

Components for safety applications

Type 4 security light curtains

Detector type	Self-contained model		Compact model	
	XUS-LA1●●●●●●●●	XUS-LA3●●●●●●●●	XUS-LC1●●●●●●●●	XUS-LC3●●●●●●●●

Environment

Conformity	Product standards	IEC 9475-1, prEN 50100-2, EN 60947-5-1, UL 508, OSHA 1910-217
	European directives	Machinery directive 98/37/CE, health and safety directive 89/655/EEC and EMC directive 89/336 EEC
Product certifications		Type 4 conforming to prEN 50100-2 and EN 61496-1. CE type approval TÜV/Hanover, UL, c-UL
Ambient air temperature	°C	Operation: 0...+ 55, storage: - 30...+ 80
Relative humidity	%	10...85 (without condensation)
Degree of protection		IP 65
Shock and vibration resistance		Conforming to EN 61496-1, shocks: 10 g, impulse 16 ms, vibrations: 10 to 55 Hz, amplitude: 0.35 ± 0.05 mm
Materials		Extruded aluminium casing. Red epoxy paint RAL 3000. Protective window in PMMA.
Fixings		End brackets (supplied) or side brackets in T slot (to be ordered separately)

Optical characteristics

Detection capacity	mm	14 (finger)	29 (hand)	14 (finger)	29 (hand)
Nominal sensing distance	m	0.3...6	0.3...9	0.3...6	0.3...9
Height protected (Hp)	mm	254...1454	509...1949	254...1454	509...1949
Immunity to ambient light	lux	20,000, conforming to prEN 50100-2 (test B, halogen light, d.c.)			

Electrical characteristics

Response time	ms	28...66	28...51	15...53	15...38
Rated supply voltage	V	--- 24 (limits: --- 18...30), galvanically insulated		--- 24 (limits: --- 18...30)	
Maximum consumption (no load)	A	Transmitter: 0.8, Receiver: 1.1			
Immunity to interference		Level 3 conforming to EN 61496-1 (fast transient/burst interference)			
Inputs		1 reset input (restart). Ue = --- 24 V, Ie = 10 mA 1 power contactor monitoring input (EDM). Ue = --- 24 V, Ie = 10 mA 1 RS 485 link (dialogue with PC / software running under Windows)			
Safety outputs (OSSD) (Output Signal Switching Devices)		2 guided relays with 1 NO contact each Continuous self-monitoring. Breaking capacity in AC-15: C300 (inrush: 1800 VA, sealed: 180 VA) Breaking capacity in DC-13: --- 24 V/1.25 A, L/R = 50 ms Maximum thermal current (Ithe) = 6 A		2 solid state outputs PNP (NO), 1 A/ --- 24 V Continuous self-monitoring. Protection against short-circuits and overloads of inductive loads	
OSSD control output (Output Signal Switching Devices)		Guided relay, 1 NC contact Continuous self-monitoring Breaking capacity in AC-15: C300 (inrush: 1800 VA, sealed: 180 VA) Breaking capacity in DC-13: --- 24 V/1.25 A, L/R = 50 ms Maximum thermal current (Ithe) = 6 A		1 solid state output PNP (NC), 0.1 A/ --- 24 V Continuous self-monitoring. Protection against short-circuits and overloads of inductive loads	
Alarm output (weak signal)		1 solid state output PNP (NO), 0.1 A/--- 24 V protected against short-circuits and overloads of inductive loads			
Indication		Transmitter: 2 LEDs, Receiver: display module with 3 LEDs and 4-digit dialogue display			
Connections		Plug-in terminal blocks. Clamping capacity: 0.5 to 1.5 mm ² 3 cable entries (2 side and 1 end) for 13P (Pg 13.5) cable gland or ISO M20			

Operating characteristics

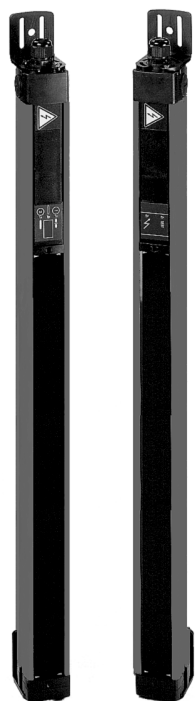
AUTO/MANUAL Reset		Reset selectable via the display and dialogue module
External Devices Monitoring (EDM)		Monitors the function (open or closed) and the response time of the power components Parameters can be set via the display and dialogue module
Dialogue modes		The display and dialogue module offers 4 dialogue modes: DIAG = diagnostics, INST = installation, READ = read, CONF = configure, REMO = remote
"Test" function		Causes the stop instruction to be sent to the detector by opening of the contact (simulated entry)
"Muting" function (inhibition)		Possible with external module

