

S5N



EXTENDED RANGE OF STANDARD “ONE FOR ALL” PHOTOELECTRIC TUBULAR M18 SENSORS

- All optic functions
- Improved EMI immunity
- Improved ambient light immunity
- Improved laser safety level
- M18 flat plastic with universal mounting
- Short plastic housing models
- Available in M18 metal housing
- Stainless steel housing models
- Axial or radial optics, cable or connector
- Standard 4-wire NO-NC NPN or PNP output
- M12 pigtail models available
- IO-Link connectivity V1.1 with double channel



APPLICATIONS

- Processing and Packaging machinery
- Conveyor lines, material handling
- Ceramics intralogistics
- Automated warehousing

(*) Stainless steel models. ATEX II 3DG

S5N		
Through beam		0...25 m (S5N-PP/NN; S5N-Px/Mx...PK/NK models) 0...20 m (S5N-SA/NA models) 0...60 m (class 1 LASER S5N...PP/NN models)
Retroreflective (on R2 reflector)		0,1...4 m (S5N-PP/NN; S5N-Px/Mx...PK/NK models)
Polarized retroreflective (on R2 reflector)		0,1...3m (S5N-Px/Mx...PK/NK models) 0,1...4 m (S5N...PP/NN; S5N-SA/NA models) 0,1...16 m (class 1 LASER S5N...PP/NN models)
Retroreflective for transparent (on R2 reflector)		0,1...0,8 m (S5N-SA/NA) 0,1...1,3 m (S5N...PP/NN models)
Diffuse proximity		short distance 0...100 mm (all models) medium distance 0...400 mm (S5N...PP/NN models) medium distance 0...350 (S5N-SA/NA models) medium distance 0...450 (S5N-Px/Mx...PK/NK models) long distance 0...700 ammm (S5N...PP/NN models) long distance Laser 0...350 mm (S5N...PP/NN models)
Fixed focus		50 mm (S5N-SA/NA models) 100 mm (S5N...PP/NN models)
Background suppression		40...120 mm (S5N-SA/NA models) 50...150 mm (S5N...PP/NN models)
Through beam with fiber optic		0...100 mm (S5N...PP/NN models)
Diffuse proximity with fiber optic		0...30 mm (S5N...PP/NN models)
Contrast sensor		10 ±2 mm (S5N...PP/NN models)
Luminescence sensor		0...20 mm (S5N...PP/NN models)
Power supply	Vdc	10...30 V
	Vac	
Output	Vac/dc	
	PNP	•
	NPN	•
	NPN/PNP	
	relay	
	other	IO-Link v 1.1
Connection	cable	•
	connector	•
	pig-tail	•
Approximate dimensions (mm)		M18 x (see mechanical drawings)
Housing material		PBT, Nickel plated Brass (S5N-PP/NN; S5N-Px/Mx...PK/NK models) ABS, AISI 316 L Stainless steel inox (S5N-SA/NA models)
Mechanical protection		IP67 (S5N-PP/NN; S5N-Px/Mx...PK/NK models) IP65 - IP67 - IP69K (S5N-SA/NA)

