



SSP

Safety System Products

SAFIX W3-X-P

RFID Safety Sensor, high coded, EDM, man. reset, Pigtail

Your advantages

- PLe according to EN ISO 13849-1
- IP 67 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
- Fastest sensor available (risk time)



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SAFIX W3-X-P

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 W3-X-P
Item number	1019321
Item number (old)	SP-E-76-000-06
Functional type	RFID safety sensor
Service life TM (EN ISO 13849-1)	20 Years
Coding levels	Individually coded, learnable

Safety data

Performance Level (EN ISO 13849)	PL _e
Category (EN ISO 13849-1:2015)	cat. 4
PFH _d (EN ISO 13849)	2,24 x 10 ⁻⁹
Approvals	TÜV_SÜD, CE

Environmental conditions

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

Electrical data

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



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SAFIX W3-X-P

Electrical service life (nominal load)	20 Years
Design / Connections	Pigtail 19.5 cm cable, M12 8-pin male connector
Contact type	OSSD
Supply voltage	DC +/- 10% 24 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 with SSP accessories cable

WH	UB
BN	safety input 1
GN	GND
YE	safety output 1
GY	diagnostic input
PK	safety input 2
BU	safety output 2
RD	EDM / Reset

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

SAFIX W3-X-P

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

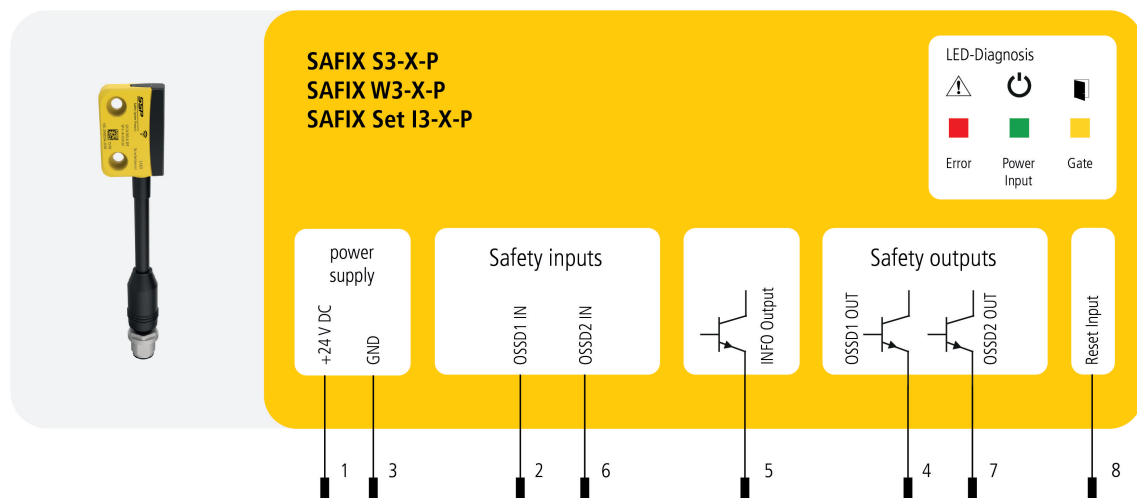
Green	Red	Yellow	Remark
off 	off 	on 	Sensor not actuated, voltage applied
on 	off 	off 	Sensor actuated, all inputs set correctly
flashes 	off 	off 	Sensor actuated, safety inputs not set (low level)
flashes 	off 	off 	Safety inputs set (high level), waiting for start pulse
off 	off 	flashes 	Actuator 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 W3-X-P

