

SAFETY SENSORS

Facility safeguarding

SSP
Safety System Products

Safety sensors

SSP has over 20 years of experience in the development of safety products and safety controls.

Safety engineering has become a demanding discipline in modern factory automation, where safety solutions are becoming a crucial efficiency factor. At SSP, we are committed to the mission 'we simplify safety'. Our claim is the application of safe sensor technology.

Our product selection:

- SAFIX
- HOLDX R
- ATOM / CTEK
- tGARD
- amGardPro Profisafe/Ethercat (Profisafe control box)
- XCONN Simplifier and combination Simplifier push-button box + HOLDX



” SSP redefines safe sensor technology. In the form of smart products that are uncomplicated and meet all normative requirements. ”

Table of contents



SAFIX 3

RFID safety sensor up to IP69K

Page 4



HOLDX

The smart process interlock - RFID

Page 12



Dezentraler Connection module

Safe wireless distributors

Page 32

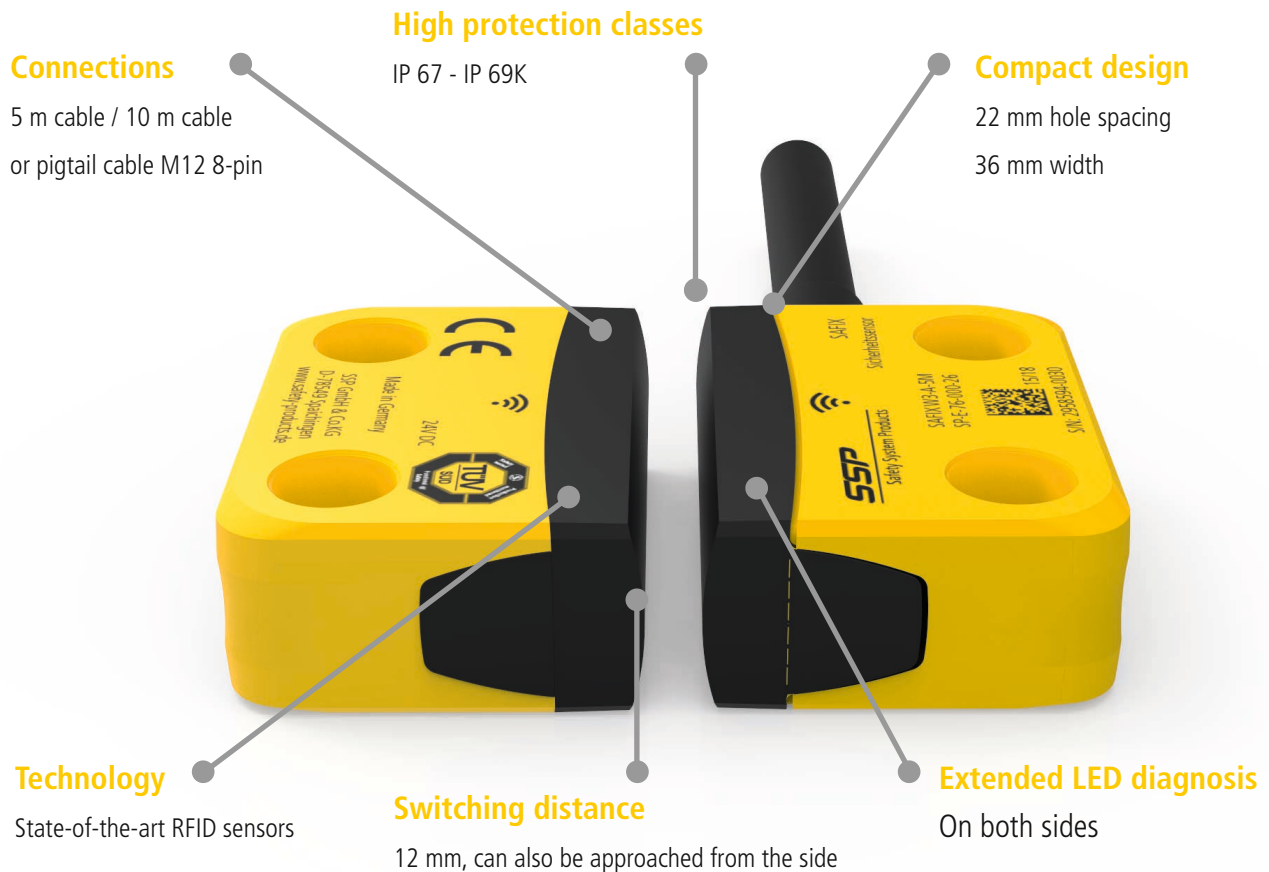


Order lists

Accessories and circuit examples

Page 38

Safety sensor SAFIX



Safety

High protection against tampering due to coding level according to EN ISO 14119



Next generation of our RFID safety sensor SAFIX

SAFIX 3 not only impresses with its compact design, but also makes use of state-of-the-art RFID technology. It is available in three different versions with optional low or high coding level acc. to EN ISO 14119 provides high protection against manipulation.

Thanks to different actuators, SAFIX 3 can be easily and quickly installed in a broad number of applications, regardless of whether in wing door, lifting gate or aluminum profile.

Up to 30 units in a row

SAFIX 3 can be connected in series up to 30 times in accordance with PLe EN ISO 13849-1. Flexible pigtail connections allow quick and easy installation.

The number of connecting cables is significantly reduced. The extended diagnosis is shown user-friendly via three-color LED display and thus enables rapid maintenance and commissioning.



Waterproof housing



Resistant to cleaning agents



Flat actuator SAFIX T6

Safety sensor SAFIX

Risk assessment

If it is stated in the risk assessment that the safety switch must be prevented from loosening (EN ISO 14119), the screw covers supplied are a possibility to omit the safety screws. For subsequent opening of the screws, the cover must be opened with a special tool.

Extensive in the safety application

- ✓ PLe acc. to EN ISO 13849-1
- ✓ High coded acc. to EN ISO 14119
- ✓ Series connection of up to 30 sensors without loss of safety
- ✓ Integrated EDM function for direct connection of contactors (no safety relay required)
- ✓ Manual / automatic start
- ✓ Risk time of 75 ms

EXCERPT FROM EN ISO 14119

5.2 Arrangement and installation of position switches

Position switches must be arranged in such a way that they are adequately protected against any change in their position. To achieve this, the following requirements must be met:

(a) the fastening elements of the position switches must be reliable and a tool must be required to loosen them.





Flexible in assembly and wiring

- ✓ Can be used for small windows up to large security doors
- ✓ High protection classes IP67 and IP69K for use in harsh environments
- ✓ Suitable for the food and packaging industry in accordance with ECOLAB
- ✓ Flexible wiring concept with the passive distributor XCONN or wireless distributor
- ✓ Connections via fixed 5 m and 10 m cable or M12 pigtail connection

IP69K











































ECOLAB®



we simplify safety

Diagnosis SAFIX

Extended LED diagnosis

Green	Red	Yellow	Remark	Green	Red	Yellow	Remark
off 	off 	on 	Sensor not actuated, voltage applied	off 	flashes 	off 	Error safety outputs
on 	off 	off 	Sensor actuated, all inputs set correctly	off 	flashes 	off 	Error safety inputs
flashes 	off 	off 	Sensor actuated, safety inputs not set (low level)	off 	flashes 	off 	Error safety inputs. EDM automatic: Safety relay fault. EDM manual: Faulty start impulse
flashes 	off 	off 	Safety inputs set (high level), waiting for start pulse	off 	flashes 	off 	Ovoltage or undervoltage fault
off 	off 	flashes 	Actuator at the reception limit	off 	flashes 	off 	Temperature outside the permitted range
off 	off 	flashes 	Teach-in process	off 	flashes 	off 	Wrong actuator
off 	on 	off 	Permanent light	off 	on 	off 	Internal device error

Diagnosis advantages

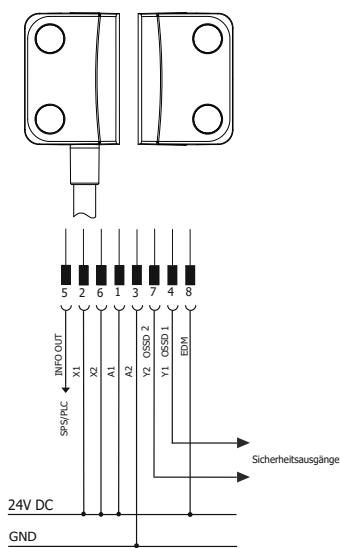
- ✓ Reduced machine downtime due to LED diagnostic function
 - Door open / closed
 - Error in input / output circuit
 - Series connection - diagnosis of whether a door in the series was previously open
- ✓ Diagnostic output for visualisation on the standard PLC



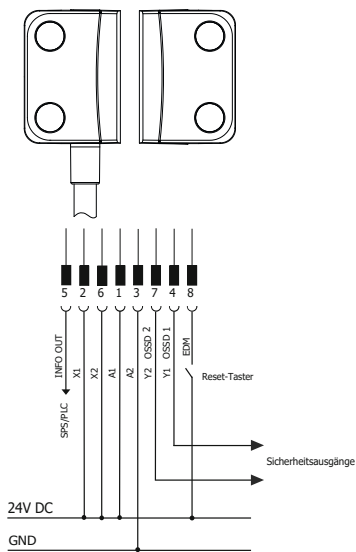


Electrical connection

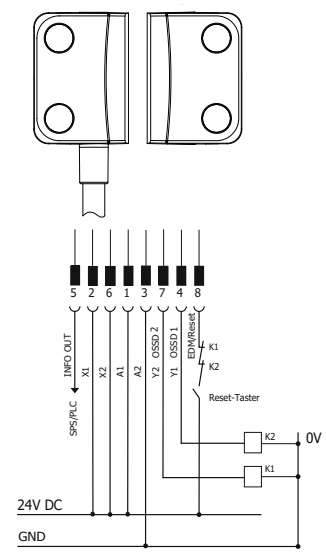
SAFIX 3 **-A-**
Automatic reset



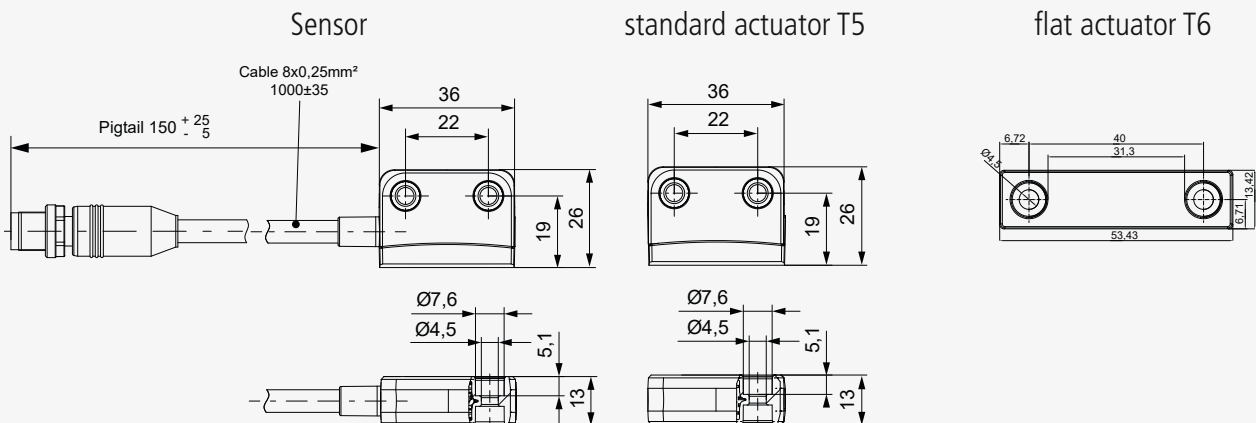
SAFIX 3 **-X-**
Manual reset



SAFIX 3 **-X-**
Manual reset + EDM



Dimensioning



...EDM function of RFID safety sensor SAFIX3

The SAFIX 3 safety sensor and the HOLDX R smart process guard locking have not only implemented state-of-the-art RFID technology, but also the full function of a safety switch device with EDM function.

The SAFIX 3 / HOLDX R sensor can optionally be ordered with a manual or automatic reset function. Downstream contactors up to a current consumption of 500 mA can be connected directly to the safe OSSD outputs on the sensor. EDM- input monitors the externally connected contactors with positively driven contacts

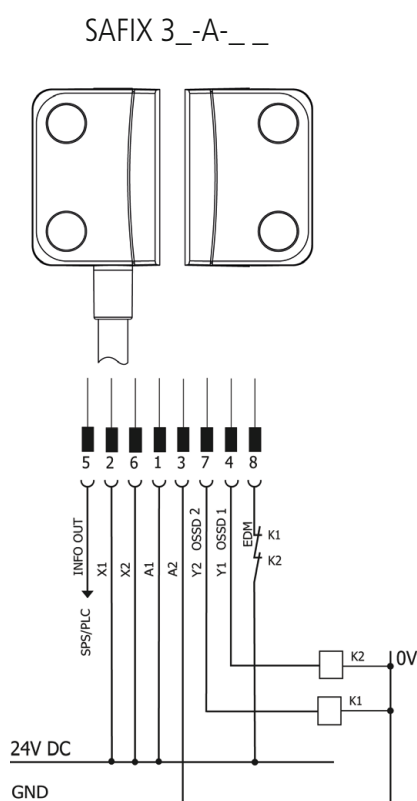


Figure 3:

EDM function with automatic reset button

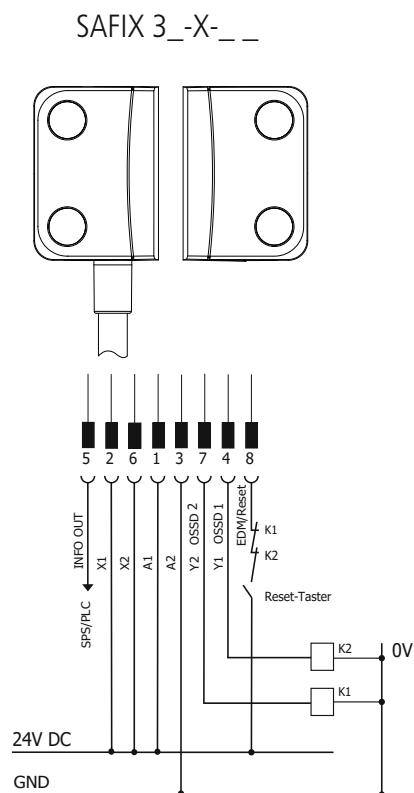
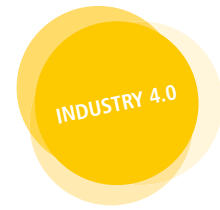


Figure 4:

EDM function with manual reset button

HOLDX R



The smart process guard locking HOLDX R

The new generation of magnetic process guard lockings - Award winners, innovative and intelligent.

