

SM-ALL


COMPLETE LINE OF
AMPLIFIED SUBMINIATURE
PHOTOELECTRIC SENSORS

- 15mm, 20mm, 30mm and 50mm fixed focus proximity
- 1,5m retroreflective and 1m polarized retroreflective
- 2m through beam models
- Amplified NPN or PNP output with NO-NC output

APPLICATIONS

- Processing and Packaging machinery
- Electronics assembling
- Beverage & Bottling
- Vending machines



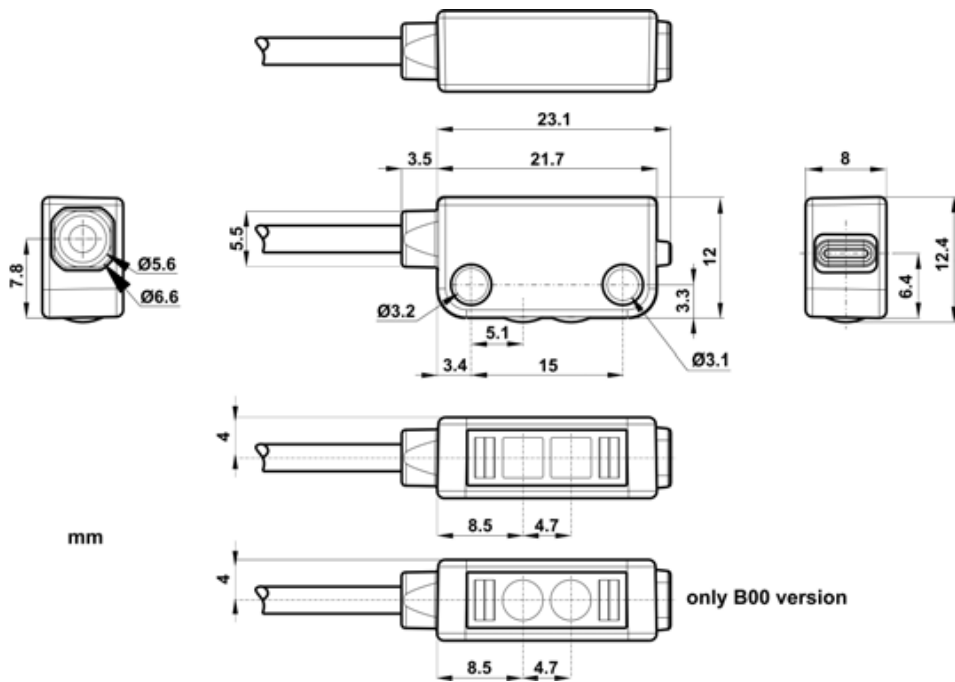
SM-ALL

Through beam		0...2 m
Retroreflective (on R2 reflector)		0,05...1,5 m
Polarized retroreflective		0,1...1 m
Fixed focus		3...15 mm
		3...20 mm
		3...30 mm
		3...50 mm
Power supply	Vdc	10...30 V
	Vac	
	Vac/dc	
Output	PNP	•
	NPN	•
	NPN/PNP	
	relay	
	other	
Connection	cable	•
	connector	
	pig-tail	
Approximate dimensions (mm)		8x23x12
Housing material		Polycarbonate
Mechanical protection		IP67

TECHNICAL DATA

Power supply	10 ... 30 Vdc (limit values)
Ripple	10% max.
Consumption (output current excluded)	20 mA max.
Light emission	red LED 640 nm
Operating mode	LIGHT mode on N.O. output/DARK mode on N.C. output
Indicators	yellow OUTPUT LED excl. mod. G00
Output	green POWER LED
Output current	PNP or NPN; NO; NC
Saturation voltage	50 mA max.
Response time	1,25 V max. (NPN), 1,45 V max. (PNP)
Switching frequency	850 µs
Connection	1,3 ms (mod. SM...F00/G00)
Dielectric strength	590 Hz
Insulating resistance	385 Hz (mod. SM...F00/G00)
Electrical protection	2 m cable Ø -2,5 mm
Mechanical protection	500 Vac, 1 min between electronics and housing
Ambient light rejection	>20 MΩ, 500 Vdc between electronics and housing
Vibrations	class 2
Shock resistance	IP67
Housing material	according to EN 60947-5-2
Lens material	0,5 mm amplitude, 10 ... 55 Hz frequency, for every axis (EN60068-2-6)
Operating temperature	11 ms (30 G) 6 shock for every axis (EN60068-2-27)
Storage temperature	Polycarbonate
Weight	PMMA, glass (mod. B00)
	-20 ... 55 °C
	-30 ... 75 °C
	22 g

