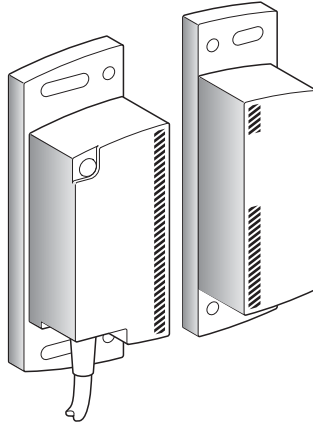


**Coded magnetic system
Pre-cabled connection**

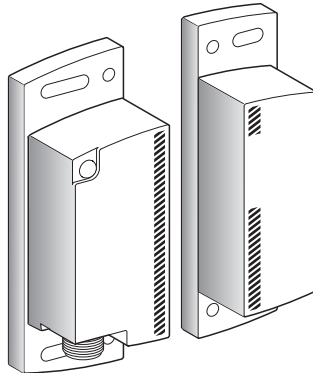
SIL 2 and 3/Categories 3 and 4
XCS DM3791●● / XCS DM4801●●



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**Coded magnetic system
M12 connector connection**

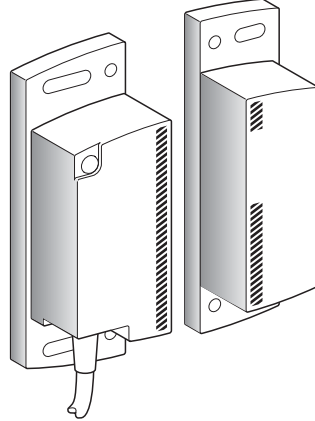
SIL 2 and 3/Categories 3 and 4
XCS DM3791M12/ XCS DM4801M12



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Coded magnetic system type		SIL2/Category 3 XCS DM3	SIL3/Category 4 XCS DM4
Environment			
Conformity to standards		IEC 61508, EN/IEC 62061(SIL2 and SIL3), EN 13849-1 (Category 3 and Category 4), EN 1088/ISO 14119, EN/IEC 60947-5-1; EN/IEC 60947-5-2 ; EN/IEC 60947-5-3	
Product certifications		CE, UL, CSA, TÜV	
Ambient air temperature	For operation	°C	-25...+70°C
	For storage	°C	-40...+85°C
Vibration resistance	Conforming to IEC 60068-2-6		10 gn (10...500 Hz)
Shock resistance	Conforming to IEC 60068-2-7		30 gn, 11 ms
Sensitivity to magnetic fields		mT	≤ 0,5
Electric shock protection	Conforming to IEC 61140		Class III
Degree of protection	Conforming to IEC 60529		Pre-cabled version: IP 66, IP 67 Connector version: IP 67
	Conforming to DIN 40050		Pre-cabled version: IP 69K
Materials		Thermoplastic case (PBT); PVC cable	
Characteristics			
Rated operational characteristics		U _b : ± 24 V + 10% - 20%	
Rated insulation voltage (U _i)		U _i : ± 36V	
Rated impulse withstand voltage (U _{imp})	Conforming to EN 60947-5-1	kV	2,5
Integrated output protection		Overload and short-circuit protection	
Connection	Conforming to IEC 60947-5-2-A3 and IEC 61076		Pre-cabled, 6 x 0.25 mm ² , length: 2, 5 or 10 m depending on model or M12 connector (A coding) Pre-cabled, 8 x 0.25 mm ² , length: 2, 5 or 10 m depending on model or M12 connector
Cable diameter		mm	6,1 +/-0,3
Cable resistance		mΩ/m	90
Safety outputs (OSSD) (Output Signal Switching Devices)		2 PNP type (NO) solid-state outputs, 1.5 A (2 A up to 60°C), ± 24 V (short-circuit protected)	
Alarm output			1 solid-state output, 0.5 A, ± 24 V, PNP
Signalling			LED (green/red/orange)
Maximum switching frequency		Hz	3
Activation delay		ms	100
Discordance time		s	2
HFT (Hardware Fault Tolerance)			1 Test interval: 12 months
Tightening torque		Nm	1,8 maxi.
Chaining in series			32 maximum with 2 m long cable -
Functions			
Functions		- LED status signalling	- Auto/Manual start via "Start" input - Monitoring of external switching devices (EDM: External Devices Monitoring) - Display of operating modes (LED) - Monitoring of the function (open or closed) as well as the response time of the power components.