References :	30302/4	page 30302/6	pages 30302/8 and
pages 30302/3 and	Dimensions :	Schemes :	30302/9

Components for safety applications

Type 4 security light curtains

Self-contained security light curtain detectors with relay output



XUS-LA●●●●●●●●●●

Transmitter-receiver pairs for finger protection (1)

Detection capacity 14 mm. Sensing distance 0.3 to 6 m

Height protected mm	Response time ms	Reference	Weight kg
254	28	XUS-LA10602SBR2	3.200
374	32	XUS-LA10603SBR2	4.000
494	35	XUS-LA10605SBR2	5.000
614	39	XUS-LA10606SBR2	5.800
734	42	XUS-LA10607SBR2	6.600
854	47	XUS-LA10608SBR2	7.400
974	51	XUS-LA10609SBR2	8.200
1094	55	XUS-LA10610SBR2	9.000
1214	58	XUS-LA10612SBR2	10.000
1334	62	XUS-LA10613SBR2	10.800
1454	66	XUS-LA10614SBR2	11.600

Transmitter-receiver pairs for hand protection (1)

Detection capacity 29 mm. Sensing distance 0.3 to 9 m

Height protected mm	Response time ms	Reference	Weight kg
509	28	XUS-LA30905SBR2	5.000
749	32	XUS-LA30907SBR2	6.600
989	35	XUS-LA30909SBR2	8.200
1229	39	XUS-LA30912SBR2	10.000
1469	42	XUS-LA30914SBR2	11.600
1709	47	XUS-LA30917SBR2	13.200
1949	51	XUS-LA30919SBR2	14.800

Note: to order a receiver only, add the letter **R** to the reference of the corresponding transmitter/receiver assembly. To order a transmitter only, add the letter **T** to the reference of the corresponding transmitter/receiver assembly. Example: To order the receiver only from transmitter/receiver assembly **XUS-LA10602SBR2** the reference becomes **XUS-LA10602SBR2R**.

(1) Supplied complete with a test bar, control/power plug-in terminal blocks, 2 sets of 2 brackets with hardware and instruction manual with certificate of conformity.

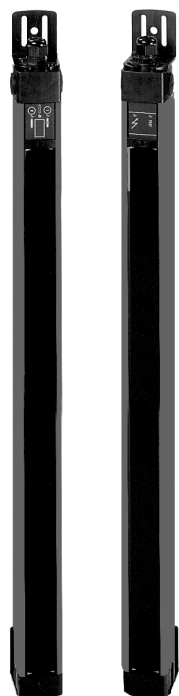
Other versions

Type 4 security light curtains, with other types of connection.
External module for muting function.
Please consult your Regional Sales Office.

Components for safety applications

Type 4 security light curtains

Compact security light curtain detectors with sold state output



XUS-LC.....

Transmitter-receiver pairs for finger protection (1)

Detection capacity 14 mm. Sensing distance 0.3 to 6 m

Height protected mm	Response time ms	Reference	Weight kg
254	15	XUS-LC10602SBS2	2.600
374	19	XUS-LC10603SBS2	3.400
494	22	XUS-LC10605SBS2	4.200
614	26	XUS-LC10606SBS2	5.000
734	30	XUS-LC10607SBS2	5.800
854	34	XUS-LC10608SBS2	6.600
974	38	XUS-LC10609SBS2	7.400
1094	42	XUS-LC10610SBS2	8.200
1214	45	XUS-LC10612SBS2	9.000
1334	49	XUS-LC10613SBS2	10.000
1454	53	XUS-LC10614SBS2	10.800

Transmitter-receiver pairs for hand protection (1)

Detection capacity 29 mm. Sensing distance 0.3 to 9 m

Height protected mm	Response time ms	Reference	Weight kg
509	15	XUS-LC30905SBS2	4.200
749	19	XUS-LC30907SBS2	5.800
989	23	XUS-LC30909SBS2	7.400
1229	26	XUS-LC30912SBS2	9.000
1469	30	XUS-LC30914SBS2	10.800
1709	34	XUS-LC30917SBS2	12.600
1949	38	XUS-LC30919SBS2	14.400

Note: to order a receiver only, add the letter **R** to the reference of the corresponding transmitter/receiver assembly. To order a transmitter only, add the letter **T** to the reference of the corresponding transmitter/receiver assembly. Example: To order the receiver only from transmitter/receiver assembly **XUS-LC10602SBS2** the reference becomes **XUS-LC10602SBS2R**.