TECHNICAL DATA

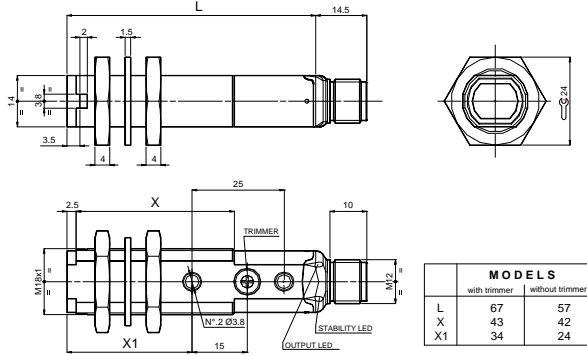
Power supply	10 ... 30 Vdc (limit values all models)
Ripple	2 Vpp max. (all models)
Consumption (output current excluded)	35 mA max. (all models)
Light emission	red LED 630 nm (mod. S5N...D00/E01, S5N-PA/MA...M03) red LED 660 nm (mod. S5N...B01...PP/NN/PK/NK; S5N...T01...PP/NN) - (mod. S5N-SA/NA...B/D/T/M) red LED 670 nm (mod. S5N-PS/MS...M03...PP/NN) IR LED 880 nm - (mod. S5N-Px/Mx...A00/C01/C10/C21/G00...PP/NN/PK/NK) - (mod. S5N-SA/NA...A/C/G) white LED 400-700 nm (mod. S5N...W03...PP/NN) UV LED 370 nm (mod. S5N...U03...PP/NN) red Laser 650 nm (mod. S5N-PH/PL...G00/B01/C01...PP/NN)
Setting	sensitivity trimmer 270° and without trimmer model (see mech drawings) 4 turns sensitivity trimmer (mod. S5N-Px/Mx...M01...PK/NK) teach-in push-button (mod. S5N...M03/W03/U03...PP/NN)
Operating mode	LIGHT mode on N.O. output / DARK mode on N.C. output (mod.S5N...C01/C10/C21/D00/M03/U03...PP/NN) DARK mode on N.O. output / LIGHT mode on N.C. output (mod.S5N...A00/B01/E01/F01/T01/W03...PP/NN) L/D input white wire or pin 2, if pin not connected on S5N-Px/Mx...PK/NK: LIGHT mode (mod. S5N-Px/Mx...C/D/M...PK/NK) DARK mode (mod. S5N-Px/Mx...A/B/T/F...PK/NK) white wire or pin 2 connected to: 0 V DARK mode, +Vcc LIGHT mode
Indicators	yellow OUTPUT LED (S5N, excl. mod. G00) green STABILITY LED (mod. S5N...B01/C01/C21/E01/F01/W03/U03), POWER LED (mod. S5N...G00) green/red READY/ERROR LED (mod. S5N...M03...PP/NN)
Output	PNP or NPN; NO; NC (mod. S5N...PP/NN) PNP or NPN (mod. S5N-Px/Mx...PK/NK) IO-Link v 1.1 (mod.S5N...OZ)
IO-Link interface	(mod.S5N...OZ) v 1.1, com 2, 38,4 kBaud, 32 bit process data, 5 ms cycle time LED emission model, 8 ms cycle time LASER emission model
Output current	100 mA max. (all models)
Saturation voltage	2 V max. (all models)
Response time	0,5 ms (mod. S5N...A00/B01/T01/C10/C21/C01/D00/E01/U03...PP/NN) - (mod. S5N-Px/Mx...D00...PK/NK) 2 ms (mod. S5N...F01/G00...PP/NN) - (mod. S5N-Px/Mx...F00...PK/NK) 1 ms (mod. S5N...M03...PP/NN) - (mod. S5N-Px/Mx...A/B/C/T/M...PK/NK) 100 µs (mod. S5N...W03...PP/NN) 333 µs (mod. S5N-PH/PL...PP/NN Laser emission models)
Switching frequency	1 kHz (mod. S5N...A00/B01/T01/C10/C21/C01/D00/E01/U03...PP/NN) - (mod. S5N-Px/Mx...D00...PK/NK) 250 Hz (mod. S5N...F01/G00...PP/NN) - (mod. S5N-Px/Mx...F00...PK/NK) 500 Hz (mod. S5N...M03...PP/NN) - (mod. S5N-Px/Mx...A/B/C/T/M...PK/NK) 100 µs (mod. S5N...W03...PP/NN) 333 µs (mod. S5N...PP/NN Laser emission models)
Connection	M12 4-pole connector, 2 m cable Ø 4 mm, 150 mm length Ø 4 mm cable with M12 4-pole connector
Dielectric strength	500 Vac, 1 min between electronics and housing
Insulating resistance	>20 MΩ, 500 Vdc between electronics and housing
Electrical protection	class 2
Mechanical protection	IP67 (S5N-PP/NN; S5N-Px/Mx...PK/NK models) IP65 - IP67 - IP69K (S5N-SA/NA)
Ambient light rejection	according to EN 60947-5-2
Vibrations	0,5 mm amplitude, 10 ... 55 Hz frequency, for every axis (EN60068-2-6)
Shock resistance	11 ms (30 G) 6 shock for every axis (EN60068-2-27)
Housing material	PBT, Nickel plated Brass (S5N-Px/Mx...PP/NN/PK/NK models) ABS, AISI 316 L Stainless steel inox (S5N-SA/NA models)
Lens material	PMMA (all models)
Operating temperature	-25 ... 55 °C (Laser mod.) -10 ... 50 °C
Storage temperature	-25 ... 70 °C
Weight	Plastic version 75 g max. cable vers. (90 g max. mod. M03), 25 g max. conn. vers. (40 g max. mod. M03) Metal version 110 g max. cable vers. (125 g max. mod. M03), 60 g max. conn. vers. (75 g max. mod. M03)