Type **Magnetic system with dedicated transmitter**
Pre-cabled connection



References				
Description	Type of connection	SIL2/Category 3	SIL3/Category 4	Weight kg
Magnetic system with dedicated transmitter (1)	Pre-cabled, L = 2 m	XCS DM379102	XCS DM480102	0,320
	Pre-cabled, L = 5 m	XCS DM379105	XCS DM480105	0,480
	Pre-cabled, L = 10 m	XCS DM379110	XCS DM480110	0,745

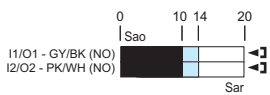
(1) Self-contained system not requiring use of safety module or non-magnetic shim.

Detection characteristics	
Assured operating distance	Sao : 10 mm
Assured tripping distance	Sar : 20 mm
Approach directions	9
Approach speed	0,01 m/s mini

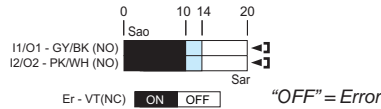
Output status (pre-cabled connection)

Output states shown are with the dedicated transmitter positioned in front of the receiver.

XCS DM3791●●



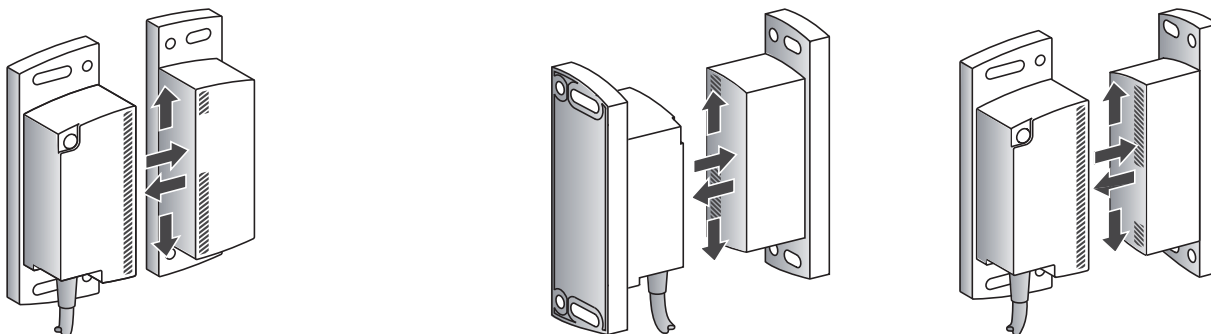
XCS DM4801●●



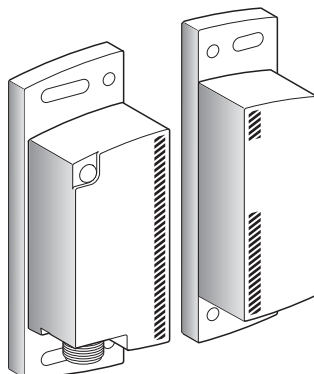
- Output closed
- Output open
- Transitional state

Sao : Assured operating distance.
Sar : Assured tripping distance.
Conforming to EN/IEC 60947-5-3

Approach directions



Type	Magnetic system with dedicated transmitter
	M12 connector connection



References				
Description	Type of connection	SIL3/Category 3	SIL4/Category 4	Weight kg
Magnetic system with dedicated transmitter (1)	M12 connector	XCS DM3791M12	XCS DM4801M12	0,215

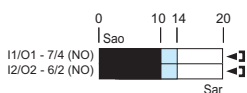
1) Self-contained system not requiring use of safety module or non-magnetic shim.

Detection characteristics	
Assured operating distance	Sao : 10 mm
Assured tripping distance	Sar : 20 mm
Approach directions	9
Approach speed	0,01 m/s mini

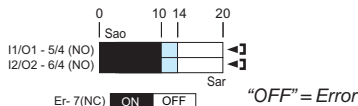
Output status (pre-cabled connection)

Output states shown are with the dedicated transmitter positioned in front of the receiver.

