

Safety detection solutions Preventa

Safety light curtains, type 4

Compact light curtains XUS LT with solid-state output

Light curtain type		XUS LTQ6●●●● (14 mm)	XUS LTR5●●●● (30 mm)	XUS LTY5●●●● (30 mm)
Environmental characteristics				
Conformity to standards			ANSI/RIAR15.06, ANSI B11:19-1990, OSHA 1910.217(C), OSHA 1910.212, EN/IEC 61496-1 and EN/IEC 61496-2 (Type 4)	
Certifications			CE, TUV, UL, CSA	
European directives			Machinery directive 98/37/EC, Work equipment directive 89/655/EEC and EMC directive 89/336 EEC	
Ambient air temperature	Operating	°C	0...+ 55	
	For storage	°C	- 25...+ 75	
Relative humidity			95% maximum, without condensation	
Degree of protection			IP 65	
Shock and vibration resistance		Conforming to IEC 61496-1	Shock resistance: 10 gn, impulse 16 ms, Vibration resistance: 10...55 Hz, amplitude: 0.35 ± 0.05 mm	
Materials			Casing: aluminium with electrostatically applied red (RAL 3000) polyester paint finish; end caps: 20% fibreglass impregnated polycarbonate.	
Fixings			End brackets (included)	
Optical characteristics				
Minimum detection capacity		mm	14 (finger)	30 (hand)
Nominal sensing distance (Sn)		m	0.3...7.5	0.3...90.3...20
Height protected		mm	260...1390	350...2095
Effective aperture angle (EAA)			2.5° at 3 m (3° when used with IP 67 protection tube)	
Light source			GaAlAs LED, 850 nm	
Immunity to ambient light			Conforming to IEC/EN 61496-2	
Electrical characteristics				
Response time		ms	20...40	20...35
Power supply			--- 24 V ± 20% 2 A conforming to EN/IEC 61496 and EN/IEC 60204-1	
	Transmitter	mA	285	
	Receiver	A	1.4 (with maximum load)	
Maximum current consumption (no-load)	Transmitter	mA	285	
	Receiver	mA	300	
Immunity to interference			Conforming to EN 61496-1	
Safety outputs OSSD (Output Signal Switching Devices)			2 solid-state PNP (N/O) outputs ≤ 500 mA, --- 24 V (Short-circuit protected)	
Alarm output			1 solid-state output 100 mA, --- 24 V, PNP or NPN depending on model	
Monitoring activation of output switching devices (MPCE/EDM)			50 mA, --- 24 V	
Signalling	Transmitter		1 LED (power supply)	
	Receiver		4 LEDs (stop, run, interlock, ECS/B Blanking or FB Floating Blanking)	
Connections (1)	Transmitter		M12, 5-pin, male connector on 0.25 m flying lead	
	Receiver		M12, 8-pin, male connector on 0.25 m flying lead	
Conductor c.s.a.	Transmitter	mm²	0.34. Tinned wires.	
	Receiver	mm²	Power supply and output signals: 0.5 (white, orange and yellow wires); 0.34 (grey, pink and violet wires). Tinned wires.	
Cable resistance	Transmitter	Ω	0.056 per metre for 0.34 mm² c.s.a. cable	
	Receiver	Ω	0.040 per metre for 0.5 mm² c.s.a. cable	
Cable lengths		m	Pre-wired connectors with screened (60% coverage) cable lengths of 5, 10, 15 and 30 m are available separately. The maximum cable length is 60 m, depending on the load current and power supply.	
Tightening torque			Receiver end cap assembly screw: 0.9 Nm	
Functions				
Functions			- Auto/Manual, manual 1st cycle, - Monitoring of external switching devices (EDM: External Devices Monitoring), - Test (MTS: Monitoring Test Signal), - Blanking (ECS/B), - Floating Blanking (FB), - Alignment aid by display of each light beam broken, - LED display of operating modes and alarm. Selection of Auto/Manual, blanking relay monitoring, floating/blanking and blanking + floating/blanking relay monitoring by configuration switches.	
Monitoring of external switching devices (EDM = External Devices Monitoring)			Monitoring of the function (open or closed) as well as the response time of the power components. Parameterable using configuration switches.	
“Test” function			Instigates the stop instruction of the light curtain by opening the contact (simulated intrusion)	
“Muting” function (inhibition)			Possible with external module XPS LMS1150, XPS LMR1152 and XPS LCM1150.	