(1) Supplied complete with a test bar, control/power plug-in terminal blocks, 2 sets of 2 brackets with hardware and instruction manual with certificate of conformity.

Other versions

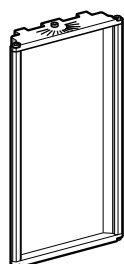
Type 4 security light curtains, with other types of connection.
External module for muting function.
Please consult your Regional Sales Office.

Components for safety applications

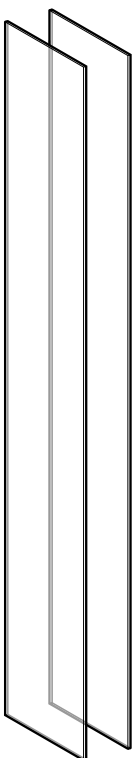
Type 4 security light curtains
Accessories and spare parts



ABL-6RF●●●●●●



XUS-Z3●●



XUS-LZ1●●

Rectified supplies, smoothed, with 5 x 20 protection fuse

Mains input voltage 50/60 Hz ~ V	Nominal output voltage V	Nominal power W	For use with light curtains	Reference	Weight kg
105-120-135 (± 10%) 225-240-255 (± 10%) single-phase	24	24	XUS-L●●1060●SB●2 XUS-L●309●●SB●2	ABL-6RF2401G2	1.300
		60	XUS-L●1061●SB●2	ABL-6RF2402G2	2.000

90° mirror adaptors

Description	Height mm	For use with light curtains	Reference	Weight kg
90° mirror adaptors with adjustable brackets	400	XUS-L●●0●02SB●2/03SB●2	XUS-Z304	2.050
	600	XUS-L●●0●05SB●2	XUS-Z306	4.650
	800	XUS-L●●0●06SB●2/07SB●2	XUS-Z308	6.000
	1000	XUS-L●●0●08SB●2/09SB●2	XUS-Z310	7.300
	1200	XUS-L●●0●10SB●2	XUS-Z312	8.600
	1400	XUS-L●●0●12SB●2/13SB●2	XUS-Z314	10.000
	1600	XUS-L●●0●14SB●2	XUS-Z316	11.300

Other accessories and spare parts

Description		For use with light curtains	Reference	Weight kg
Set of 4 end brackets + hardware		XUS-L all types	XUS-LZ211	0.800
Set of 4 brackets for side fixing + hardware		XUS-L all types	XUS-LZ212	1.000
Instruction manual (5 languages)		XUS-L all types	XUS-LZ440	0.300
Test bars	Ø 14 mm	XUS-LA1/LC1	XUS-LZ240	0.050
	Ø 29 mm	XUS-LA3/LC3	XUS-LZ241	0.060
Set of 2 transparent transparent protectors with seals and beading		XUS-L●●0●02SB●2	XUS-LZ102	0.200
		XUS-L●●0●03SB●2	XUS-LZ103	0.250
		XUS-L●●0●05SB●2	XUS-LZ105	0.300
		XUS-L●●0●06SB●2	XUS-LZ106	0.400
		XUS-L●●0●07SB●2	XUS-LZ107	0.450
		XUS-L●●0●08SB●2	XUS-LZ108	0.500
		XUS-L●●0●09SB●2	XUS-LZ109	0.550
		XUS-L●●0●10SB●2	XUS-LZ110	0.600
		XUS-L●●0●12SB●2	XUS-LZ120	0.700
		XUS-L●●0●13SB●2	XUS-LZ130	0.800
		XUS-L●●0●14SB●2	XUS-LZ140	0.900
		XUS-L●●0●17SB●2	XUS-LZ170	1.000
		XUS-L●●0●19SB●2	XUS-LZ190	1.100
Set of plug-in terminal blocks (1 for transmitter, 2 for receiver: power circuit + control circuit)		XUS-L all types	XUS-LZ210	0.200
End plug with 3 cable entries		XUS-L all types	XUS-LZ220	0.200
End plug		XUS-L all types	XUS-LZ230	0.200