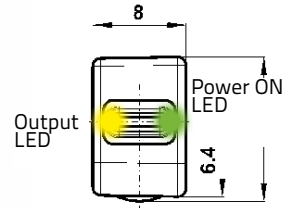
DIMENSIONS



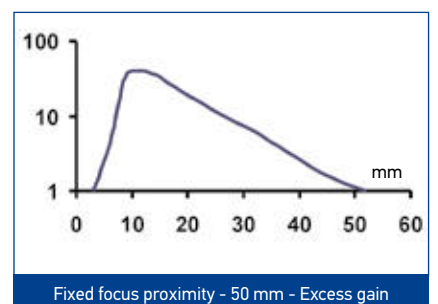
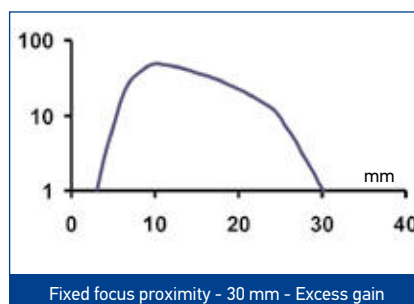
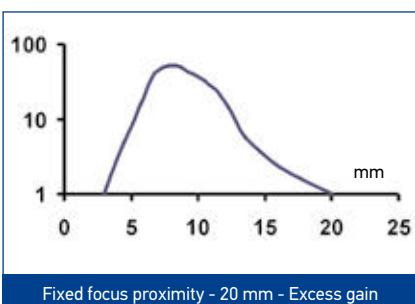
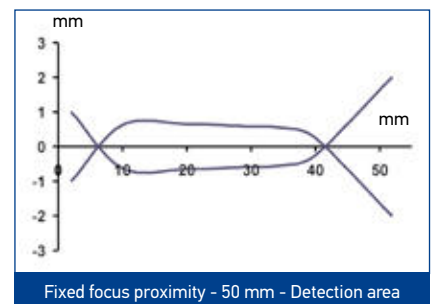
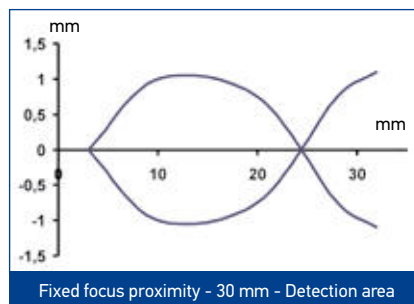
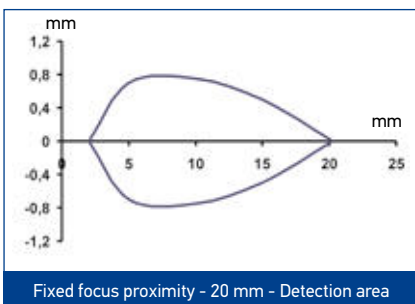
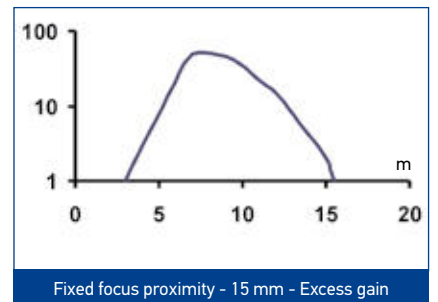
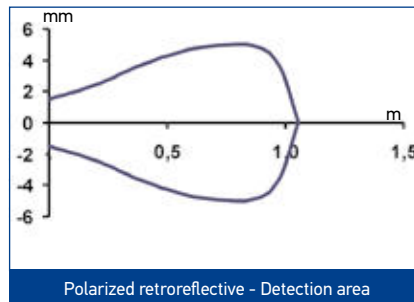
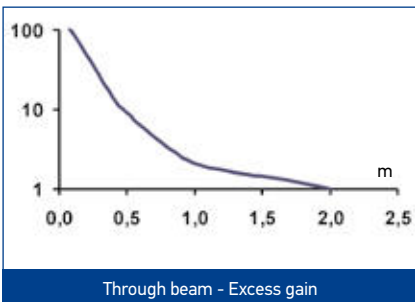
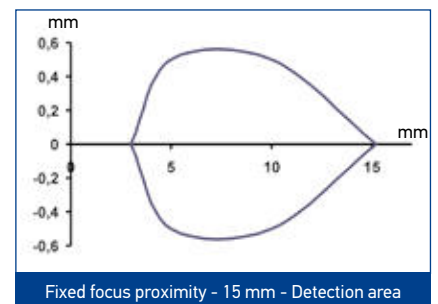
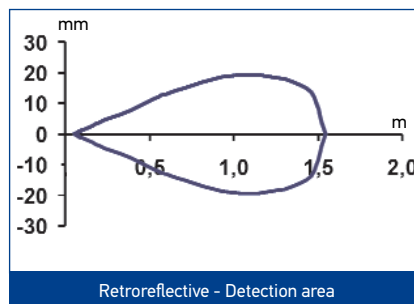
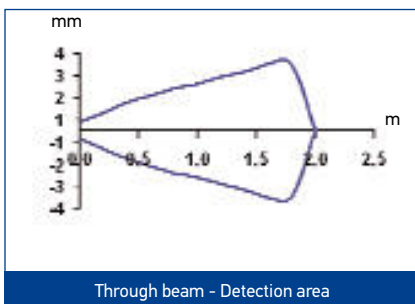
CABLE