(1) Pre-wired female connectors to be ordered separately, see page 30304/4.

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XUS LTQ6A●●●●●



XUS LTR/Y●●●●●●●

Transmitter-receiver pairs for finger protection (1)

Detection capacity 14 mm. Sensing distance 0.3 to 7.5 m.

■ 2 PNP safety outputs

Height protected mm	Response time ms	Number of light beams	Alarm output	Reference (2) (3)	Weight kg
260	20	24	PNP	XUS LTQ6A0260	4.000
350	20	32	PNP	XUS LTQ6A0350	4.270
435	20	40	PNP	XUS LTQ6A0435	4.530
520	25	48	PNP	XUS LTQ6A0520	4.800
610	25	56	PNP	XUS LTQ6A0610	5.060
700	25	64	PNP	XUS LTQ6A0700	5.330
785	30	72	PNP	XUS LTQ6A0785	5.600
870	30	80	PNP	XUS LTQ6A0870	5.860
955	35	88	PNP	XUS LTQ6A0955	6.720
1045	35	96	PNP	XUS LTQ6A1045	6.990
1130	35	104	PNP	XUS LTQ6A1130	7.250
1215	40	112	PNP	XUS LTQ6A1215	7.520
1305	40	120	PNP	XUS LTQ6A1305	7.780
1390	40	128	PNP	XUS LTQ6A1390	8.050

(1) Supplied with a test rod, 2 sets of 2 brackets with fixings and a user guide with certificate of conformity and 1 arc suppressor set.

Pre-wired female connectors to be ordered separately, see page 30304/5.

(2) To order a transmitter-receiver pair with an NPN alarm output, replace the letter **A** by the letter **B** in the reference.

Example: reference XUS LTQ6A0260 becomes XUS LTQ6B0260, with an NPN alarm output.

(3) To order a receiver only, add the letter **R** to the end of the reference for the corresponding transmitter-receiver pair.

Example: reference XUS LTQ6A0260 becomes XUS LTQ6A0260R for the receiver only.

To order a transmitter only, replace the letter **A** or **B** by **E** and add the letter **T** to the end of the reference for the corresponding transmitter-receiver pair.

Example: reference XUS LTQ6A0260 becomes XUS LTQ6E0260T for the transmitter only.

Transmitter-receiver pairs for hand protection (1)

Detection capacity 30 mm. Sensing distance 0.3 to 9 m.

■ 2 PNP safety outputs

Height protected mm	Response time ms	Number of light beams	Alarm output	Reference (2) (3)	Weight kg
350	20	16	PNP	XUS LTR5A0350	4.270
520	20	24	PNP	XUS LTR5A0520	4.800
700	20	32	PNP	XUS LTR5A0700	5.330
870	20	40	PNP	XUS LTR5A0870	5.860
1045	25	48	PNP	XUS LTR5A1045	6.990
1215	25	56	PNP	XUS LTR5A1215	7.520
1390	25	64	PNP	XUS LTR5A1390	8.050
1570	30	72	PNP	XUS LTR5A1570	8.580
1745	30	80	PNP	XUS LTR5A1745	9.110
1920	35	88	PNP	XUS LTR5A1920	9.640
2095	35	96	PNP	XUS LTR5A2095	10.160

Detection capacity 30 mm. Sensing distance 0.3 to 20 m.

■ 2 PNP safety outputs

To order a transmitter-receiver pair with a sensing distance 0.3 to 20 m, replace the letter **R** by **Y**.
Example: reference XUS LTR5A0350 becomes XUS LTY5A0350, with a sensing distance 0.3 to 20 m.

(1) Supplied with a test rod, 2 sets of 2 brackets with fixings and a user guide with certificate of conformity and 1 arc suppressor set.

Pre-wired female connectors to be ordered separately, see page 30304/5.

(2) To order a transmitter-receiver pair with an NPN alarm output, replace the letter **A** by the letter **B** in the reference.

Example: reference XUS LTR5A0350 becomes XUS LTR5B0350, with an NPN alarm output.

(3) To order a receiver only, add the letter **R** to the end of the reference for the corresponding transmitter-receiver pair.