The HOLDX R series cleverly combines a secure non-contact RFID safety sensor with an intelligent electromagnet in a single device. With this combination of safe position monitoring and process guard locking, the HOLDX R is universally applicable and ensures increasing quality as well as less downtime and set-up times.

Two designs for your application



HOLDX RS

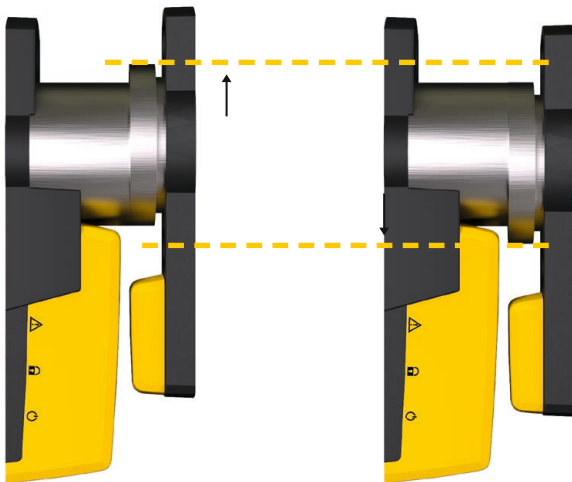
In its small and compact design, the HOLDX RS enables a locking force of 600 N. In addition to the locking force of the electromagnet, the movably supported anchor plate has a 50 N permanent magnet which prevents a door from instant opening.



HOLDX RL

Ideal for large doors. Thanks to the locking force of 1200 N, the HOLDX RL prevents doors from tearing open. With a slim width of only 35 mm, the guard locking is ideal for space-saving installation on aluminum profile systems. Like the HOLDX RS, the guard locking has also has a permanent magnet of 50 N, which prevents a door from opening.

Simple installation, reduced commissioning time



Flexible door offset

Through the combination of RFID technology and a modern electromagnet, HOLDX R allows a large tolerance in door offset and thus significantly increases machine availability even with inaccurate door guidance.

Simplified application

- ✓ Reduced commissioning time thanks to flexible assembly concept on aluminum systems
- ✓ Pigtail connection reduces cable diversity (straight and angled cables)
- ✓ Reduced machine downtime thanks to diagnostic function





Quick installation











- ✓ 600 N locking force for small flaps
- ✓ 1200 N locking force for heavy doors
50 N permanent latching force (optional)
- ✓ Flexible adjustment of latching force from 0-50 N via free mobile app or desktop software
- ✓ Integrated magnetic flux measurement for contamination diagnosis














HOLDX R





Extended LED diagnosis

Green	Safe sensor function
on 	OSSD input circuit available, Door closed
flashes 	Door opened
flashes 	OSSD input circuit not available, Door closed
flashes 	Actuator at the reception limit, Switching distance in limit range

Red	Fault diagnosis
off 	No error present
on 	Internal device error
flashes 	Error safety outputs
flashes 	Error safety inputs
flashes 	Overvoltage or undervoltage
flashes 	Error door torn opened
flashes 	Temperature outside the permitted range
flashes 	Wrong RFID actuator
flashes 	Error magnetic flux measurement
flashes 	Set B10 _d values in limit range

The smart HOLDX R process guard locking enables simple and fast diagnostics thanks to LEDs on both sides. It immediately detects if another process guard locking in the system does not achieve the desired locking force or if there is a fault in the input or output circuit of the guard locking. In this way, you can clean or realign the guard locking completely in line with the preventive maintenance of your system.

Green	Red	Blue	System states
on 	on 	on 	Device start
flashes 	flashes 	flashes 	Teach-in process only for reteachable variant
flashes 	flashes 	flashes 	Teach-in process only for reteachable variant
flashes 	-	flashes 	Teach-in process only for reteachable variant

Blue	Guard locking function
off 	Magnet not actuated
on 	Door closed, Locking force available
flashes 	Door closed, Locking force not reached
flashes 	Door opened, Magnet actuated

Predictive maintenance thanks to self-monitoring

The smart HOLDX R process guard locking communicates with your standard PLC via the diagnostic outputs or via the built-in Bluetooth interface with your mobile phone or laptop.

HOLDX R independently and intelligently monitors the application and the process as well as the downstream actuators in the safety circuit. This enables you to find errors quickly and easily, without the need for additional measuring or diagnostic equipment.



Innovative, intelligent technology

- ✓ Detects a system failure by magnetic flux measurement before it occurs
- ✓ Manipulation attempts can be detected subsequently
- ✓ Monitoring of downstream participants and B_{100} values
- ✓ Monitoring of lifetime according to EN ISO13849-1, notification before exceeding for timely ordering and replacement of spare parts.
- ✓ Actuation of the door magnet during commissioning even without a running safety PLC
- ✓ Flexible adjustment of the latching force
- ✓ Status information on the current locking force
- ✓ Information about power interruption, short circuits or cross circuits
- ✓ Software password protection against manipulation

HOLDX R Standalone

Smart - Innovative - Safe



www.safety-products.de



HOLDX R - Advantages

ADVANTAGES DIAGNOSIS

- ✓ Extended diagnosis to standard PLC via one output / input
 - Door open / closed
 - Locking force not reached
 - Door torn opened
 - Error in the input circuit of the guard locking
 - Error in OSSD output circuit of the guard locking
 - Wrong actuator
- ✓ Functional modules for Siemens / Beckhoff / Rockwell/ B&R available on the homepage for evaluation of diagnostics

ADVANTAGES IN THE SAFETY APPLICATION

- ✓ PLe acc. to EN ISO 13849-1
- ✓ Series connection of up to 30 guard lockings without loss of safety

ADVANTAGES IN ASSEMBLY AND WIRING

- ✓ Process guard locking is to be used as stop
- ✓ High protection classes IP67 for use in harsh environments
- ✓ Flexible wiring concept with the passive distributor XCONN or wireless distributor

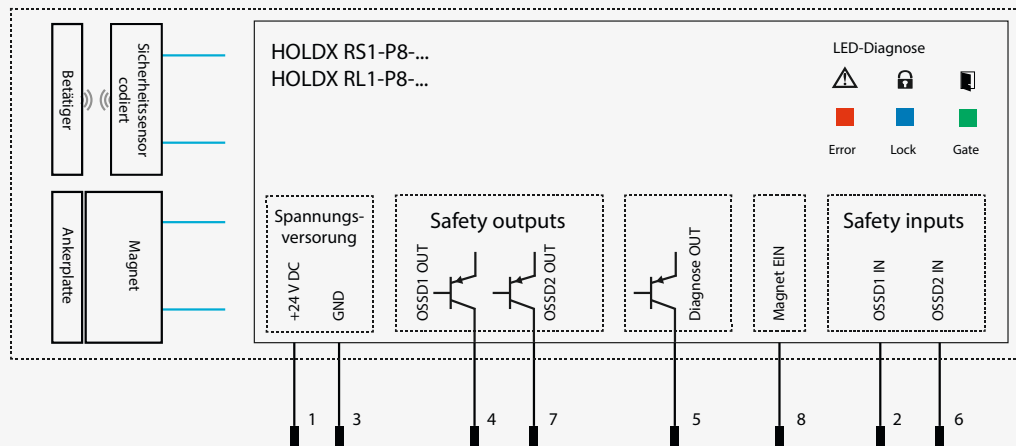
Standalone Varianten

Diagnostic input (magnet ON)

Über den Eingang „Magnet-EIN“ lässt sich die Zuhaltfunktion einschalten. Wird der Eingang über den Kommunikationsbaustein auf der Standard-SPS aktiviert, kann die eingebaute Bluetooth Schnittstelle ein- / ausgeschaltet werden.

Electrical connection

HOLDX R 1 standalone 8-pin pigtail without EDM function



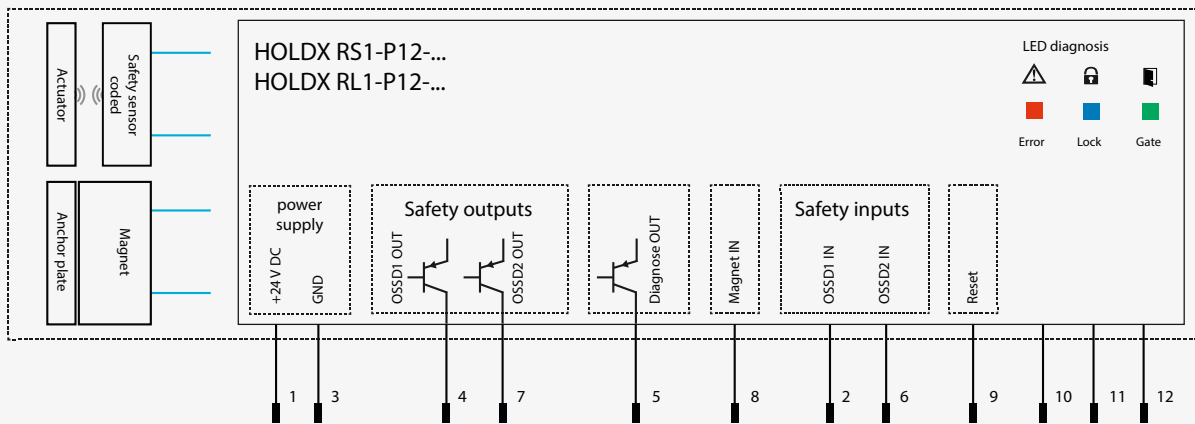


Diagnostics via an output

Der Diagnoseausgang Serial-Out der HOLDX RS1 und RL1 stellt der übergeordneten SPS bis zu 10 Informationen zur Verfügung. Die kostenlosen Bausteine zur Auswertung der Diagnose für eine Siemens, Beckhoff, Rockwell oder B&R Standard-SPS stehen auf unserer Webseite.

Electrical connection

HOLDX R 1 standalone 12-pin pigtail with EDM function



HOLDX R Networked

Networkable versions

Flexible

Movable anchor plate

Magnetic power

600 N locking force variant S
1200 N locking force variant L
50 N permanent magnet

Intelligent failure monitoring

With the aid of magnetic flux measurement

Compact design

Installation on aluminum profiles
from 35 mm construction width

Secure electrical locking

acc. to PLe EN ISO 13849-1

LED-Diagnose

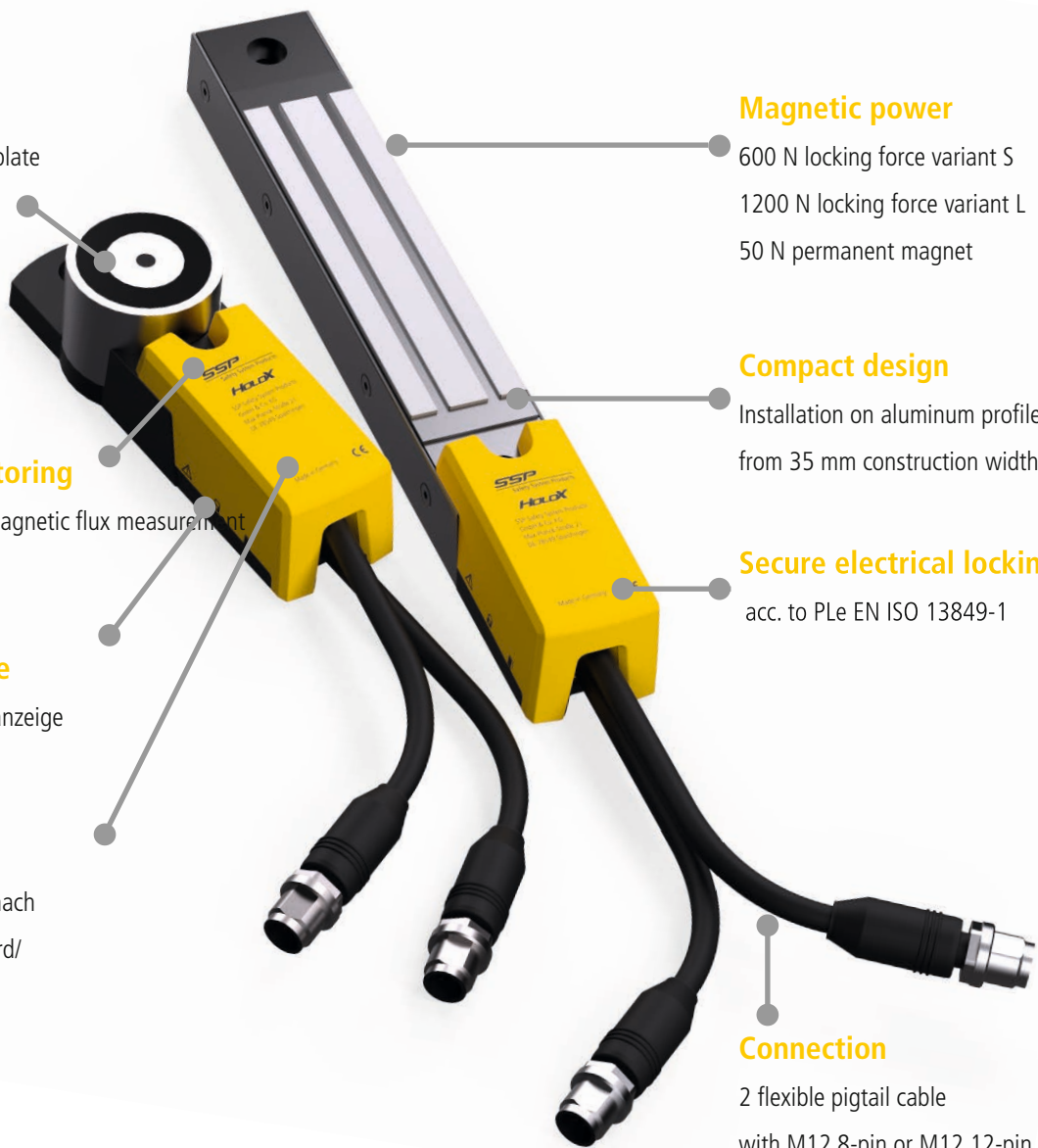
Erweiterte Statusanzeige

Hohe Coding

2 Codingsstufen nach
EN 14119 standard/
individual codiert

Connection

2 flexible pigtail cable
with M12 8-pin or M12 12-pin
for easy wiring



Intelligent series connection

Vorteile der intelligenten Reihenschaltung

- ✓ Series connection of up to 17 process guard lockings up to PLe according to EN ISO 13849-1
- ✓ Up to 170 diagnostic information are available in the system with series connection
- ✓ Each process guard locking can be controlled individually
- ✓ Evaluation of diagnostics on the standard PLC without gateway
- ✓ Functional modules for Siemens / Beckhoff / Rockwell/ B&R available on the homepage for evaluation of diagnostics
- ✓ Wireless transmission of safe and non-safe diagnostic information even with series connection via the wireless safety PLC Safety Simplifier