XCS DM3791M12



XCS DM4801M12



- Output closed
- Output open
- Transitional state

Sao : Assured operating distance.
Sar : Assured tripping distance.
Conforming to EN/IEC 60947-5-3

Accessories			
Description	For use with	Reference	Weight kg
Replacement dedicated transmitter	XCS DM3/4●●●02/05/10 XCS DM3/4●●●M12	XCS DMT	0,100
Arc suppressor (pair)	XCS DM3/4●●●02/05/10 XCS DM3/4●●●M12	XUS LZ500	0,020

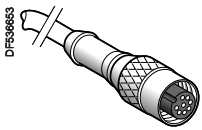
Pre-wired female connectors for connector version coded magnetic systems

Pre-wired connector characteristics

Pre-wired connector type		XZ CP29P12L●	
Type of connection		Screw threaded (metal clamping ring)	
Number of contacts		8	
Degree of protection		IP 67 (with clamping ring correctly tightened)	
Ambient air temperature	Operation	°C	- 25 ... + 70
	Storage	°C	- 40 ... + 85
Cabling	Conforming to IEC 60947-5-2	Ø 6.1 mm PUR cable, wire c.s.a.: 8 x 0.25 mm ²	
LED signalling		-	
Nominal current		A	2
Insulation resistance		Ω	> 10 ⁹
Contact resistance		mΩ	≤ 5

References of pre-wired connectors

Type of connector	No. of contacts	For use with	Type	Cable length m	Reference	Weight kg
Female, M12 (Coding A)	8	XCS DM3/4●●●02 XCS DM3/4●●●05 XCS DM3/4●●●10	Straight	2	XZ CP29P12L2	0,100
				5	XZ CP29P12L5	0,290
				10	XZ CP29P12L10	0,470



