

TECHNICAL DATA

Power supply	12 ... 30 Vdc ¹
Ripple	≤ 2 Vpp
Consumption	≤ 25 mA
Output current	≤ 100 mA
Saturation voltage	≤ 2 V
Dielectric strength	500 Vac 1 min., between electronics and housing
Insulation resistance	>20 MΩ 500 Vdc, between electronics and housing
Mechanical protection	IP65, IP67, IP69K
Ambient light rejection	According to EN 60947-5-2
Vibrations	0.5 mm amplitude, 10 ... 55 Hz frequency, for each axis (EN60068-2-6)
Protection devices	A, B ²
Housing	Plastic version ABS TERLURAN Metal version INOX AISI 316L
Indicators	yellow OUTPUT LED green STABILITY LED, POWER LED (through beam emitter S15-xx-x-G0x)
Operating mode	selectable dark/light ³
Auxiliary functions	Test + and Test - Emitter off with Test+ on Vdc and Test- on 0 V
Connection	Cable vers. 2 m Ø 4 mm (PVC, 4 x 0,14 mm ²) Connector vers. M12 4-pole connector pig-tail vers. 150 mm cable + M12 4-pole connector
Lens material	plastic PMMA
Weight	40 g max mod. M12 55 g max mod. cable 35 g max mod. pig-tail
Operating temperature	-25 ... +55°C
Storage temperature	-25 ... +70°C
Reference directives	EN 60947-5-2, UL 508

TECHNICAL NOTE

¹Limit values

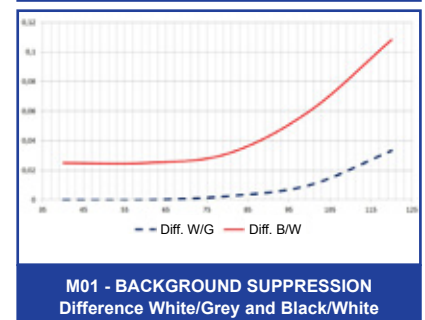
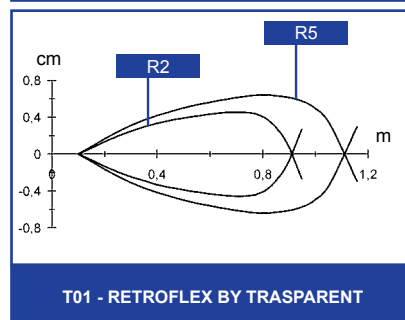
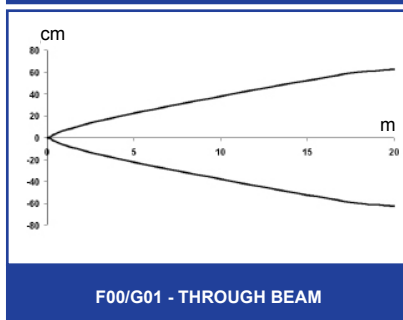
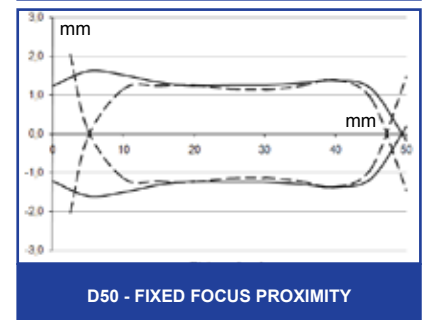
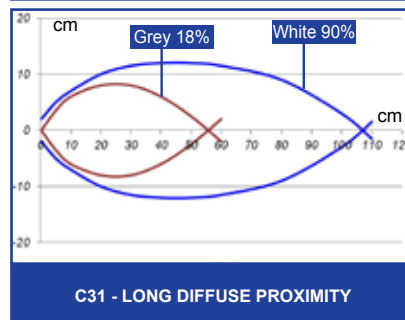
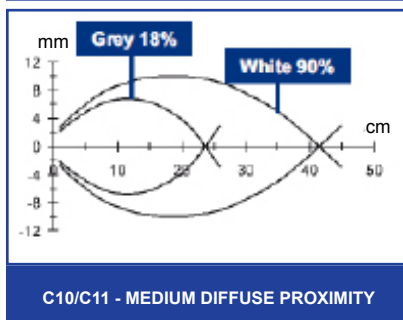
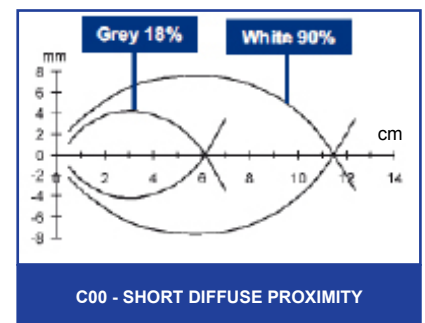
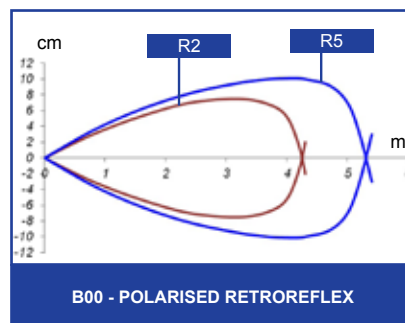
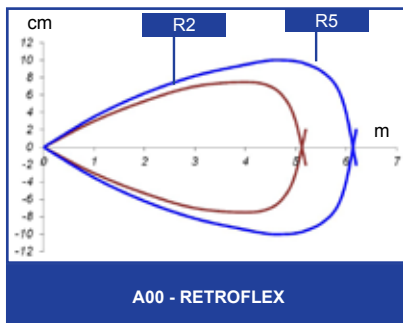
²A - reverse polarity protection