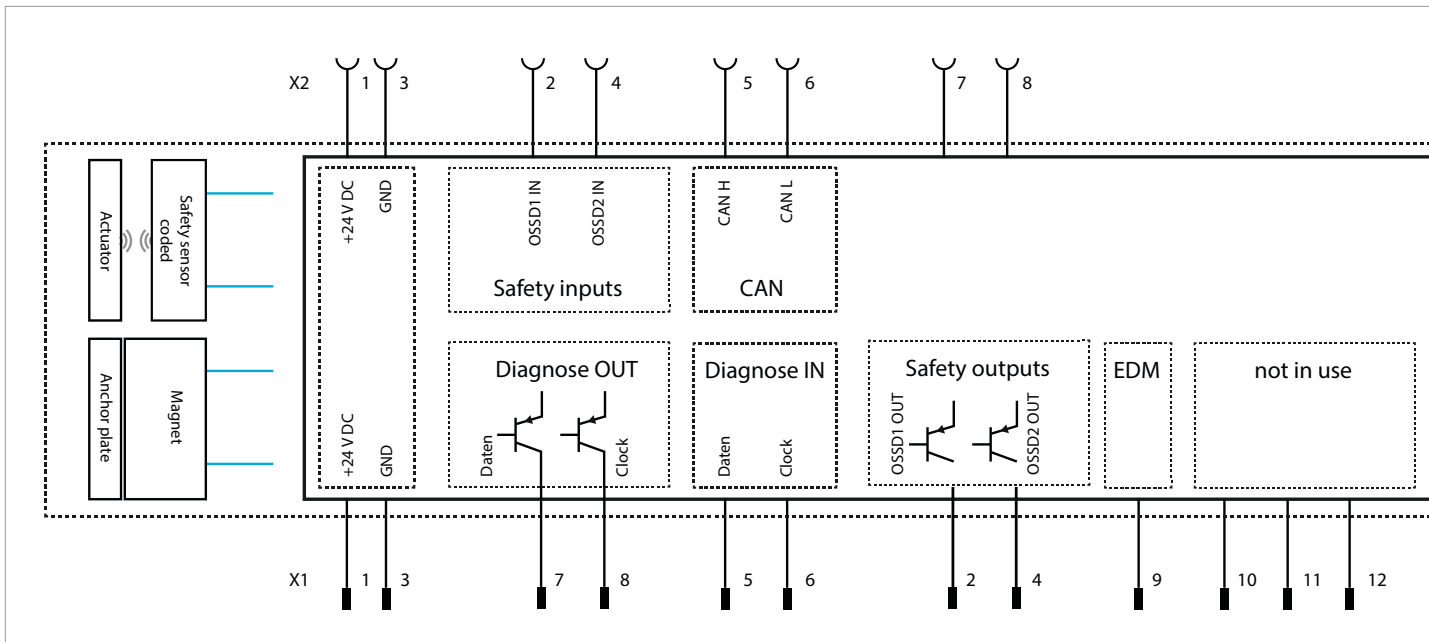
Addressing without laptop & without software

Simply address the HOLDX RS2 and RL2 process guard lockings via the selector switch. In addition to the master, set up to 16 additional slaves once.



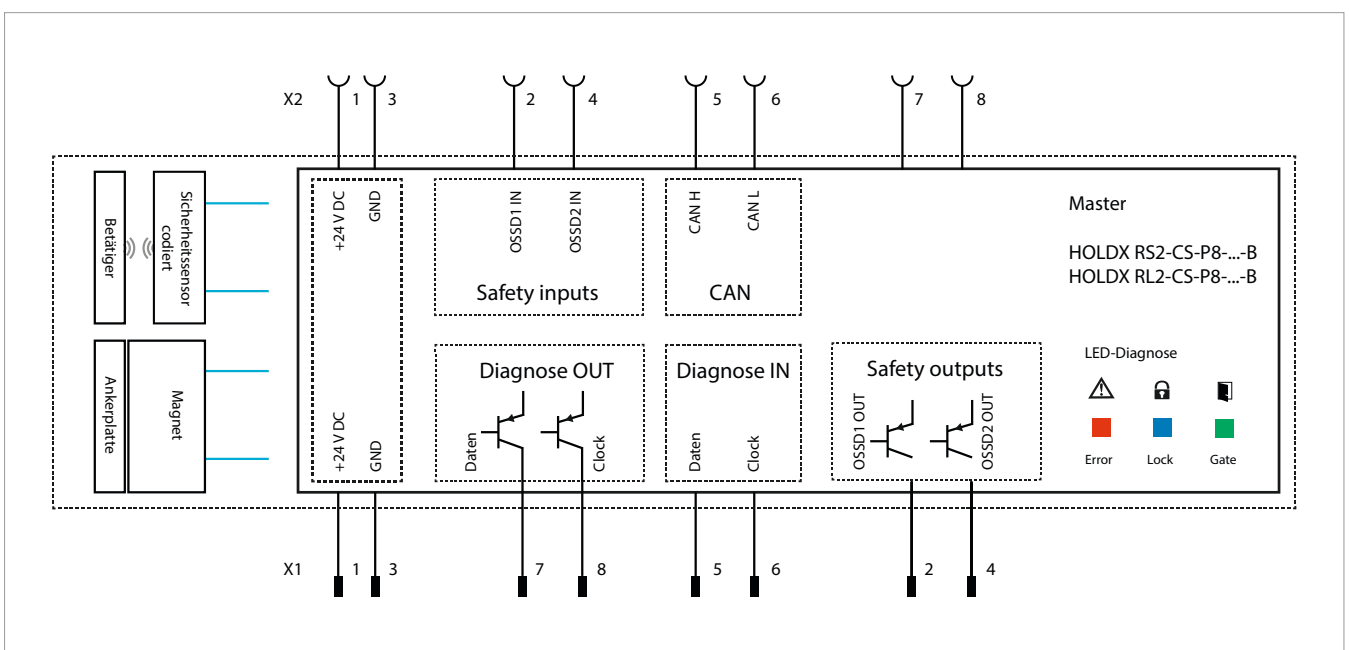
Wiring diagrams

Electrical connection HOLDX R

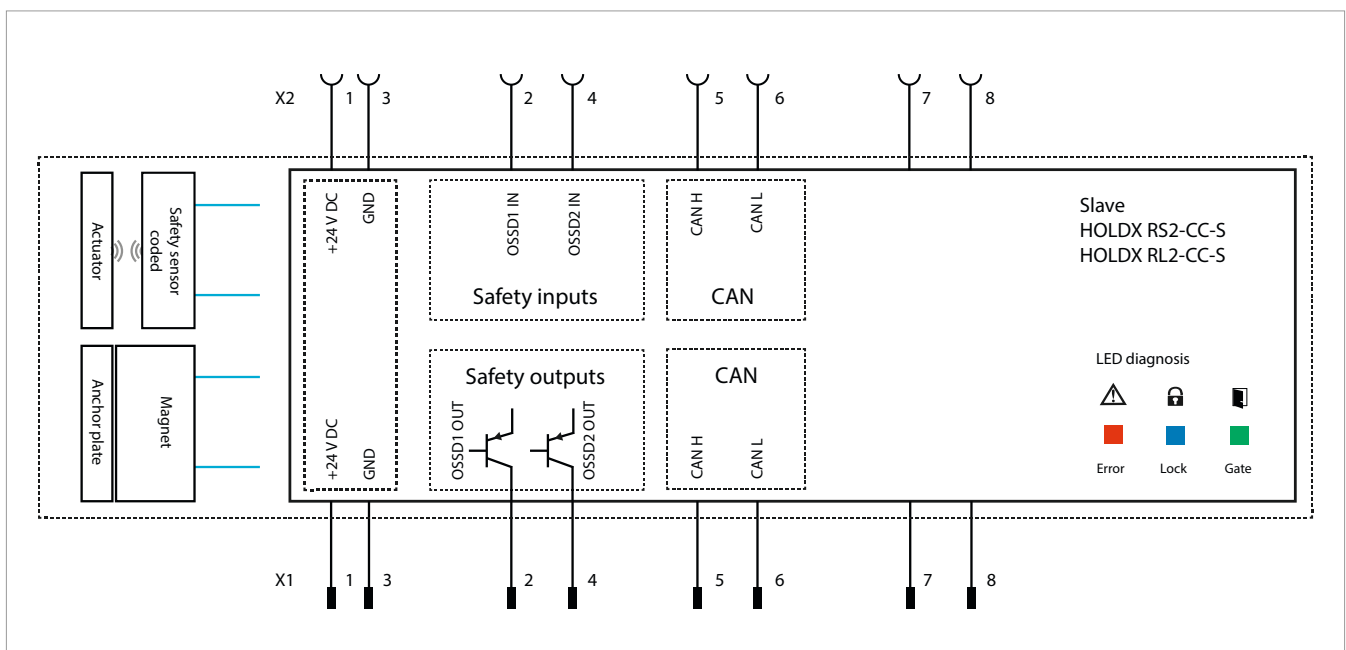
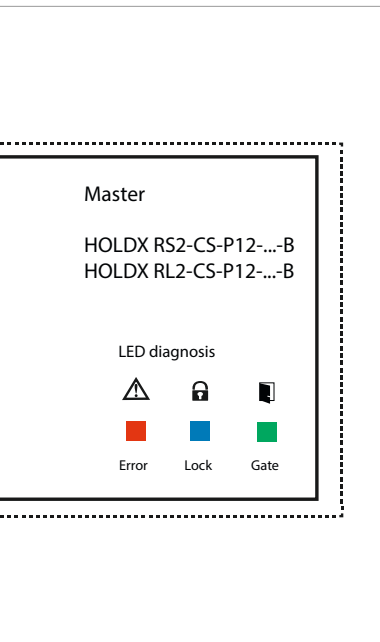


HOLDX R master 12-pin pigtail with EDM function and manual or automatic reset

Electrical connection HOLDX R2



HOLDX R2 Master 8-pin Pigtail



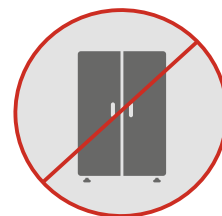
HOLDX R2 Slave 8-pin Pigtail



Intelligent combination of series connection and high diagnostics

Reduction of commissioning time

Reduce your effort and do without an additional, external safety PLC or switch cabinets for the safety technology. Thanks to the Safety Simplifier with IP65 protection, you no longer need them. The wiring effort of the safety components is reduced to a minimum using the safe wireless communication.



Thanks to the two existing pigtail connections, Y-distributors and terminal boxes are no longer necessary. The line is simply looped through from process guard locking to process guard locking.

Thus, up to 30 smart HOLDX R process guard locking act on a safety circuit. The guard lockings connected in series are simply evaluated with the aid of a Safety Simplifier. The communication between the robot control cabinet and the control cabinet of the machine controller is then securely transmitted via a wireless network.

Status information can be evaluated and visualized by the standard PLC. The interface can be easily configured with the free-of-charge functional modules from SSP. All information of the security chain and the diagnosis is transmitted



WIRELESS

Safety Communication
SIL 3, Ple, cat 4

DID YOU KNOW...

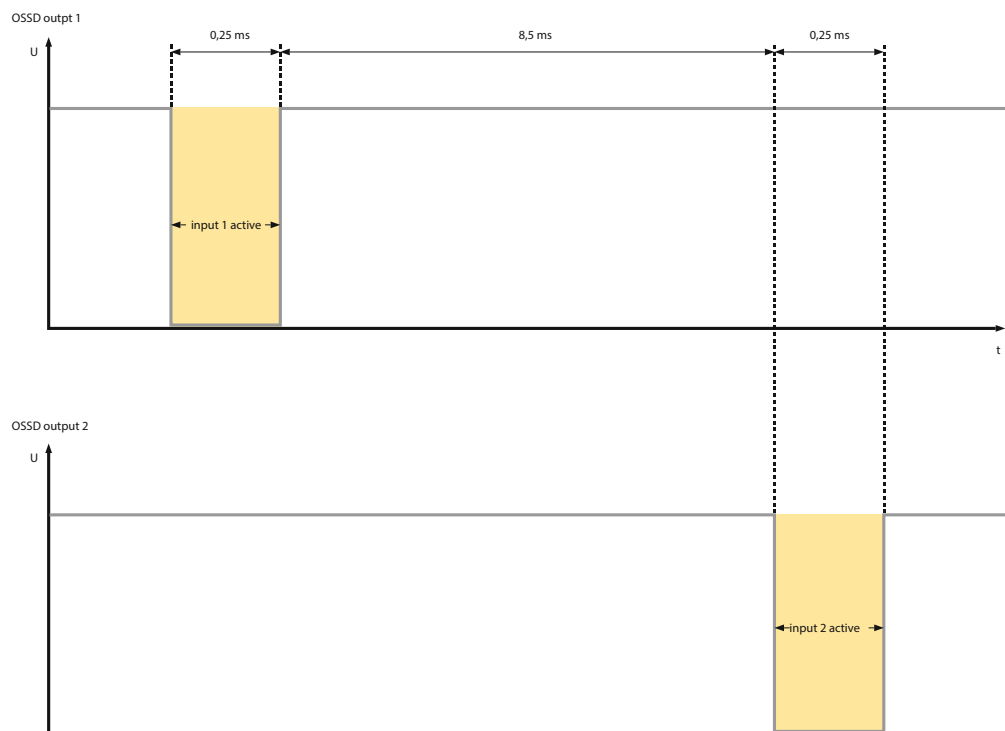
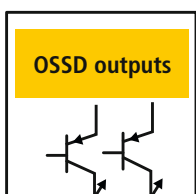
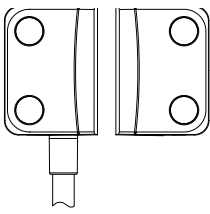


...how OSSD outputs work?

OSSD means "Output Switching Signal Device".