Components for safety applications

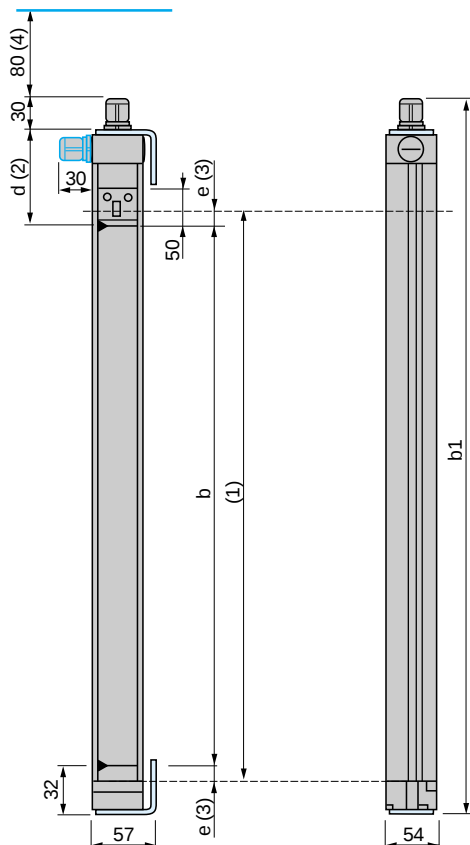
Type 4 security light curtains

Self-contained with relay outputs and compact with solid state outputs

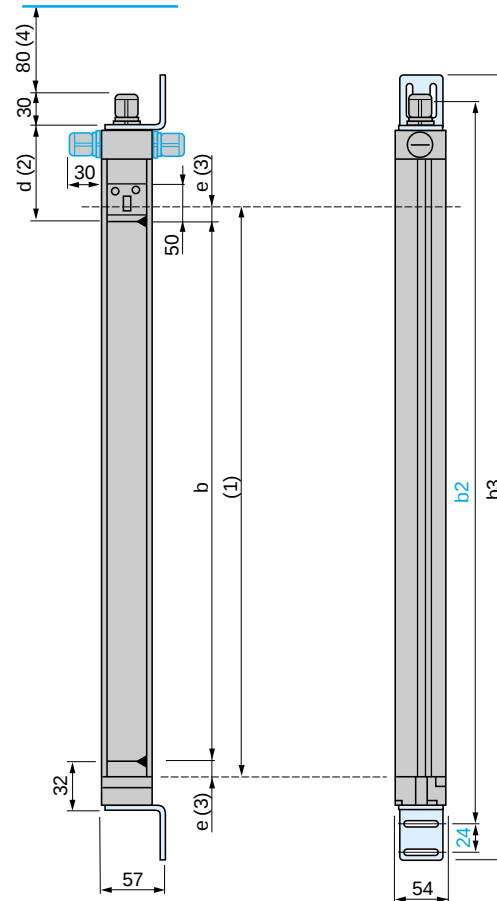
XUS-LA●●●●●, XUS-LC●●●●●

Fixing with end brackets

Mounting 1



Mounting 2



(1) Height protected (Hp) = $b + 2e$.

(2) Self-contained security light curtain detectors **XUS-LA**●●●●●●: d = 214, compact security light curtain detectors **XUS-LC**●●●●●●: d = 94.

(3) XUS-L●106●●● (finger protection): e = 7.5, XUS-L●309●●● (hand protection): e = 15.

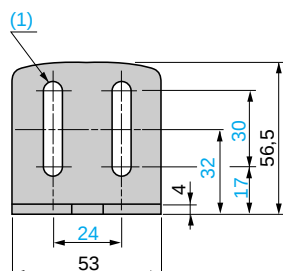
(4) Distance to be left clear

XUS-	b	b1	b2	b3
LA10602●	239	514	528	589
LA10603●	359	634	648	709
LA10605●, LA30905●	479	754	768	829
LA10606●	599	874	888	949
LA10607●, LA30907●	719	994	1008	1069
LA10608●	839	1114	1128	1189
LA10609●, LA30909●	959	1234	1248	1309
LA10610●	1079	1354	1368	1429
LA10612●, LA30912●	1199	1474	1488	1549
LA10613●	1319	1594	1608	1669
LA10614●, LA30914●	1439	1714	1728	1789
—, LA30917●	1679	1954	1968	2029
—, LA30919●	1919	2194	2208	2269

