mm

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Assured switching distance ON S(ao)	8 mm
Assured switching distance OFF S(ar)	18 mm
Hysteresis	2 mm
Repeat accuracy R	< 0,5 mm

LED diagnostics

Advanced LED diagnosis

Extended LED-Diagnosis

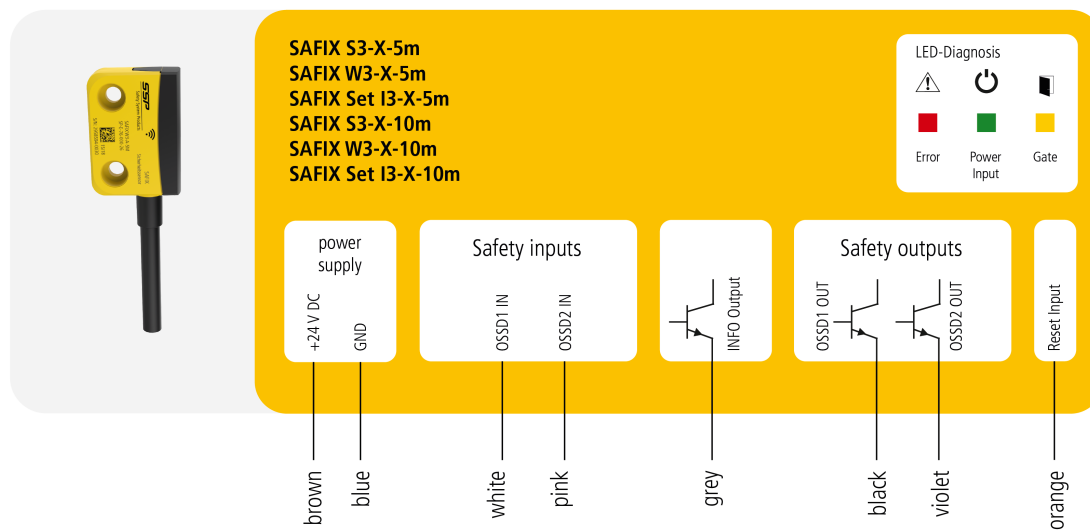
Green	Red	Yellow	Remark
off 	off 	on 	Sensor not actuated, voltage applied
on 	off 	off 	Sensor actuated, all inputs set correctly
flashes 	off 	off 	Sensor actuated, safety inputs not set (low level)
flashes 	off 	off 	Safety inputs set (high level), waiting for start pulse
off 	off 	flashes 	Actuator at the reception limit
off 	off 	flashes 	Teach in process

Green	Red	Yellow	Remark
off 	flashes 	off 	Error safety outputs
off 	flashes 	off 	Error safety inputs
off 	flashes 	off 	Error safety inputs. EDM automatic: Safety relay fault. EDM manual: Faulty start impulse
off 	flashes 	off 	Overvoltage and undervoltage fault
off 	flashes 	off 	Temperature outside the permitted range
off 	flashes 	off 	Wrong actuator
off 	on 	off 	Permanent light Internal device error