This output type is typically used with safety sensors and safety light curtains or for safe control outputs. Conventional 24 V DC outputs are actually critical for safety functions, as they cannot be detected by an external 24 V line via a short circuit. For this reason, the two OSSD outputs are switched off with a time delay. During the pause time of the output, a built-in input is activated and read back. If 24 V is present at the input after switching off the output, an error is detected and the two built-in processors safely switch off both outputs.

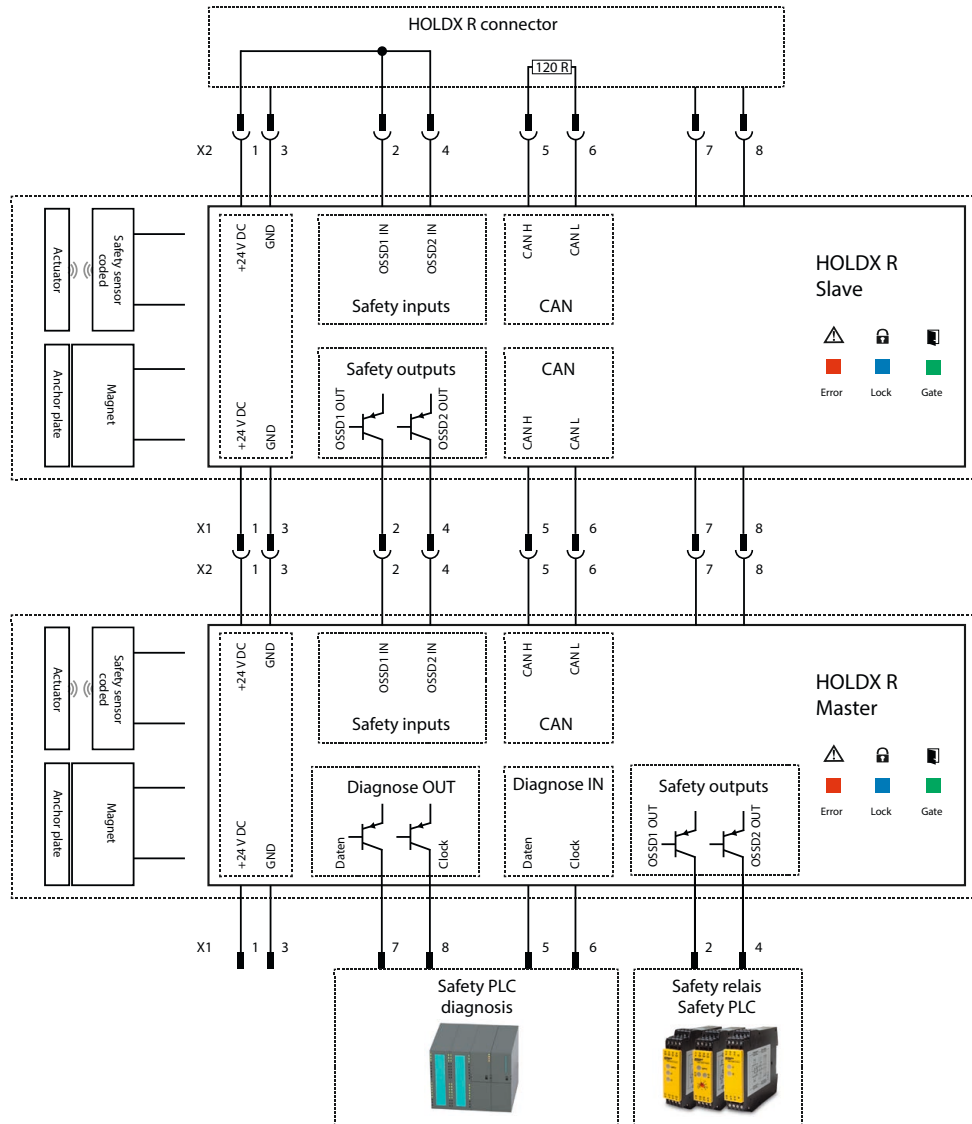
This technology makes it easy to monitor short circuits and cross circuits up to PLe according to EN ISO 13849-1. With the aid of an extended LED diagnosis, such as on the HOLDX R process guard locking or the RFID safety sensors of the SAFIX, the detected faults on the safety sensor can be quickly detected and make troubleshooting considerably easier.



Time course of input and output functions

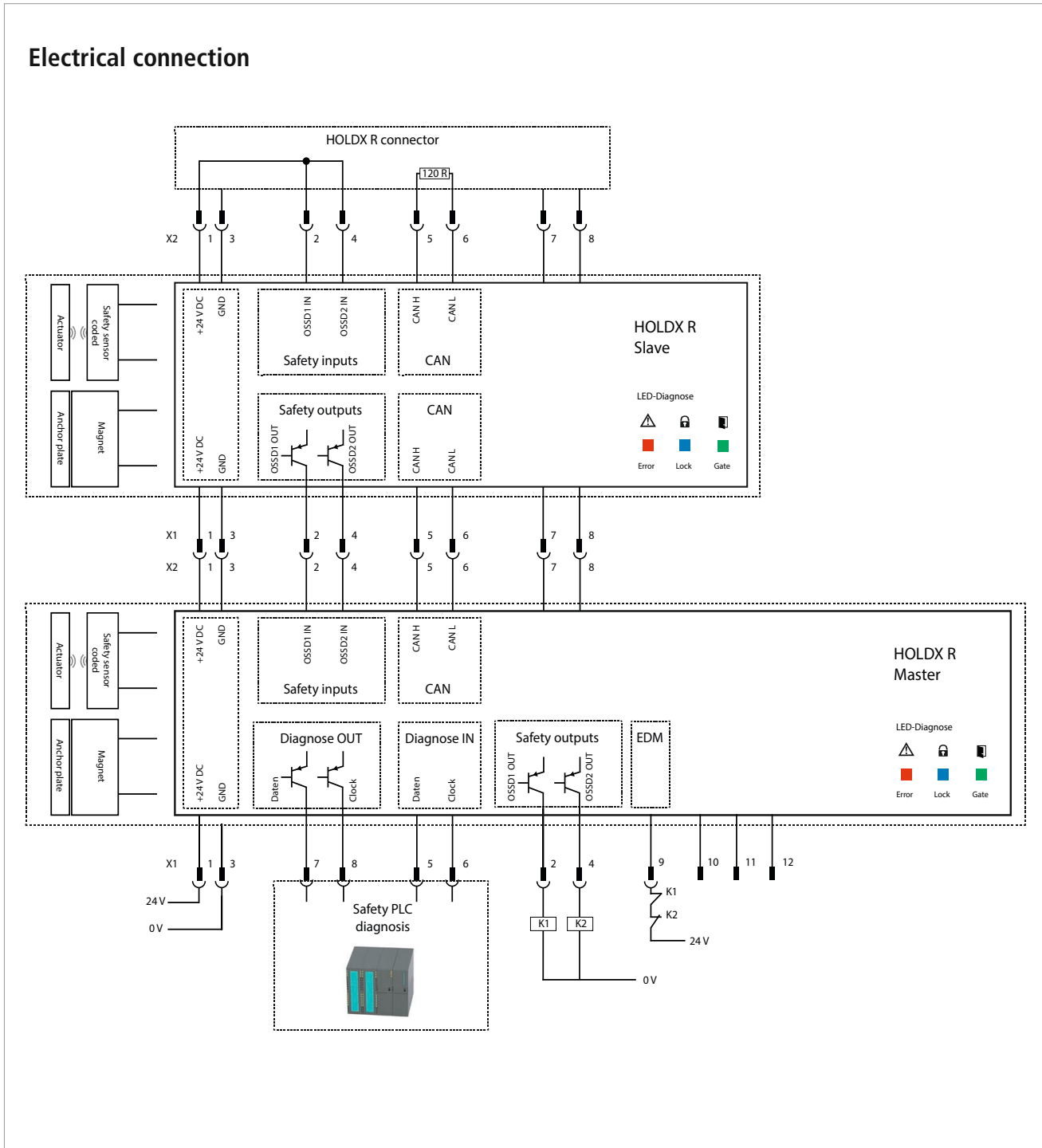
HOLDX R

Electrical connection



HOLDX R master slave series connection 8-pin

Electrical connection



HOLDX R master slave series connection 12-pin with EDM function

DID YOU KNOW...



...that the Performance Level (PL) is reduced with a series connection of safety switches with mechanical contacts?

In order to save costs, safety switches of several safety doors are often connected in series to a safety relay. However, the diagnostic capability of the faults is greatly reduced with a series connection of door switches with mechanical contacts. This makes it difficult to determine the achievable performance level. This topic is described in EN ISO 14119 in paragraph "8.6 Logic series connection of interlocking devices" and reference is made to the technical report ISO/TR 24119.

In the past, the same degree of diagnostic coverage (DC) was often incorrectly assumed for mechanical safety switches with a series connection and a DC of 99% was specified by the manufacturer. However, in a series

connection the actual DC often shrinks below 60% and the achievable performance level of PLe drops to PLc. For this reason, many machines are unnoticed equipped with an inadequate PL and are therefore not safe. According to ISO/TR, these faults are referred to as fault concealment, but EN ISO 13849-1 requires for Cat. 3 or Cat. 4 that every first fault is detected by the system and that the protective function is not impaired. For this reason, no category 3 can be claimed for these machines and the performance level PLe is not achieved, regardless of whether the DC is above 60%.

Figure 1:

All doors are closed,
No error in the safety circuit,
Motor running

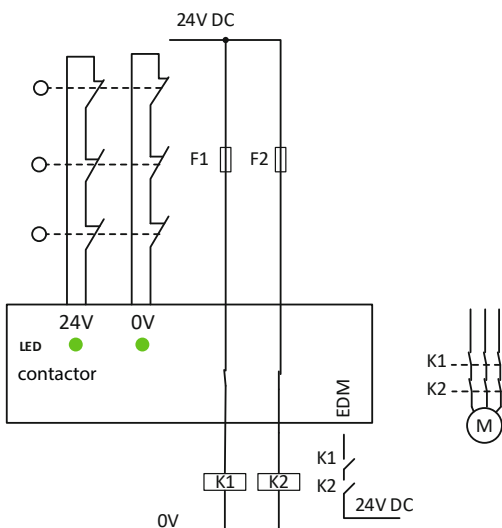
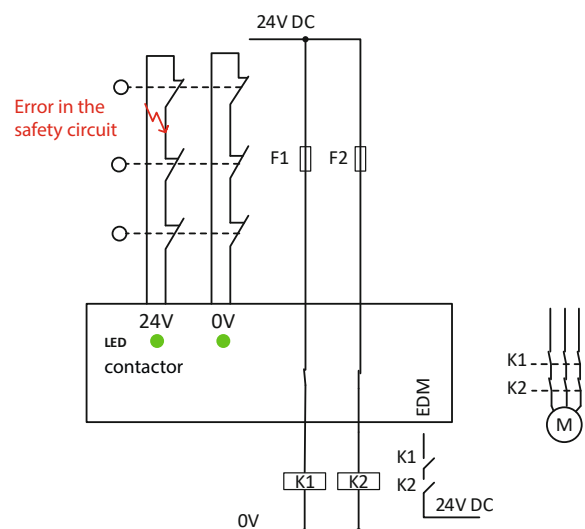


Figure 2:

All doors are closed,
Error in the safety circuit (cross circuit), Fault
due to safety relay not detected, Motor running



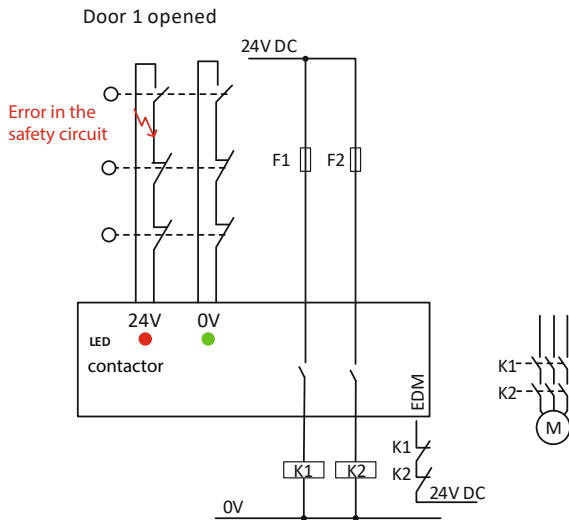


Figure 3:

Door 1 opened, Error in the safety circuit, 2-channel error is detected by the safety relay (only one channel switches off), Motor stopped

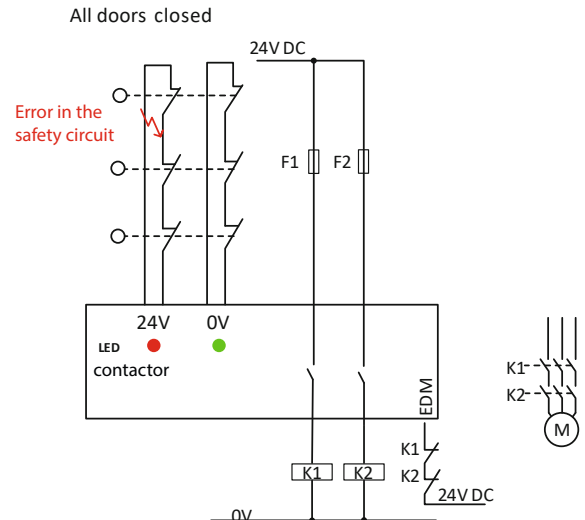


Figure 4:

All doors are closed, Error in the safety circuit, 2-channel error is detected by the safety relay, Motor stopped

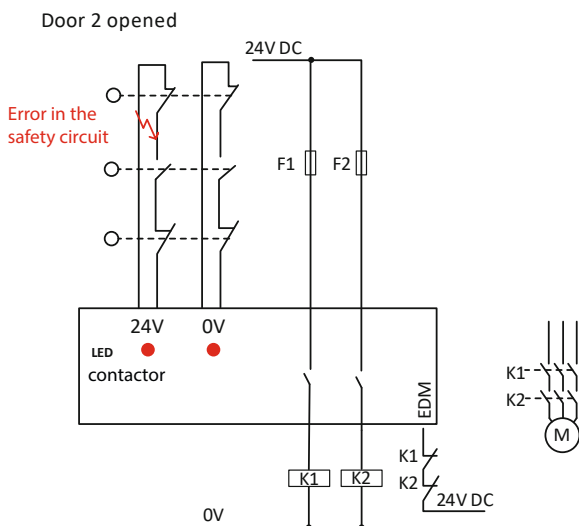


Figure 5:

Door 2 is opened, Error in the safety circuit, Errors are cleared in the safety relay by opening both channels, Motor stopped