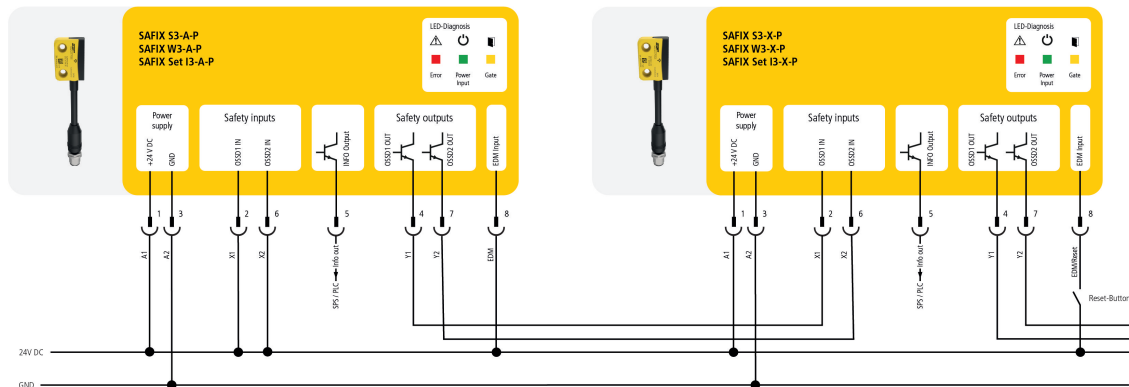
Electrical drawings

Connection drawing



SAFIX W3-X-P

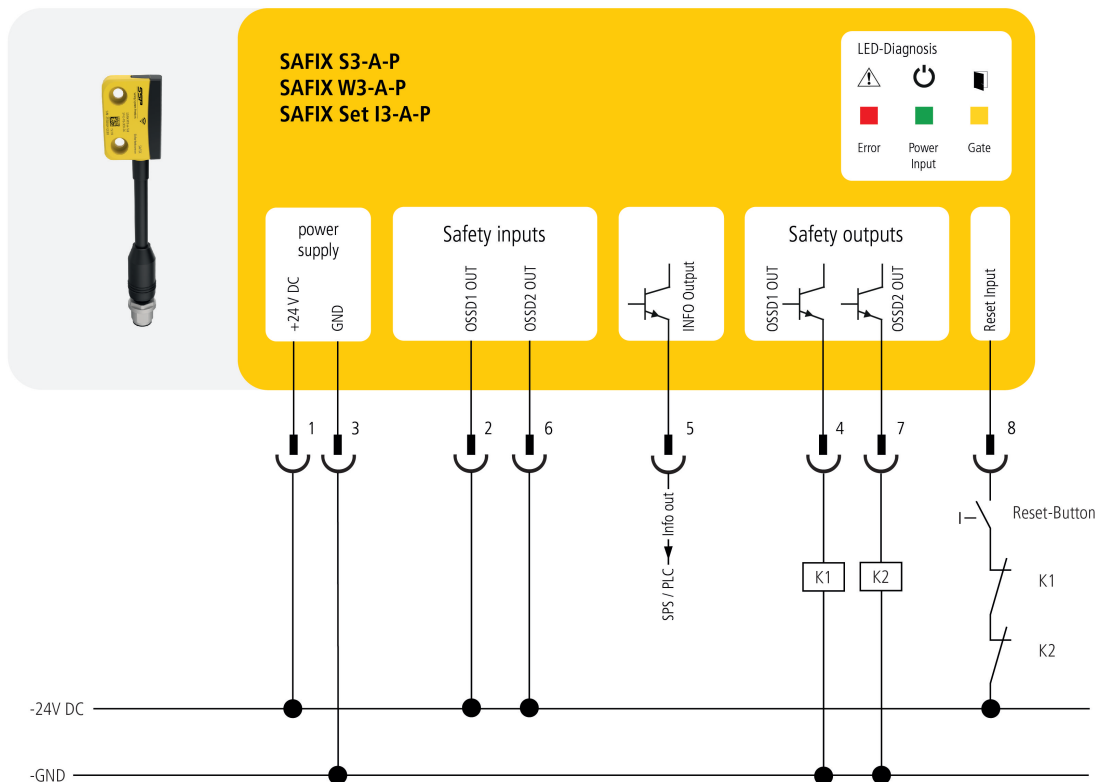
Connection example 2



Input of a reset button + each door circuit can be acknowledged, SAFIX__X__
 Series connection of several SAFIX sensors with manual reset.
 The reset button must always be connected to the last sensor. (SAFIX__X__)
 All other sensors must be used with the automatic start variant (SAFIX__A__)