Example: reference XUS LTR5A0350 becomes XUS LTR5A0350R for the receiver only.

To order a transmitter only, replace the letter **A** or **B** by **E** and add the letter **T** to the end of the reference for the corresponding transmitter-receiver pair.

Example: reference XUS LTR5A0350 becomes XUS LTR5E0350T for the transmitter only.

Other versions

Combining type 4 safety light curtains with external module for muting function.
See pages 30311/2 to 30311/7.

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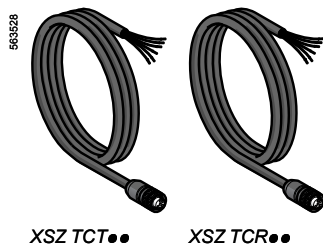
Separate components

Power supplies, 90° mirror adaptors, protective covers, anti-vibration kit, fixing bases

See pages 30308/2 to 30308/5

Accessories

Description	Usage	Length m	Reference	Weight kg
Fixings kit (2 brackets)	For light curtains XUS LT	–	XUS LZ213	0.100
Pre-wired female connectors	Transmitter type	5	XSZ TCT05	0.360
		10	XSZ TCT10	0.690
		15	XSZ TCT15	1.000
		30	XSZ TCT30	1.930
	Receiver type	5	XSZ TCR05	0.460
		10	XSZ TCR10	0.900
		15	XSZ TCR15	1.290
		30	XSZ TCR30	2.440
End cap with connector	Receiver type	–	XUS LZ222	0.010
Validation kit	For light curtains XUS LT	–	XUS LZ100	0.007
Arc suppressor (pair)	All types of light curtain	–	XUS LZ500	0.020
Protection tube (see page 30304/5)				
User guide on CD-ROM	All types of light curtain	–	XUS LZ450	0.010



IP 67 protection tubes for compact light curtains XUS LT			XUSLZ7●●●●
Environmental characteristics			
Air temperature	For operation	°C	0...+ 40
	For storage	°C	- 25...+ 70
Degree of protection			IP 67 conforming to IEC 60529
Material			Acrylic
Sensing distance (Sn) reduction coefficient			0.90
Environmental chemicals			
Chemical resistance	Aliphatic hydrocarbons		Resistant
	Alkalis		
	Aqueous solutions		
	Detergents and cleaners		
	Inorganic diluted acids		
	Chlorinated or aromatic hydrocarbons		Limited resistance
	Esters		
	Ketones		
Environmental resistance	Adverse weather, sunlight (UV)		Resistant
	Humidity		
	Immersion in water		

References of IP 67 protection tubes



XUSLZ7●●●●

Description	For use with	Height mm	Reference	Weight kg
IP 67 protection tubes for XUS LT●●●● transmitter-receiver pair (0.90 Sn) (1) (Sold in sets of 2)	XUSLT●●●●260	262.9	XUS LZ70260	2.700
	XUSLT●●●●350	350	XUS LZ70350	2.700
	XUSLT●●●●435	436	XUS LZ70435	2.700
	XUSLT●●●●520	523.8	XUS LZ70520	3.200
	XUSLT●●●●610	610.9	XUS LZ70610	3.200
	XUSLT●●●●700	697.7	XUS LZ70700	3.200
	XUSLT●●●●785	784.6	XUS LZ70785	3.200
	XUSLT●●●●870	871.1	XUS LZ70870	3.200
	XUSLT●●●●955	958.6	XUS LZ70955	3.200
	XUSLT●●●●1045	1045.5	XUS LZ71045	4.100
	XUSLT●●●●1130	1132	XUS LZ71130	4.100
	XUSLT●●●●1215	1219.5	XUS LZ71215	4.500
	XUSLT●●●●1305	1306.3	XUS LZ71305	4.500
	XUSLT●●●●1390	1393.4	XUS LZ71390	4.500
	XUSLT●●●●1570	1567.4	XUS LZ71570	6.800
	XUSLT●●●●1745	1741.4	XUS LZ71745	6.800
	XUSLT●●●●1920	1915.4	XUS LZ71920	6.800
	XUSLT●●●●2095	2089.7	XUS LZ72095	6.800

(1) Sensing distance reduction coefficient to be taken into account for each pair of IP 67 protection tubes used.