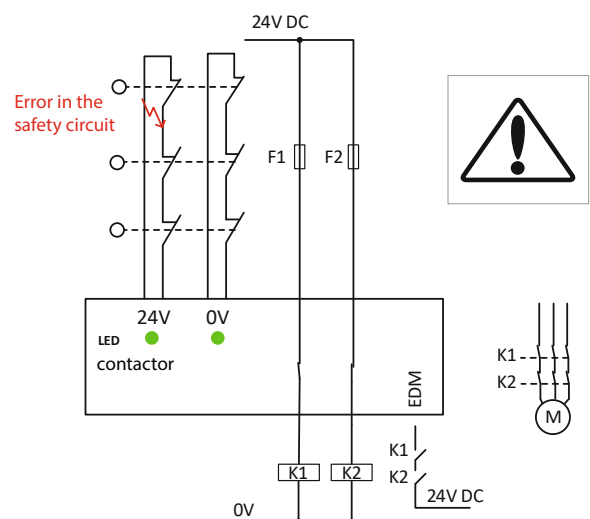


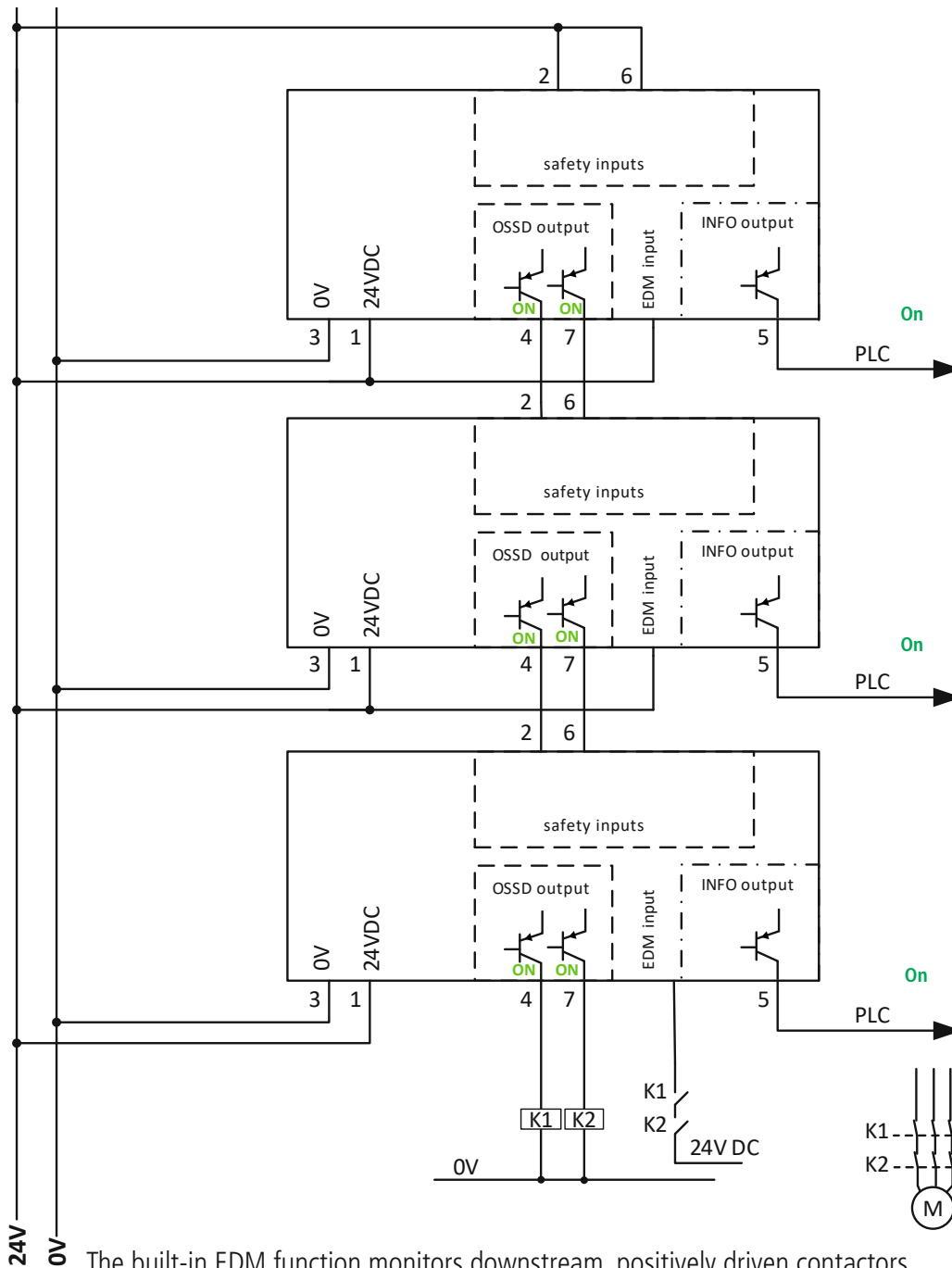
Figure 6:

All doors are closed, Error in the safety circuit, But no error detected in the safety relay (error overwritten by opening both channels), Motor running

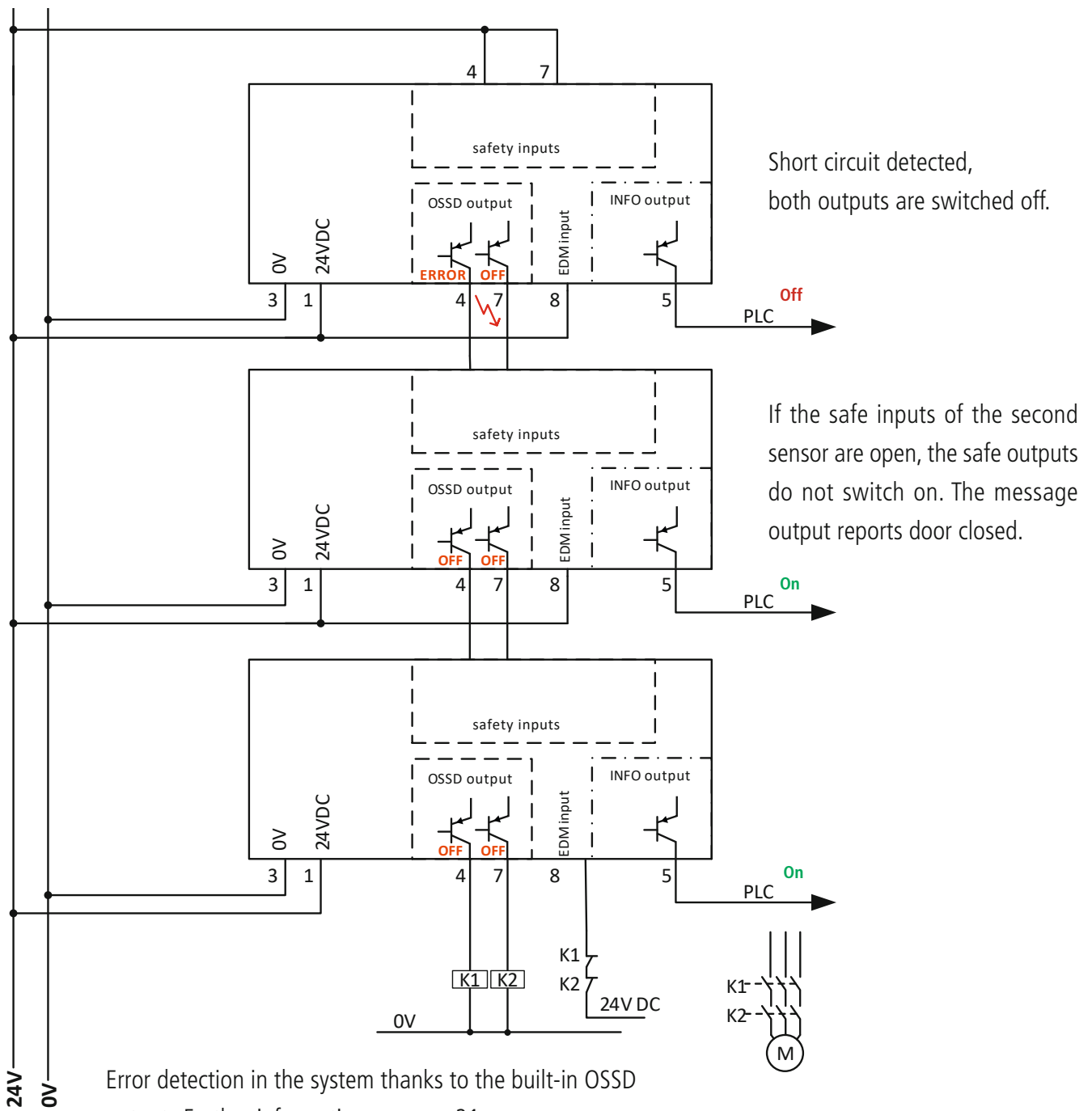
DID YOU KNOW...



....that SAFIX 3 and HOLDX R have safe OSSD outputs in the output circuit?



The built-in EDM function monitors downstream, positively driven contactors.
A safety relay is no longer necessary.



The SAFIX 3 safety sensors and the HOLDX R process guard locking have safe OSSD outputs in the output circuit. The use of OSSD outputs changes neither the wiring category nor the diagnostic coverage (DC) according to EN ISO 13849-1. Every single error that occurs is detected in the system and leads to a safe shutdown. Several safety switches up to PLe can be connected in series without any problems.

If the safety sensors are cascaded (connected in series), only the PFHD value of the entire circuit must be calculated. For the validation software SISTEMA libraries are available which can be downloaded from the SSP website.

XCONN

Simplify your installation and wiring efforts



Advantages of the XCONN passive junction

- ✓ Connection of up to six SAFIX safety sensors with RFID technology
- ✓ Connection of up to six HOLDX process interlocks
- ✓ Release of all process interlocks individually possible
- ✓ Connection of up to six EDI emergency stop buttons



Advanced LED diagnostics

Green

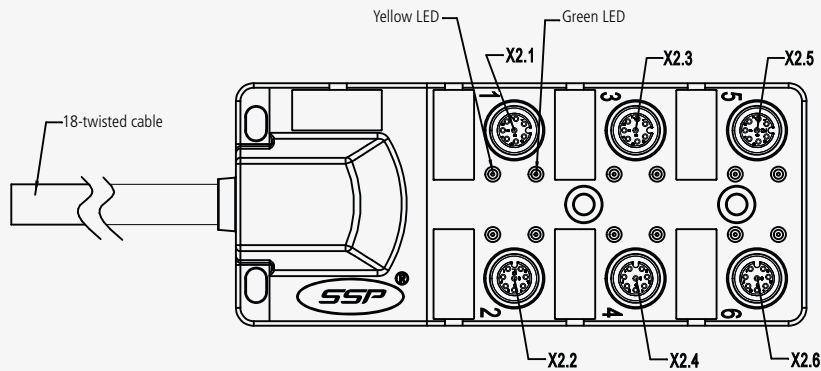
 Magnet/EDM function triggering

Yellow

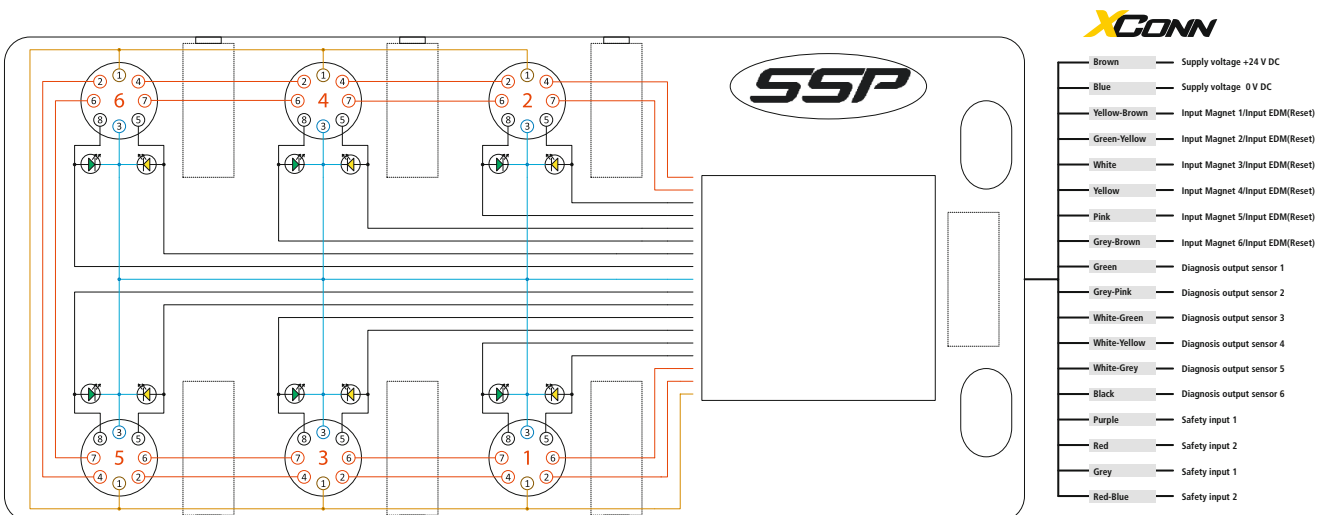
 Sensor state



Dimensioning



Electrical connection



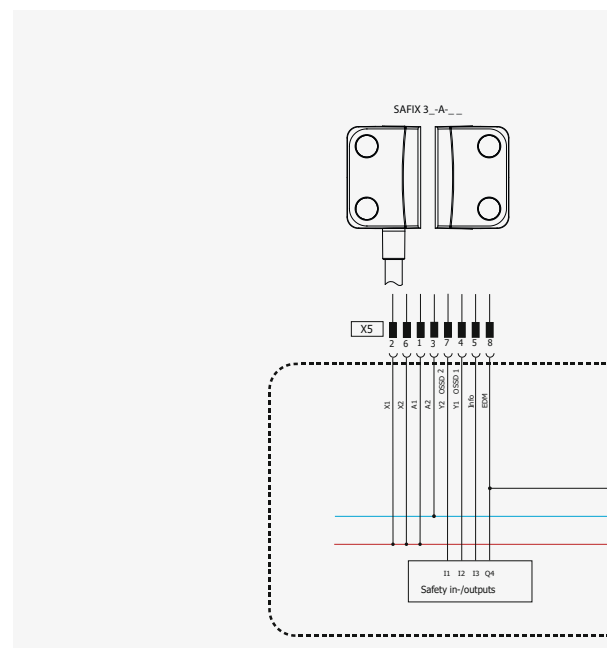
Safety Simplifier

Safe wireless distributors



WIRELESS
Safety Communication
SIL 3, Ple, cat 4

The safe wireless distributors from SSP enable networking and decentralized configuration of up to 16 units acc. to PLe. Each safe distributor contains 14 safe inputs/outputs, which can be flexibly configured..