SAFIX Set I3-X-5M

Electrical drawings

Connection drawing



SAFIX Set I3-X-5M

Connection example 2

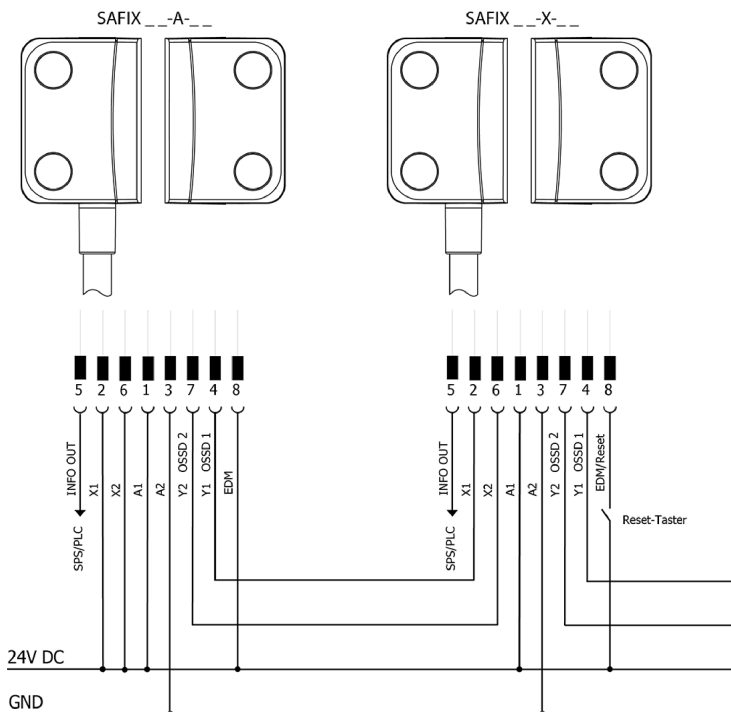


Figure 8: Input from a rest button + every door circuit can be acknowledged, SAFIX __-X-__
Series connection of multiple SAFIX sensors with manual reset.

The reset button always has to be connected to the last sensor. (SAFIX __-X-__)

All other sensors must be used with the automatic start variation (SAFIX __-A-__)

SAFIX Set I3-X-5M

Connection example 1

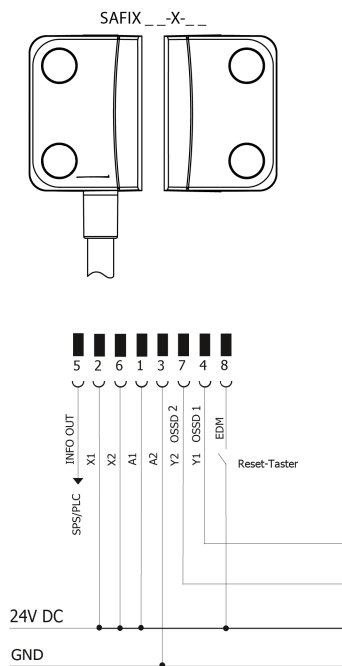


Figure 7: Input from a reset button

Monitored for the EMD input variation (SAFIX __-X-__)

The inputs X1 and X2 are supplied with 24 V DC. The outputs Y1 and Y2 are included in the analysis. The diagnosis output can be connected, for example, to an SPS.

The input EDM waits for a start pulse duration between 30 ms and 5 s.

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Connection example 3

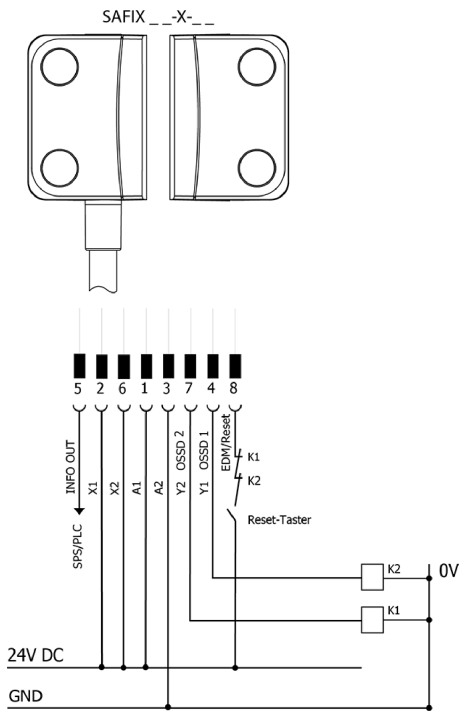


Figure 9: Direct connection of two protections according to PL e, SAFIX __-X-__
 The inputs X1 and X2 are supplied with 24 V DC. The outputs Y1 and Y2 are included in the analysis. The diagnosis output can be connected, for example, to an SPS.
 The EDM input waits for a start pulse duration between 30 ms and 5 s. The return circuits from protections K1 and K2 are also connected to the EDM input.