B - overload and short-circuit protection

³With L/D input not connected the proximity models function in the light mode and the retroreflex and through beam models in the dark mode; the light mode can be selected connecting the L/D input to +Vdc, the dark mode connecting it to 0Vdc.



DETECTION DIAGRAMS



S15 - PA (PLASTIC VERS.)

OPTIC FUNCTION	LIGHT EMISSION ¹	OPERATING DISTANCE	CONNECTION	SETTING	SWITCH FREQUENCY	RESPONSE TIME
non-polarised retroflex	infrared LED 880 nm	0,1...5 m on R2	connector M12	sensitivity trimmer	500 Hz	1 ms
			cable	fixed		
			pig-tail	fixed		
polarised retroflex	red LED 660 nm	0,1...4 m on R2	connector M12	sensitivity trimmer	500 Hz	1 ms
			cable	fixed		
			pig-tail	fixed		
diffuse proximity	infrared LED 880 nm	short: 1...10 cm	cable	fixed	500 Hz	1 ms
			pig tail	fixed		
		medium: 1...35 cm	connector M12	sensitivity trimmer		
			cable	fixed		
			pig-tail	fixed		
		long: 1...100 cm	connector M12	sensitivity trimmer		
fixed focus proximity	red LED 660 nm	1...5 cm	cable	fixed	1 KHz	500 µs
			pig-tail	fixed		
through beam receiver	n/a	0...20 m	connector M12	sensitivity trimmer	250 Hz	2 ms
			cable	fixed		
			pig-tail	fixed		
through beam emitter	infrared LED 880 nm	0...20 m	connector M12	light emission power trimmer	n/a	2 ms
			cable	fixed		
			pig-tail	fixed		
retro-reflex by transparent	red LED 660 nm	0,1...0,8 m on R2	connector M12	sensitivity trimmer	500 Hz	1 ms
background suppression	red LED 660 nm	40...120 mm	connector M12	sensitivity trimmer	500 Hz	1 ms

¹ Average life of 100.000 h with TA = +25 °C

S15 - NA (METAL VERS.)

OPTIC FUNCTION	LIGHT EMISSION ¹	OPERATING DISTANCE	CONNECTION	SETTING	SWITCH FREQUENCY	RESPONSE TIME
non-polarised retroflex	infrared LED 880 nm	0,1...5 m on R2	connector M12	sensitivity trimmer	500 Hz	1 ms
polarised retroflex	red LED 660 nm	0,1...4 m on R2	connector M12	sensitivity trimmer	500 Hz	1 ms
diffuse proximity	infrared LED 880 nm	medium: 1...35 cm	connector M12	sensitivity trimmer	500 Hz	1 ms
		long: 1...100 cm	connector M12	sensitivity trimmer	500 Hz	1 ms
through beam receiver	n/a	0...20 m	connector M12	sensitivity trimmer	250 Hz	2 ms
through beam emitter	infrared LED 880 nm	0...20 m	connector M12	light emission power trimmer	n/a	2 ms
retro-reflex by transparent	red LED 660 nm	0,1...0,8 m on R2	connector M12	sensitivity trimmer	500 Hz	1 ms
background suppression	red LED 660 nm	40...120 mm	connector M12	sensitivity trimmer	500 Hz	1 ms

¹ Average life of 100.000 h with TA = +25 °C