Decentralization

Decentralized safety concept

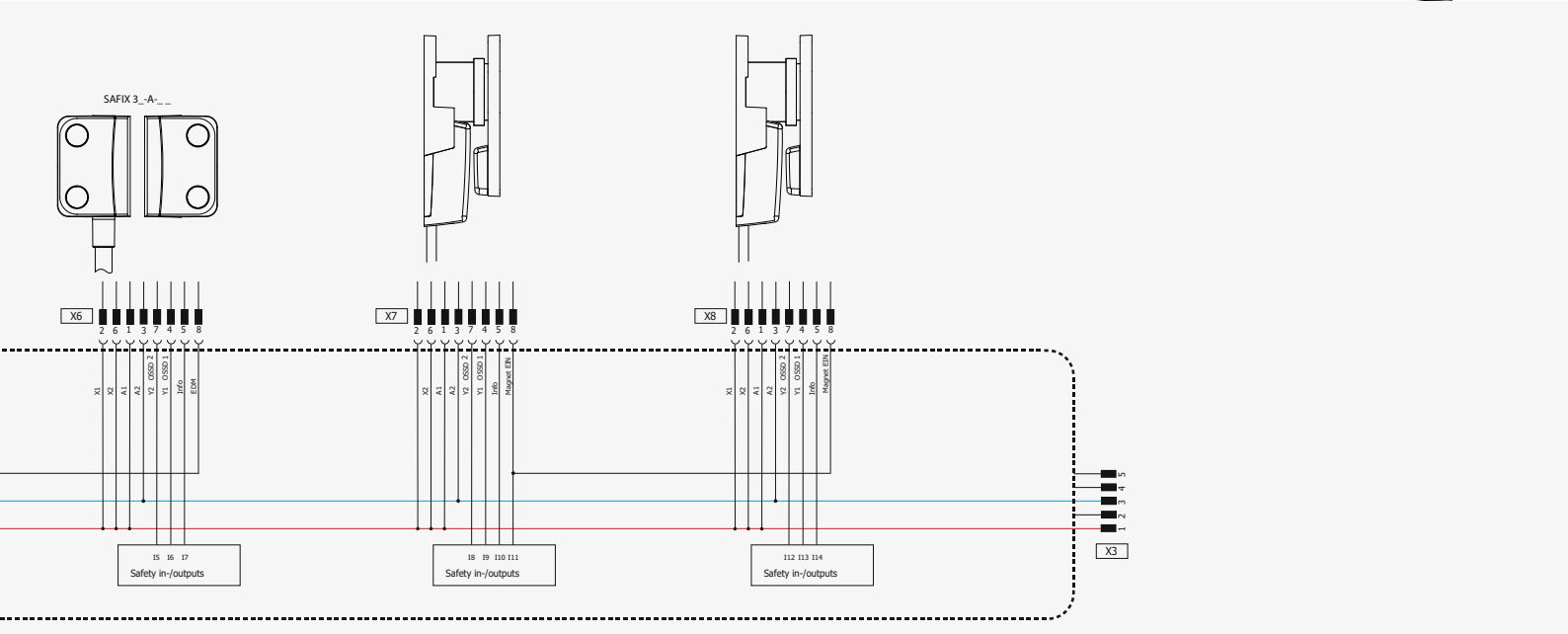


Each connection can be used individually or in combination with a safety function.

With the free software „Simplifier Manager“ the safety function can be programmed.

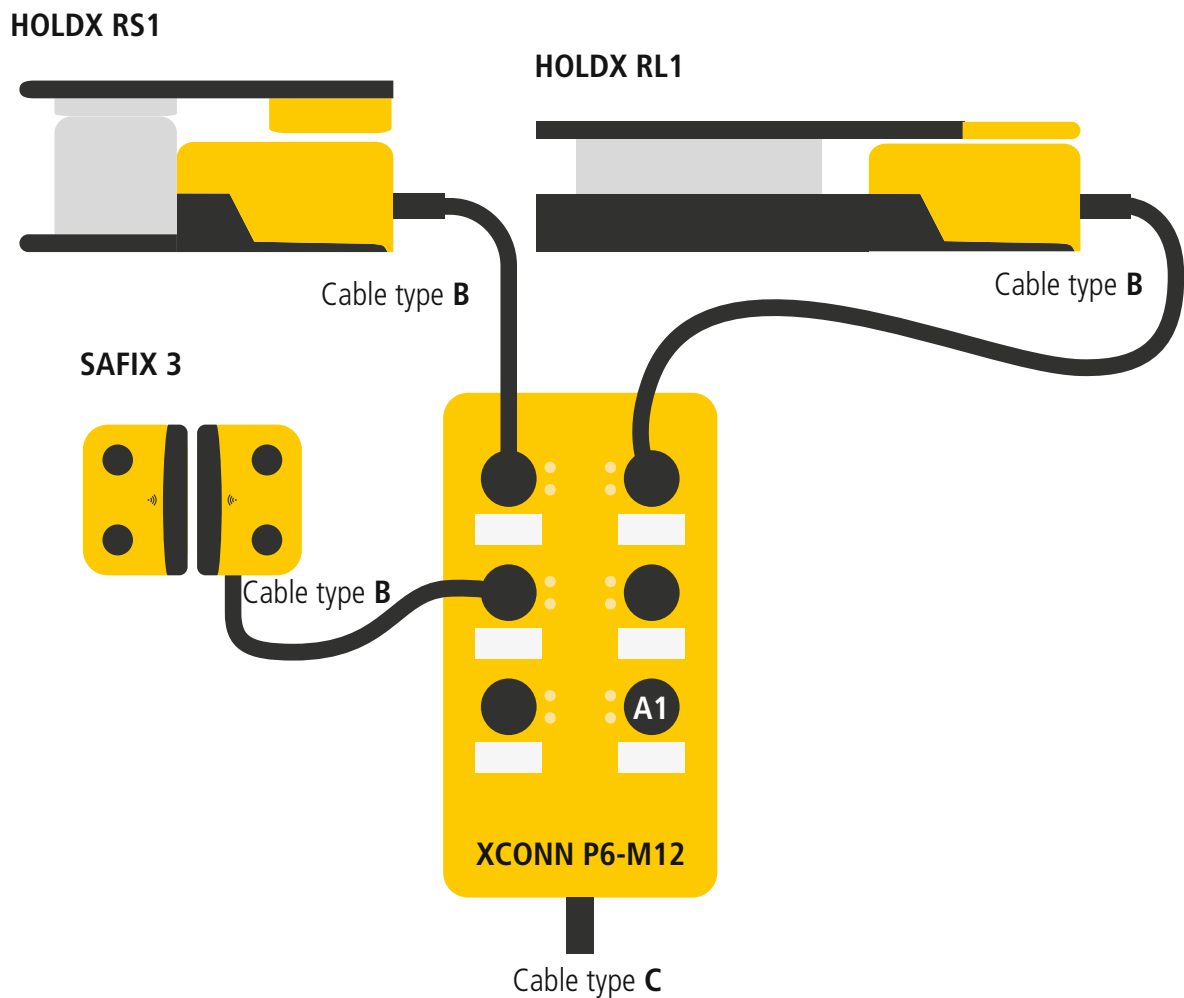
The safe wireless distributors with the functions of the Safety Simplifier can take over the entire safety technology of your system.

A higher-level safety control is not necessary..



Safety Simplifier

Connection cables overview



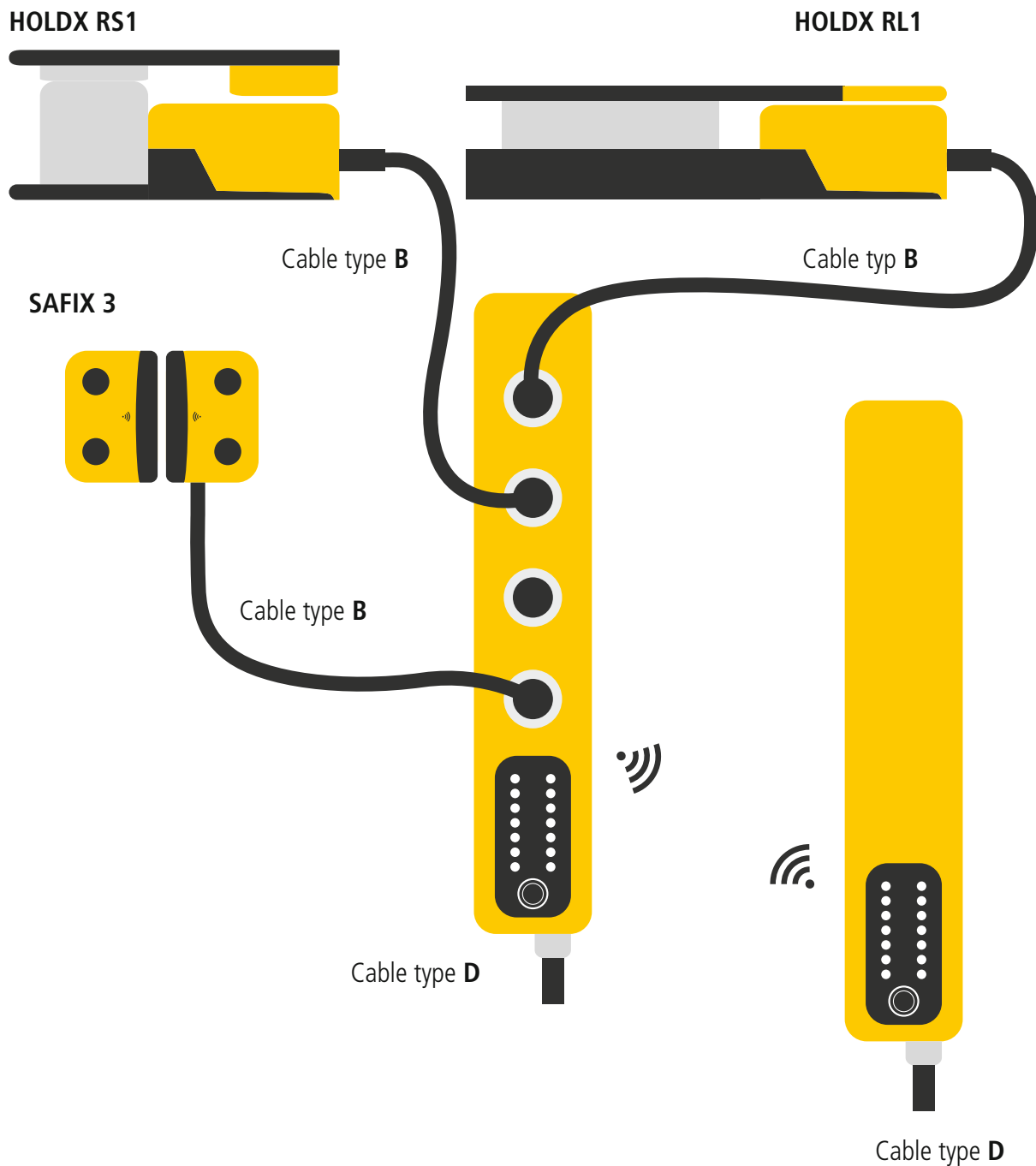
Cable types

- Cable type **B** connection line SAFIX 3, HOLDX S1 and HOLDX R1
- Cable type **C** connection line for M23 plug connection 19-pin
- Cable type **D** connection line for M12 plug connection 5 pin for Safety Simplifier



WIRELESS





Safety Communication
SIL 3, Ple, cat 4



SAFIX 3

Order lists SAFIX 3

SAFIX 3 - RFID safety sensor

Product image	Name	Coding	EDM/reset	Connection	Item no.
SAFIX 3 - Sensors					
	SAFIX S3-A-P	standard	automatic	pigtail M12 8-pin	SP-E-76-000-01
	SAFIX S3-X-P	standard	manual	pigtail M12 8-pin	SP-E-76-000-02
	SAFIX W3-A-P	reteachable high	automatic	pigtail M12 8-pin	SP-E-76-000-05
	SAFIX W3-X-P	reteachable high	manual	pigtail M12 8-pin	SP-E-76-000-06
	SAFIX S3-A-10M	standard	automatic	cable 10 m	SP-E-76-000-08
	SAFIX S3-X-10M	standard	manual	cable 10 m	SP-E-76-000-12
	SAFIX W3-A-10M	reteachable high	automatic	cable 10 m	SP-E-76-000-24
	SAFIX W3-X-10M	reteachable high	manuell	cable 10 m	SP-E-76-000-28
	SAFIX S3-A-5M	standard	automatic	cable 5 m	SP-E-76-000-10
	SAFIX S3-X-5M	standard	manual	cable 5 m	SP-E-76-000-14
	SAFIX W3-A-5M	reteachable high	automatic	cable 5 m	SP-E-76-000-26
	SAFIX W3-X-5M	reteachable high	manual	cable 5 m	SP-E-76-000-30
SAFIX 3 kit - sensors incl. SAFIX T5 standard actuator					
	SAFIX SET I3-A-P	individual high	automatic	pigtail M12 8-pin	SP-E-76-000-33
	SAFIX SET I3-X-P	individual high	manual	pigtail M12 8-pin	SP-E-76-000-34
	SAFIX SET I3-A-10M	individual high	automatic	cable 10 m	SP-E-76-000-46
	SAFIX SET I3-X-10M	individual high	manual	cable 10 m	SP-E-76-000-50
	SAFIX SET I3-A-5M	individual high	automatic	cable 5 m	SP-E-76-000-48
	SAFIX SET I3-X-5M	individual high	manual	cable 5 m	SP-E-76-000-52

Product image	Name	Article information	Item no.
SAFIX 3 - Actuator			



SAFIX T5

standard actuator

SP-E-76-000-00



SAFIX T6

flat actuator

SP-E-76-000-61

Product Image	Name	Article information	Item no.
SAFIX 3 - Equipment			

SAFIX Z B5

installation kit for wing doors aluminum profiles, SAFIX (S, I, W)

SP-K-71-000-08

SAFIX Z B6

installation kit for sliding doors aluminum profiles, SAFIX (S, I, W)