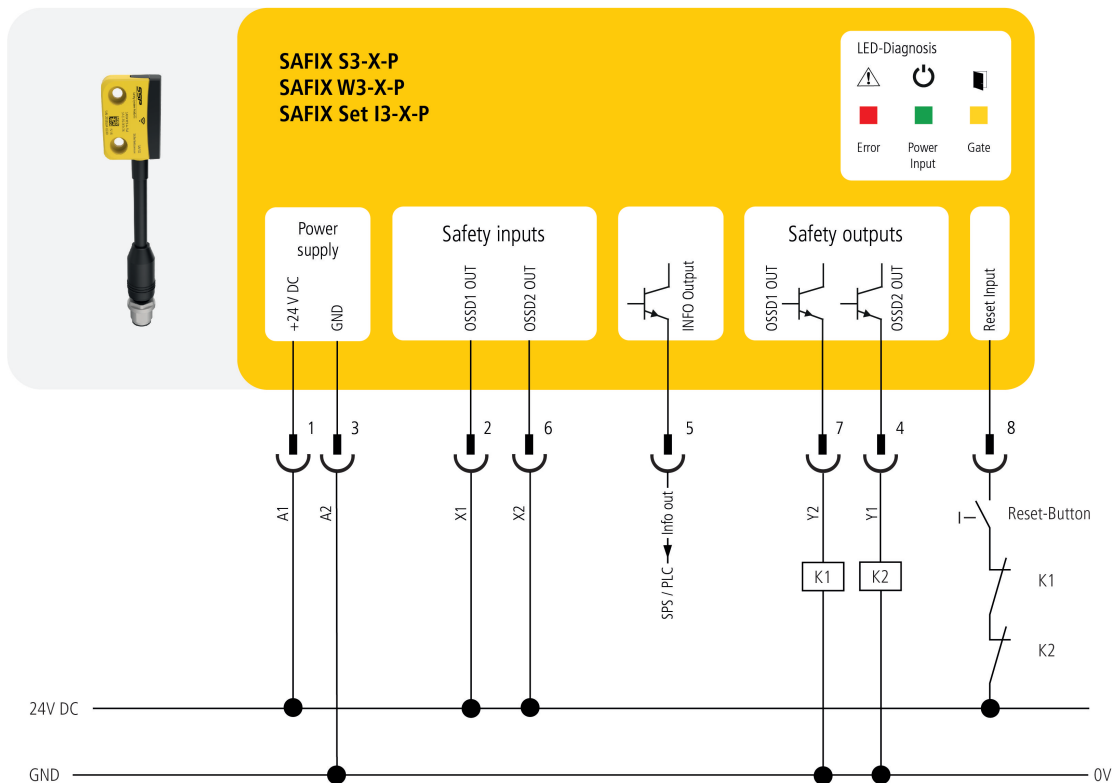
SAFIX W3-X-P

Connection example 1



SAFIX W3-X-P

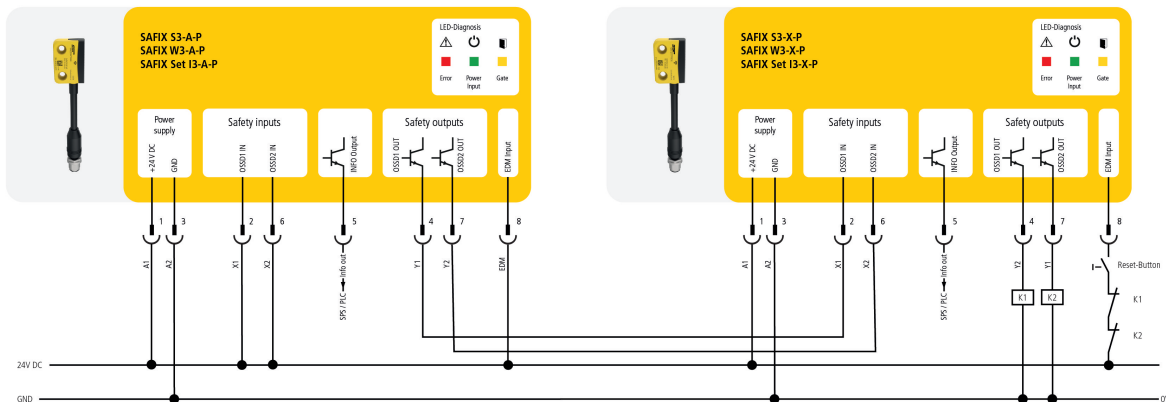
Connection example 3



Direct connection of two contactors according to PL e, SAFIX__X__
 The inputs X1 and X2 are connected with 24V DC. The outputs Y1 and Y2 are connected to the evaluation. The diagnostic output can be connected e.g. to a PLC. The EDM input waits for a start pulse duration between 30ms and 5s. The feedback circuits of the contactors K1 and K2 are also connected to the EDM input.

SAFIX W3-X-P

Connection example 4

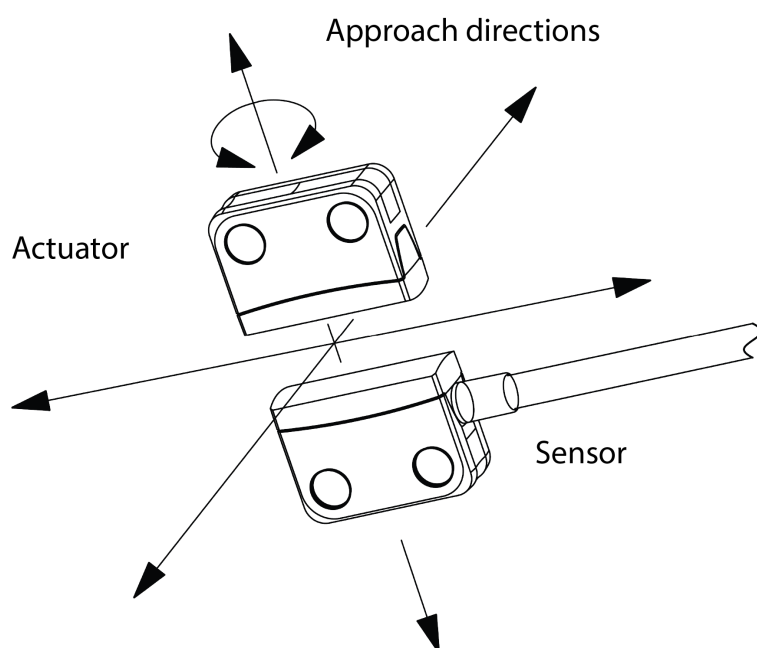


Direct connection of two contactors according to PL e, SAFIX__A__ & SAFIX__X__
 The EDM input waits for a start pulse duration between 30ms and 5s.
 The feedback circuits of contactors K1 and K2 are also connected to the EDM input.

SAFIX W3-X-P

Drawings

Assembly



Equipment

Accessories

M12-female connector, 8 pin, 10 m

C8D10

1021397



M12-female connector, 8 pin, 15 m

C8D15

1021398



SAFIX W3-X-P

M12-female connector, 8 pin, 25 m	C8D25	1021390	
M12-female connector, 8 pin, 40 m	C8D40	1021389	
M12-female connector, 8 pin, 5 m	C8D5	1021396	
M12-connecting cable, 8 pin, 10 m	M12-M12-C8103-G	1022352	
M12-connecting cable, 8 pin, 1 m	M12-M12-C813-G	1022368	
M12-connecting cable, 8 pin, 5 m	M12-M12-C853-G	SP-X-33-000-08	

Safe control technology

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

SAFIX W3-X-P

Time delay safety relay 1 safety function	T2 series	1019456
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Multi-function safety relay 2 safety functions	X2 series	1019457
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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-I1-Q1	1030124
	A0-Q2A0-Q3C0-Q4I0-W40	



Safety Simplifier for SAFIX	S14LDRB-H0A-E2-I1-I1-K4-Q1	1030125
	A0-Q2A0-Q3C0-Q4I0-W41	



Safety switches

Standard-Actuator for SAFIX 3	SAFIX T5	1019317
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SAFIX W3-X-P

Flat actuator for SAFIX 3	SAFIX T6	1019331	
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
- Product line
- Catalog
- Catalog packaging systems
- Certificate
- EPLAN-Data

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