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Connection example 4

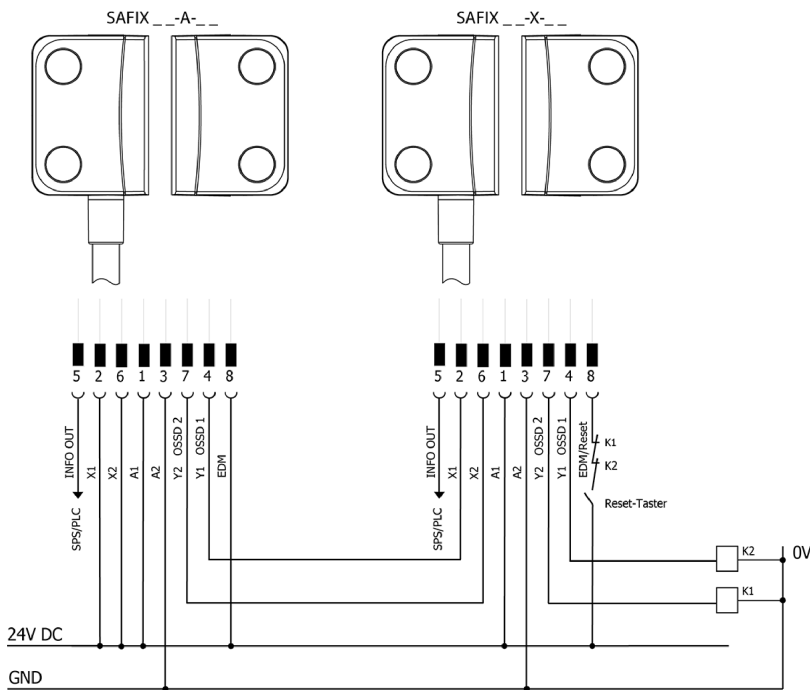
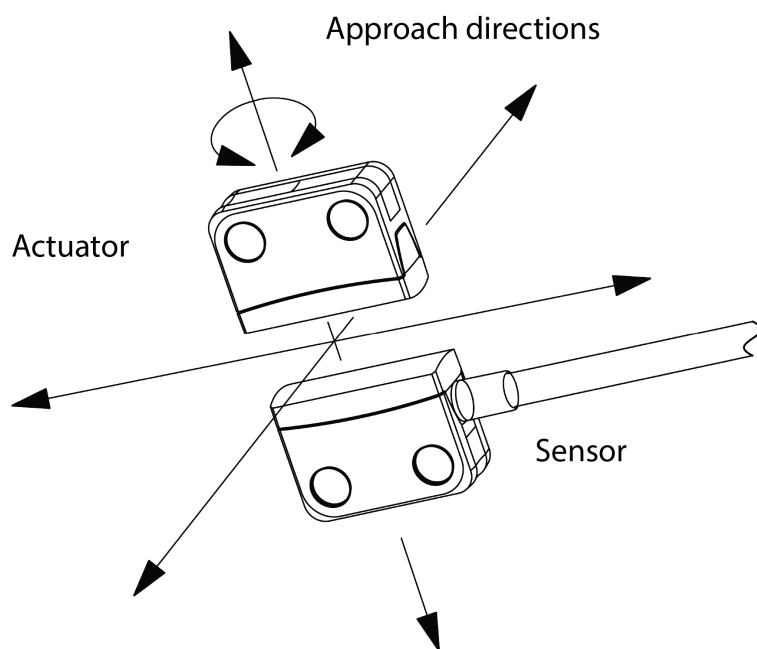


Figure 10: Direct connection of two protections according to PL e, SAFIX __-A-__ & SAFIX __-X-__
The EDM input waits for a start pulse duration between 30 ms and 5 s. The return circuits from protections K1 and K2 are also connected to the EDM input.

SAFIX Set I3-X-5M

Drawings

Assembly



Equipment

Safe control technology

	MOSAIC M1	1019811	
Standard safety relay 1 safety function	S2 series	1019455	

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Time delay safety relay 1 safety function

T2 series

1019456



Multi-function safety relay 2 safety functions

X2 series

1019457



Wireless Safety

Safety Simplifier | for SAFIX

S14LDRB-H08-E2-I1-Q1A0-Q

1030122

2A0-Q3C0-Q4I0-W38



Safety Simplifier | for SAFIX

S14LDRB-H09-E2-I1-I1-Q1A0-

1030123

Q2A0-Q3C0-Q4I0-W39



Safety Simplifier | for SAFIX

S14LDRB-H0A-E2-I1-I1-Q1

1030124

A0-Q2A0-Q3C0-Q4I0-W40



Safety switches

Standard-Actuator for SAFIX 3

SAFIX T5

1019317



Flat actuator for SAFIX 3

SAFIX T6

1019331



SAFIX Set I3-X-5M

Mounting

SAFIX Z B5

SP-K-71-000-08



Passive distributor

XCONN P6-M12-10m

1027828



Passive distributor

XCONN P6-M12-M23

1027825



Y distributor

XCONN Y2-M12

1022403



Passive distributor

XCONN P6-M12-5m

1027824



Downloads

- Operating manual
- CAD Data
- SISTEMA - Data V 4.1
- Certificate
- CAD Data
- Product line
- Catalog
- Catalog packaging systems
- Certificate
- EPLAN-Data