SP-K-71-000-09

SAFIX Z-S12T

screw kit 4 x M4x12 incl. torx bit T20H

SP-E-76-000-11

Product image	Name	Length	Article information	Item no.
SAFIX 3 - Cable				

C8D5

5 m

M12 male connector, 8-pin open end

SP-R-13-309-80

C8D10

10 m

M12 male connector, 8-pin open end

SP-R-13-309-81

C8D15

15 m

M12 male connector, 8-pin open end

SP-R-13-309-82

C8D25

25 m

M12 male connector, 8-pin open end

SP-R-13-309-67

C8D40

40 m

M12 male connector, 8-pin open end

SP-R-13-309-66


Connecting cable for XCONN or Safety Simplifier on Page 43




HOLDX

Order lists HOLDX R1 - HOLDX R2

HOLDX R1 - smart process interlock standalone

Product image	Name	Locking force	Coding	Network	Connection	Item no.
HOLDX RS1						
	RS1-P8-S-B	600 N	Standard	Standalone	1 x Pigtail 8-pin	SP-X-71-001-04
	RS1-P8-W-B	600 N	Individual reteachable	Standalone	1 x Pigtail 8-pin	SP-X-71-001-05
	RS1-P12-S-B	600 N	Standard	Standalone	1 x Pigtail 12-pin	SP-X-71-001-20
	RS1-P12-W-B	600 N	Individual reteachable	Standalone	1 x Pigtail 12-pin	SP-X-71-001-21

HOLDX RL1						
	RL1-P8-S-B	1200 N	Standard	Standalone	1 x Pigtail 8-pin	SP-X-71-001-06
	RL1-P8-W-B	1200 N	Individual reteachable	Standalone	1 x Pigtail 8-pin	SP-X-71-001-07
	RL1-P12-S-B	1200 N	Standard	Standalone	1 x Pigtail 12-pin	SP-X-71-001-22
	RL1-P12-W-B	1200 N	Individual reteachable	Standalone	1 x Pigtail 12-pin	SP-X-71-001-23

Product image	Name	Länge	Article information
Cable type A			
	C8D5	5 m	M12 male connector, 8-pin open end SP-R-13-309-80
	C8D10	10 m	M12 male connector, 8-pin open end SP-R-13-309-81
	C8D15	15 m	M12 male connector, 8-pin open end SP-R-13-309-82
	C8D25	25 m	M12 male connector, 8-pin open end SP-R-13-309-67
	C8D40	40 m	M12 male connector, 8-pin open end SP-R-13-309-66

www.safety-products.de



HOLDX R2 - smart process interlock networkable

Productimage	Name	Locking force	Coding	Vernetzung	Connection	Item no.
--------------	------	---------------	--------	------------	------------	----------

HOLDX RS2



RS2-CC-S	600 N	Standard	Slave	2 x Pigtail 8-pin	SP-X-71-001-08
RS2-CC-W	600 N	Individual reteachable	Slave	2 x Pigtail 8-pin	SP-X-71-001-09
RS2-CS-P8-S-B	600 N	Standard	Master	2 x Pigtail 8-pin	SP-X-71-001-10
RS2-CS-P8-W-B	600 N	Individual reteachable	Master	2 x Pigtail 8-pin	SP-X-71-001-11
RS2-CS-P12-S-B	600 N	Standard	Master	2 x Pigtail - 8-pin/12-pin	SP-X-71-001-24
RS2-CS-P12-W-B	600 N	Individual reteachable	Master	2 x Pigtail - 8-pin/12-pin	SP-X-71-001-25

HOLDX RL2



RL2-CC-S	1200 N	Standard	Slave	2 x Pigtail 8-pin	SP-X-71-001-12
RL2-CC-W	1200 N	Individual reteachable	Slave	2 x Pigtail 8-pin	SP-X-71-001-13
RL2-CS-P8-S-B	1200 N	Standard	Master	2 x Pigtail 8-pin	SP-X-71-001-14
RL2-CS-P8-W-B	1200 N	Individual reteachable	Master	2 x Pigtail 8-pin	SP-X-71-001-15
RL2-CS-P12-S-B	1200 N	Standard	Master	2 x Pigtail - 8-pin/12-pin	SP-X-71-001-26
RL2-CS-P12-W-B	1200 N	Individual reteachable	Master	2 x Pigtail - 8-pin/12-pin	SP-X-71-001-27

Productimage	Name	Length	Article information	Item no.
--------------	------	--------	---------------------	----------

Cable type A (HOLDX-Master to control cabinet)

C8D5	5 m	M12 male connector, 8-pin open end	SP-R-13-309-80
C8D10	10 m	M12 male connector, 8-pin open end	SP-R-13-309-81
C8D15	15 m	M12 male connector, 8-pin open end	SP-R-13-309-82
C8D25	25 m	M12 male connector, 8-pin open end	SP-R-13-309-67
C8D40	40 m	M12 male connector, 8-pin open end	SP-R-13-309-66

Cable type B (HOLDX-Master-Slave and Slave-Slave)

M12-M12-C-C8053-G PUR	0,5 m	M12-Female connector, 8-pin - M12-Male connector	SP-X-33-000-55
M12-M12-C-C813-G PUR	1 m	M12-Female connector, 8-pin - M12-Male connector	SP-X-33-000-56
M12-M12-C-C823-G PUR	2 m	M12-Female connector, 8-pin - M12-Male connector	SP-X-33-000-57
M12-M12-C-C853-G PUR	5 m	M12-Female connector, 8-pin - M12-Male connector	SP-X-33-000-58
M12-M12-C-C8103-G PUR	10 m	M12-Female connector, 8-pin - M12-Male connector	SP-X-33-000-59

HOLDX

Order lists HOLDX

Product image	Name	Lenght	Article information	Item no.
---------------	------	--------	---------------------	----------

Cable type C (external voltage supply)

	M12-M12-M12-C50158-G PVC		Y-Cable HOLDX, external voltage supply	SP-X-33-000-70
--	--------------------------	--	--	----------------

Cable type D (connection cable external voltage supply)

	C5	5 m	M12-Cable, 5-pin, 5 m	SP-R-13-309-50
	C10	10 m	M12-Cable, 5-pin, 10 m	SP-R-13-309-56
	C15	15 m	M12-Cable, 5-pin, 15 m	SP-R-13-309-52
	C25	25 m	M12-Cable, 5-pin, 25 m	SP-R-13-309-49

Product image	Name	Article information	Item no.
---------------	------	---------------------	----------

HOLDX RS anchor plate



	HOLDX RS-A1	anchor plate with RFID tag - permanent magnet 50 N	SP-X-71-001-42
	HOLDX RS-A2	anchor plate with RFID Tag - no permanent magnet	SP-X-71-001-43

HOLDX RL anchor plate



	HOLDX RL-A1	anchor plate with RFID tag - permanent magnet 50 N	SP-X-71-001-40
	HOLDX RL-A2	anchor plate with RFID Tag - no permanent magnet	SP-X-71-001-41

Product image	Name	Article information	Item no.
---------------	------	---------------------	----------

HOLDX R - equipment







	HOLDX R1	Bridging plug 120 Ohm for HOLDX_R2	SP-X-71-002-06
	HOLDX RL-Z-MF1	HOLDX RL installation kit wing doors	SP-X-71-002-00
	HOLDX RL-Z-MS1	HOLDX RL installation kit for sliding doors	SP-X-71-002-01
	HOLDX RS-Z-MF1	HOLDX RS installation kit for wing doors	SP-X-71-002-02
	HOLDX RS-Z-MS1	HOLDX RS installation kit for sliding doors	SP-X-71-002-03

Connection cable for XCONN or Safety Simplifier on page 43

XCONN

Order lists XCONN





Product image	Name	Article information	Item no.
Passive distributor XCONN - 6 slots M12 8-pin			
	XCONN P6-M12-5m	connector 5 m cable	SP-X-71-000-00
	XCONN P6-M12-10m	connector 10 m cable	SP-X-71-000-04
	XCONN P6-M12-M23	connector M23 19-pin	SP-X-71-000-01
XCONN - equipment			
 	XCONN A1	Bridging plug M12 8-pin	SP-X-71-000-03
	XCONN Y2-M12	Y-Connection module M12 8-pin SAFIX 3 & HOLDX R1	SP-X-33-000-71
	XCONN Y3-M12	Y-Connection module M12 8-pin Reset button EDI D1B & EOS4 X	SP-X-33-000-75
	XCONN Y4-M12	Y-Connection module M12 8-pin E-Stop/Reset button EDI C7 & EOS4X	SP-X-33-000-76



Safety Simplifier

Order lists Safety Simplifier

Safety Simplifier - wireless distributor

Product image	Name	Article information	Item no.
Wireless distributor Safety Simplifier - 4 slots M12 5-pin			
	S14LDRB-H10-Q1A-Q2A-Q3C-Q4A-Q5I-Q6I-Q7I-Q8I-W34		SP-X-89-100-01
	S16LDRB-H10-Q1A-Q2A-Q3A-Q4A		SP-X-89-000-03
	S14LDRB-H10-Q1A-Q2A-Q3A-Q4A		SP-X-89-000-04
	Simplifier SRM	Simplifier radio monitor	SP-N-88-850-03
	Simplifier ZMS	Mounting plate small	SP-N-88-850-01
	Simplifier ZMB	Mounting plate large	SP-N-88-850-02
	Simplifier ZSD	Bolt with seal	SP-N-88-001-89

www.safety-products.de



Order lists connection cables

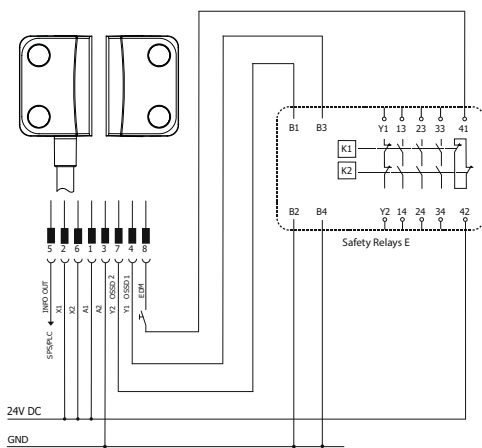
Connection lines according to cable type p.34

Product image	Name	Length	Article information	Item no.
Cable (type B) connection line SAFIX 3, HOLDX S1 and HOLDX R_1				
	M12-M12-C823-G	2 m	M12-male connector, 8-pin - M12-male connector	SP-X-33-000-07
	M12-M12-C853-G	5 m	M12-male connector, 8-pin - M12-male connector	SP-X-33-000-08
	M12-M12-C8103-G	10 m	M12-male connector, 8-pin - M12-male connector	SP-X-33-000-09
Cable (type C) connection line for M23 plug connection 19-pin				
	M23-C19101-G	10 m	M23 male connector, 19-pin - open end	SP-X-33-000-19
	M23-C19201-G	20 m	M23 male connector, 19-pin - open end	SP-X-33-000-20
Cable (type D) connection line for M12 plug connection 5-pin for Safety Simplifier				
	CD5	5 m	M12 male connector, 5-pin - open end	SP-R-13-309-50
	CD10	10 m	M12 male connector, 5-pin - open end	SP-R-13-309-56
	CD20	20 m	M12 male connector, 5-pin - open end	SP-R-12-100-32

Wiring examples

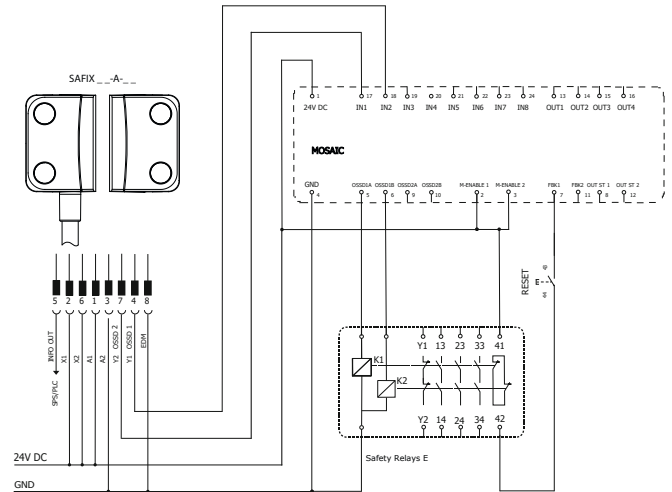
Example 1:

RFID sensor SAFIX 3 with safety relay E series

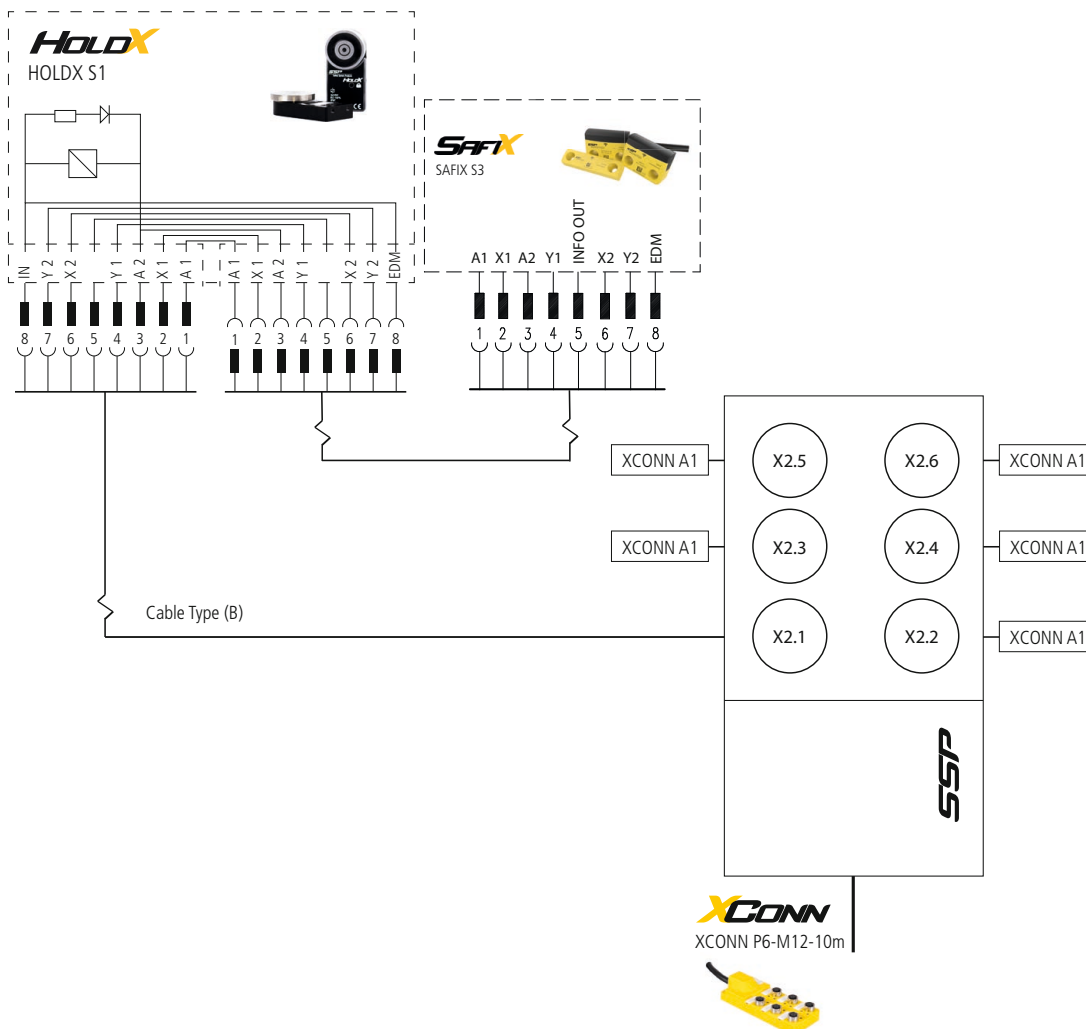


Example 2:

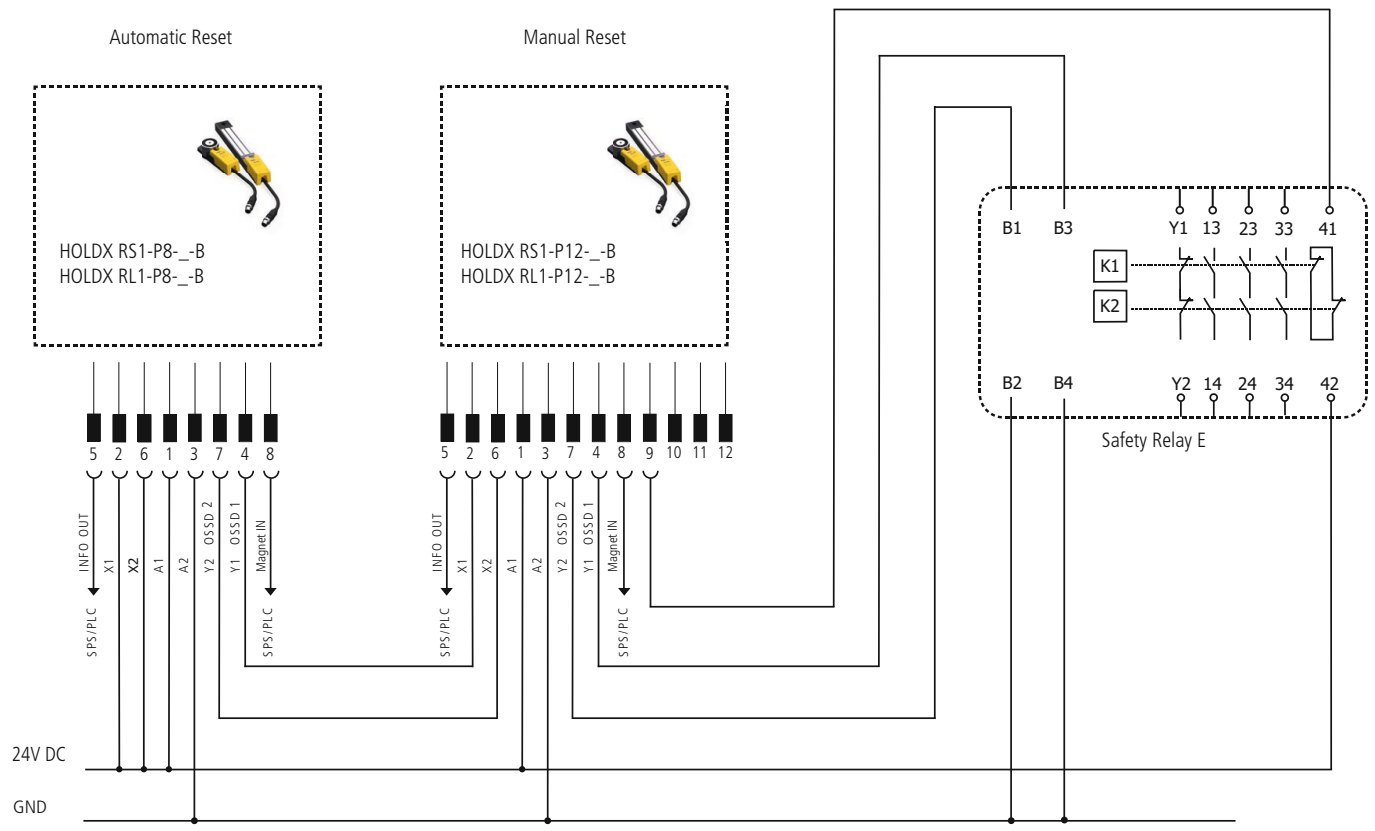
RFID sensor SAFIX 3 with safety PLC MOSAIC



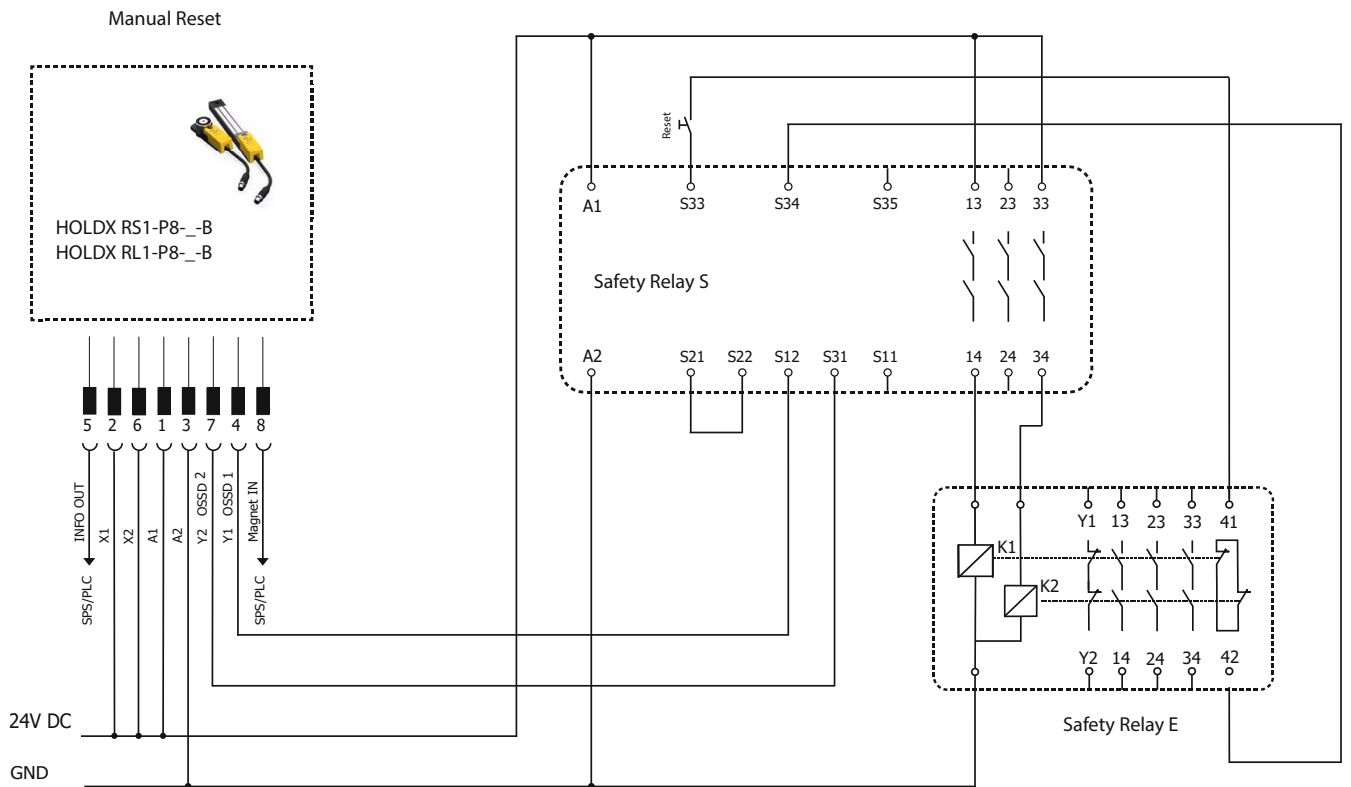
Example 3: Wiring concept SAFIX 3, HOLDX S1 & XCONN



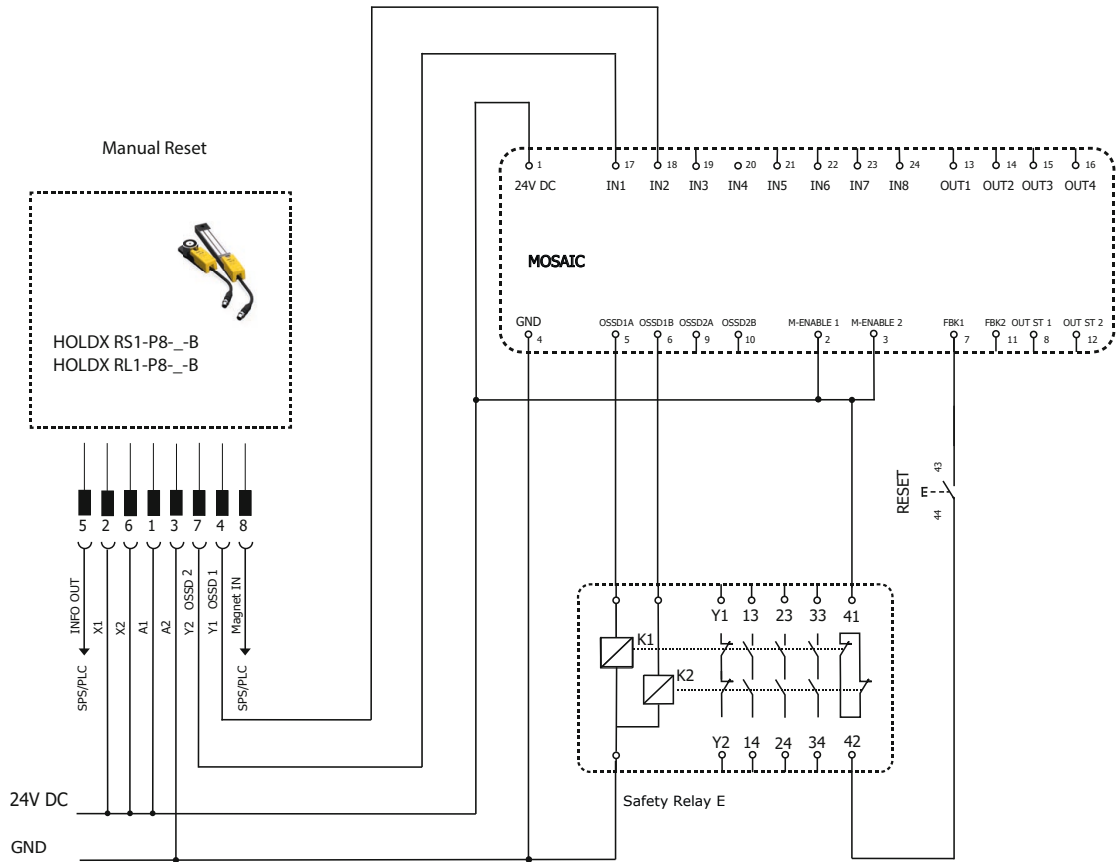
Example 4: Series connection of two smart HOLDX R_1 process guard lockings with E series safety relays and manual reset



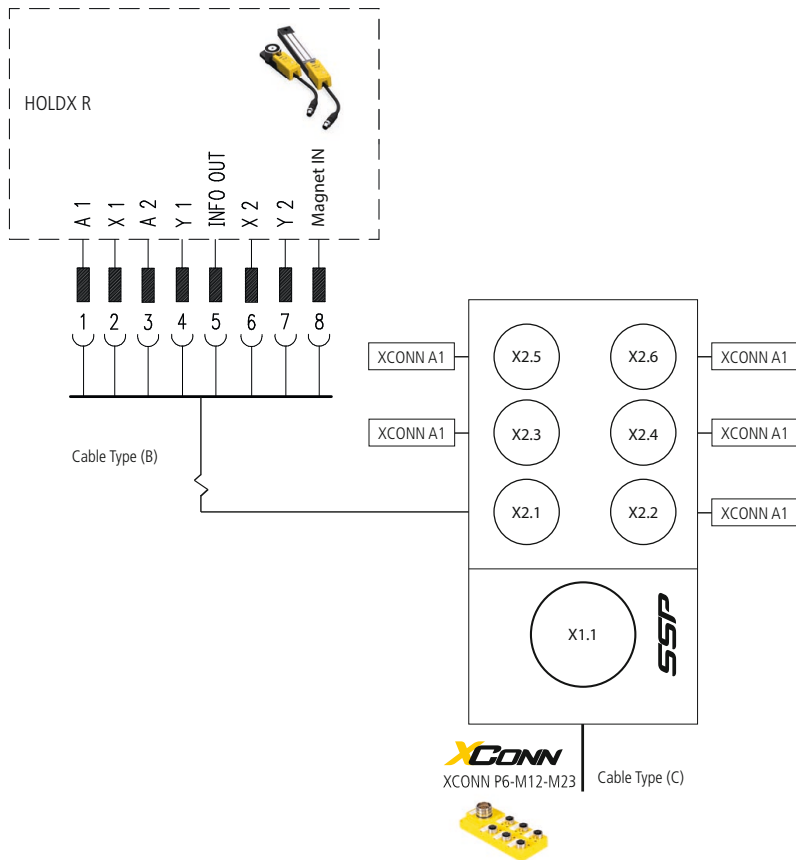
Example 5: Smart process guard locking HOLDX R_1 with safety relay S series



Example 6: Smart process guard locking HOLDX R_1 with safety PLC MOSAIC



Example 7: Wiring concept HOLDX R_1 & XCONN



SSP

Safety System Products

SSP Safety System Products GmbH & Co. KG

Zeppelinweg 4 · 78549 Spaichingen

Tel. +49 7424 98049-0 · Fax +49 7424 98049-99

www.safety-products.de · [info@ssp.de.com](mailto:info@ssp.de)

INTERNATIONAL PARTNERS

Find them on our website

www.safety-products.de



Our contribution

Environmentally friendly paper

FSC®, EU Ecolabel



Modifications and errors excepted

April 2022 | 3.0

1001870

we simplify safety