Through beam emitter

BROWN	1	+	10 ... 30 Vdc	BROWN	1	+	10 ... 30 Vdc
WHITE	2		N.C. OUTPUT	BLUE	3	-	0 V
BLACK	4		N.O. OUTPUT				
BLUE	3	-	0 V				



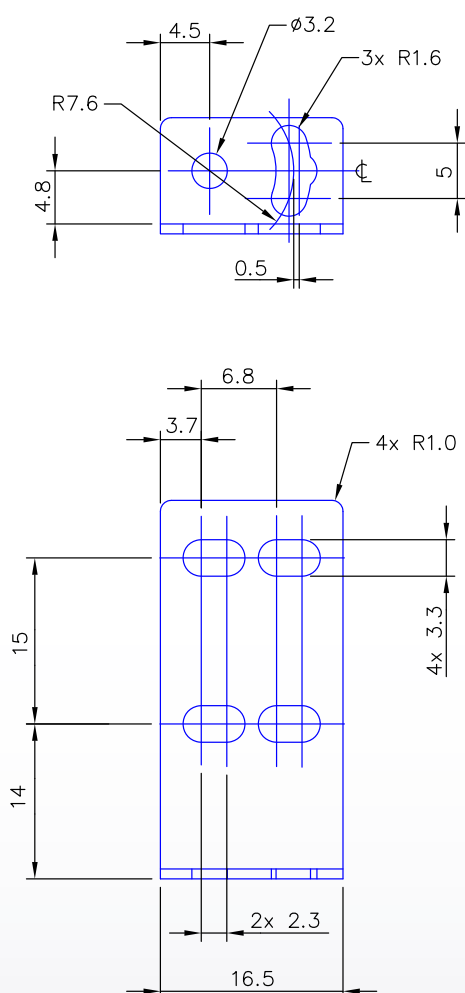
DETECTIONS DIAGRAMS



MODEL SELECTION AND ORDER INFORMATION

OPTIC FUNCTION	OPERATING DISTANCE	CONNECTION	OUTPUT	MODEL	ORDER NO.	
Retroreflective	0,05...1,5 m	2m Cable	PNP	SM-PR-2-A00-PP	95B000060	
			NPN	SM-PR-2-A00-NN	95B000070	
Polarized retroreflective	0,1...1 m	2m Cable	PNP	SM-PR-2-B00-PP	95B000080	
			NPN	SM-PR-2-B00-NN	95B000090	
Fixed focus (short distance)	15 mm	2m Cable	PNP	SM-PR-2-D00-PP	95B000020	
			NPN	SM-PR-2-D00-NN	95B000030	
Fixed focus (normal distance)	20 mm		PNP	SM-PR-2-D10-PP	95B000140	
			NPN	SM-PR-2-D10-NN	95B000150	
Fixed focus (medium distance)	30 mm		PNP	SM-PR-2-D20-PP	95B000040	
			NPN	SM-PR-2-D20-NN	95B000050	
Fixed focus (long distance)	50 mm		PNP	SM-PR-2-D30-PP	95B000000	
			NPN	SM-PR-2-D30-NN	95B000010	
Through beam receiver	0...2 m		2m Cable	PNP	SM-PR-2-F00-PP	95B000120
				NPN	SM-PR-2-F00-NN	95B000130
				-	SM-PR-2-G00-XG	95B000160

ACCESSORIES



MODEL	DESCRIPTION	ORDER NO.
ST-5049	right angle bracket	95ACC6650