XZ CP29P12L●

Coded magnetic systems

Pre-cabled connection

XCS DM3/4●●●02/05/10

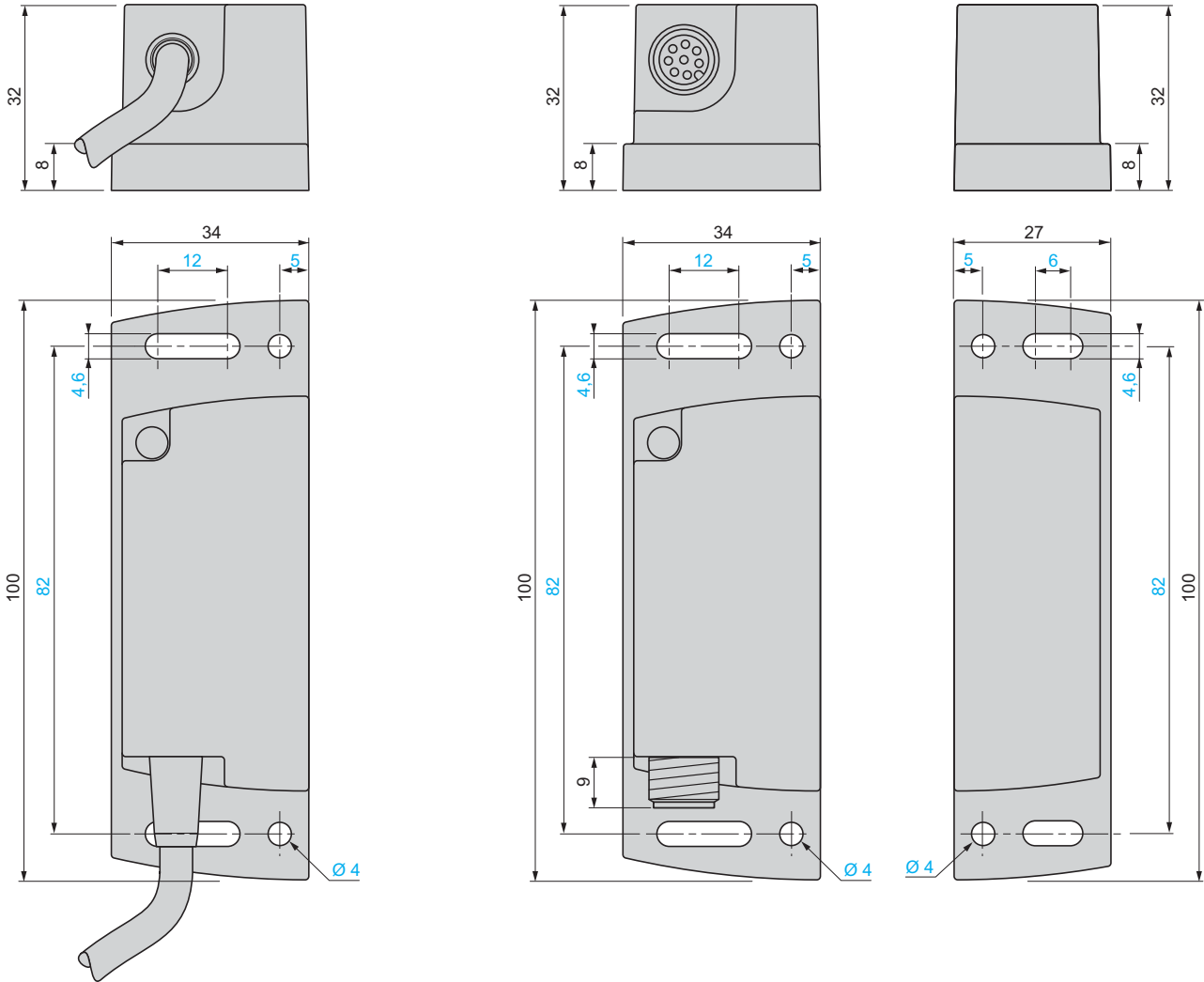
M12 connector (Coding A) connection

XCS DM3/4●●●M12

Accessory

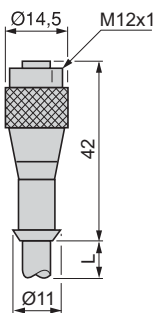
Replacement dedicated transmitter

XCS DMT



Pre-wired female connectors

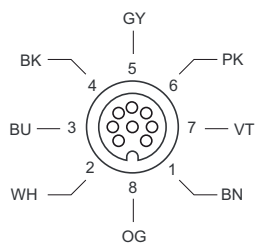
XZ CP29P12L●



Connection

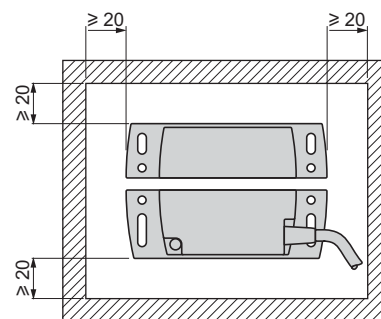
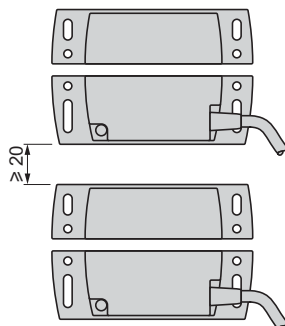
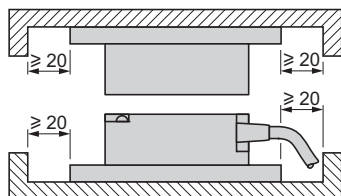
M12 pre-wired female connector

XZ CP29P12L●



Mounting

XCS DM3/DM4

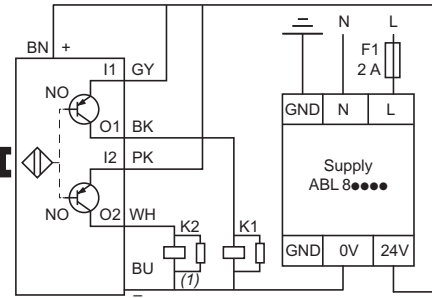


Schemes

Category 3 (this Category 3 scheme can attain SIL2)