Details of end brackets

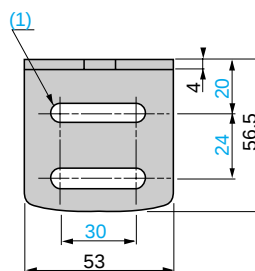
Bracket with vertical slots

(to be fitted, preferably, on cable gland side)



(1) 2 elongated holes, width 5.8

Bracket with horizontal slots



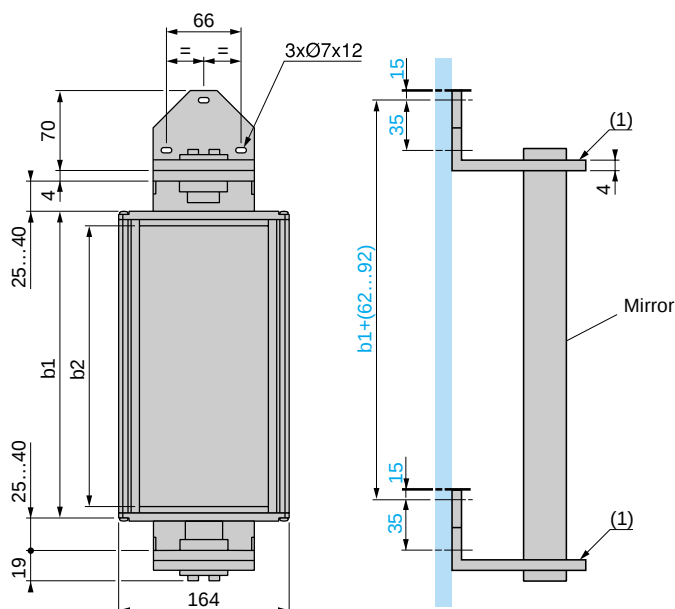
(1) 2 elongated holes, width 5.8

Components for safety applications

Type 4 security light curtains

Self-contained with relay outputs and compact with solid state outputs

90° mirror adaptors XUS-Z3●●

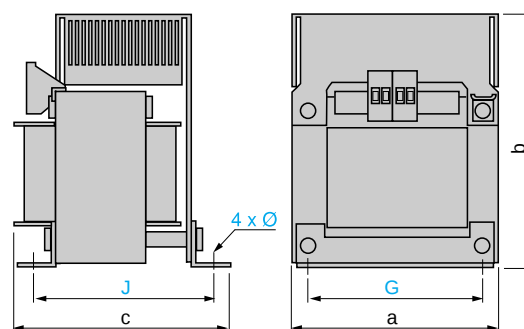
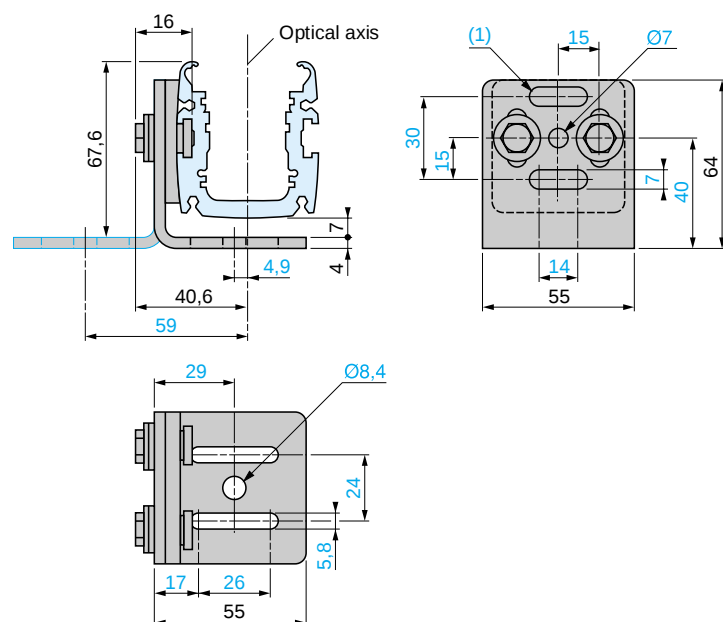


XUS-	b1	b2
Z302	298	272
Z304	501	475
Z306	704	678
Z308	909	883
Z310	1112	1086
Z312	1315	1289
Z314	1520	1494
Z316	1723	1697