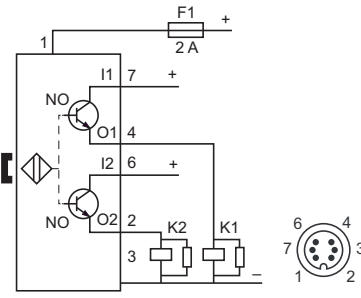
Pre-cabled connection

XCS DM3791●●



M12 connector (A coding) connection

XCS DM3791M12

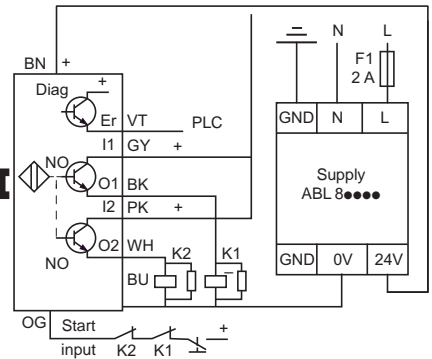


(1) Mechanically linked contacts

SIL3/Category 4

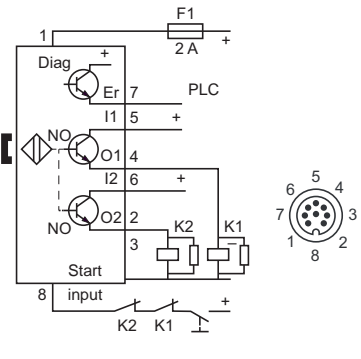
Pre-cabled connection

XCS DM4801●●



M12 connector (A coding) connection

XCS DM4801M12

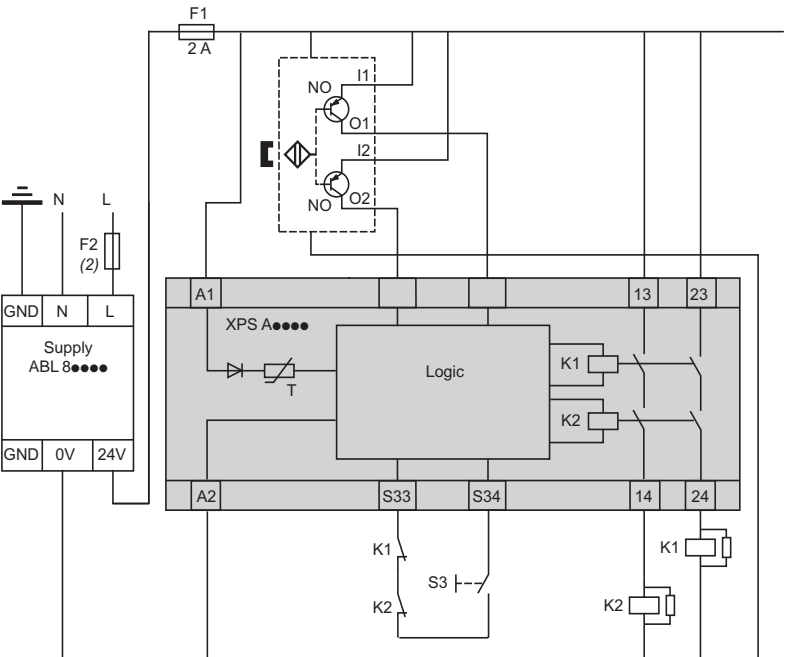
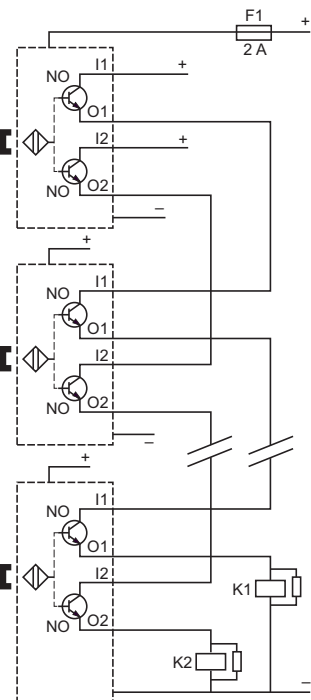


Chaining coded magnetic systems (1)

XCS DM3791●●

Wiring to SIL3/Category 4 with Preventa module

Example: XCS DM3●●●●● + XPS AFL5130



(1) Maximum chaining: 32 maximum with 2 m long cable.
 (2) 2A maxi