(1) Fixing bracket

Brackets for side fixing XUS-LZ212

Power supplies ABL-6RF24●●G2



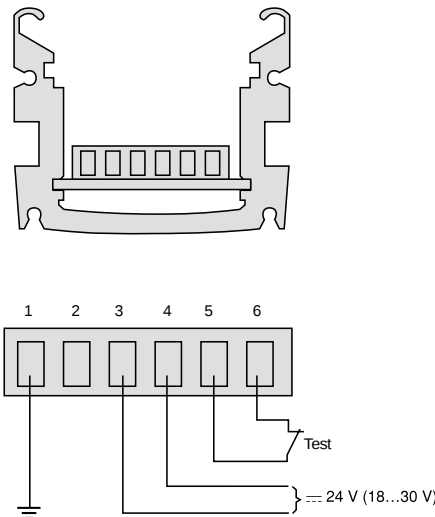
(1) 4 elongated holes Ø7 x 21

ABL-	a	b	c	G	J	Ø
6RF2401G2	78	120	72	56	47.5	4.8
6RF2402G2	84	122	87	64	65.5	4.8

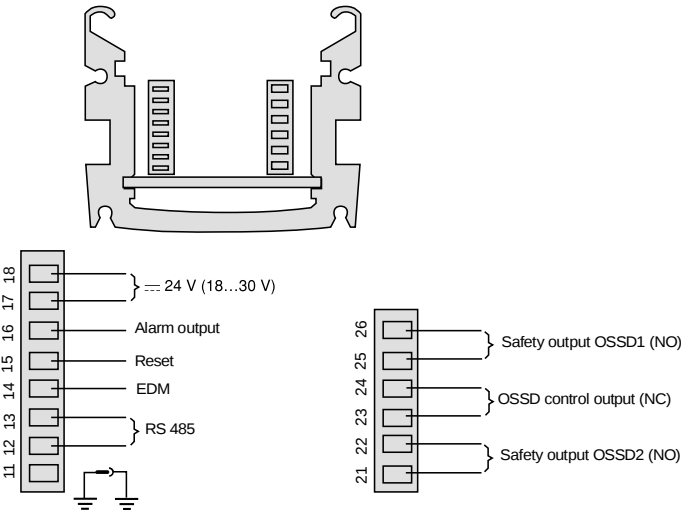
Components for safety applications

Type 4 security light curtains
Self-contained with relay outputs and compact with solid state outputs

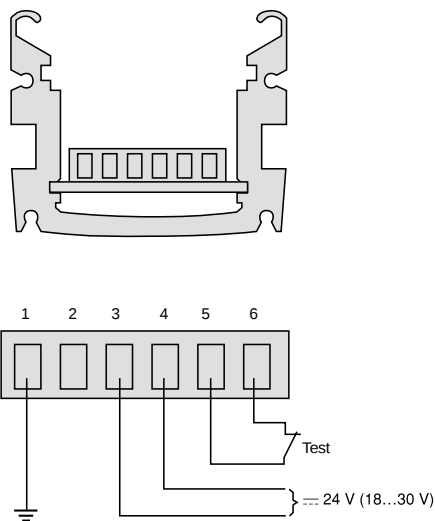
XUS-LA●●●●●● (relay outputs)
Transmitter



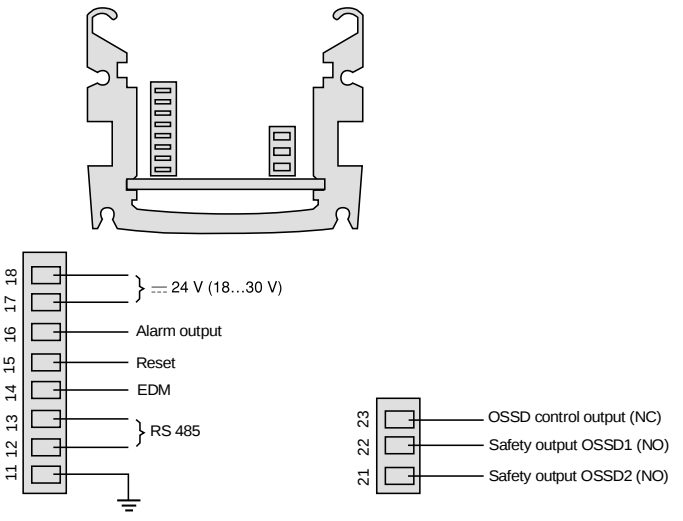
Receiver



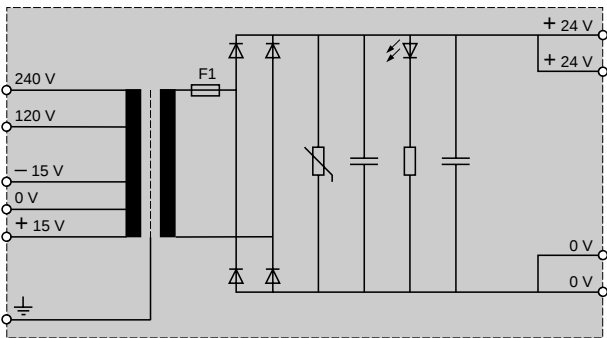
XUS-LC●●●●●● (solid state outputs)
Transmitter



Receiver



ABL-6RF24●●G2



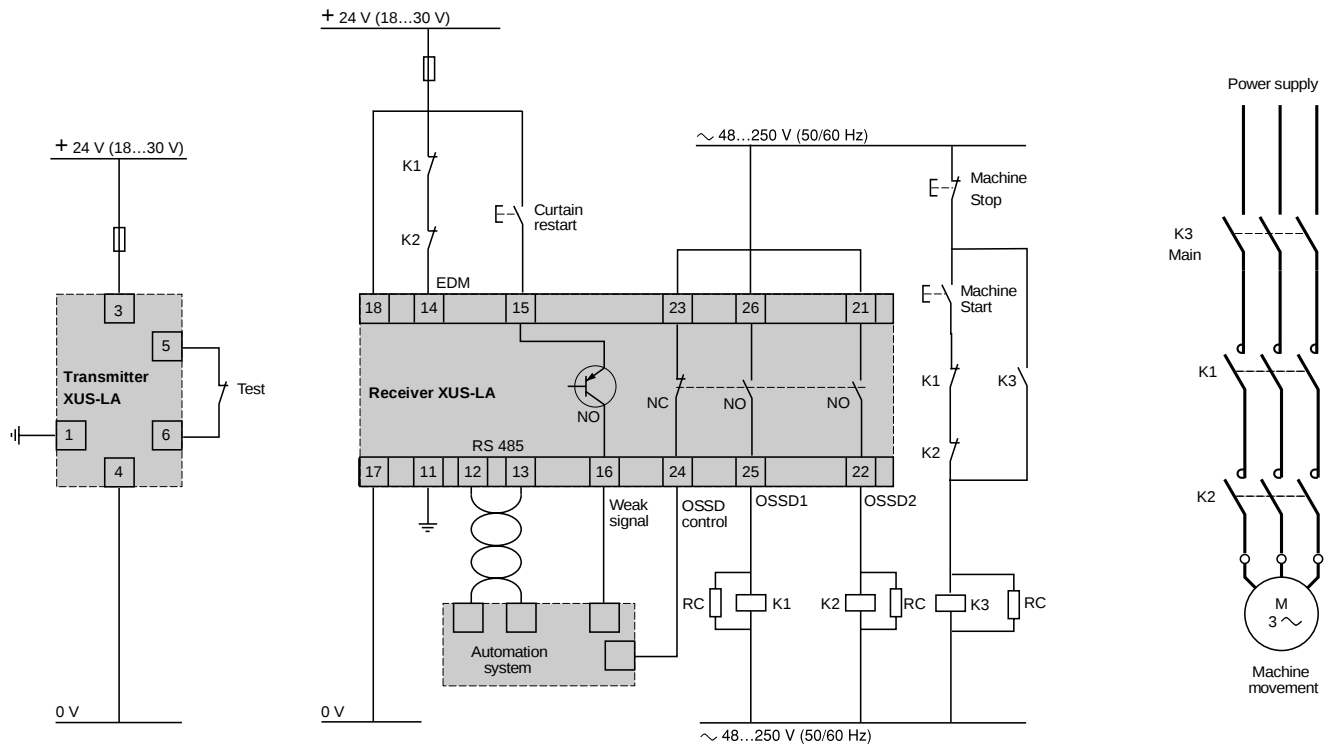
Components for safety applications

Type 4 security light curtains

Self-contained with relay outputs and compact with solid state outputs

XUS-LA●●●●● (relay outputs)

Example of operation with AUTO/MAN and EDM functions



XUS-LC●●●●● (solid state outputs)

Example of connection for operation in automatic mode