DIMENSIONS

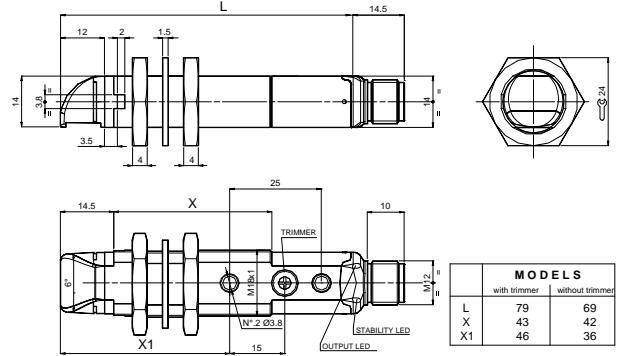
S5N...NN/PP MODELS

PLASTIC

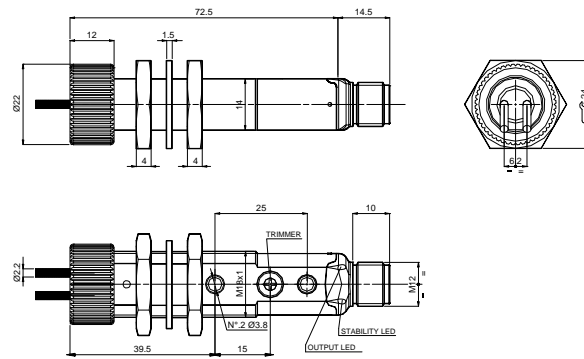
AXIAL VERSION



RADIAL VERSION

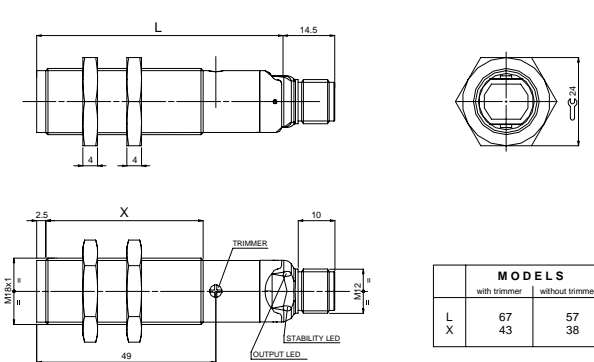


FIBRE OPTIC VERSION

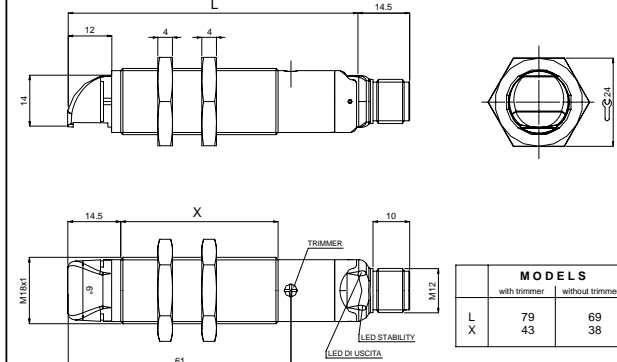


METAL

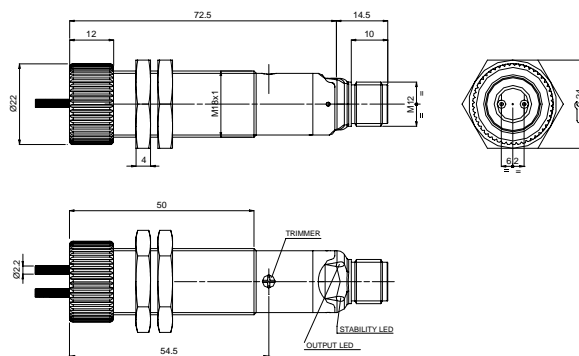
AXIAL VERSION



RADIAL VERSION

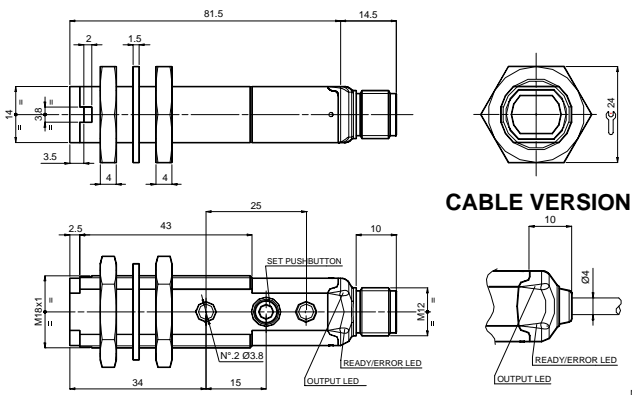


FIBRE OPTIC VERSION

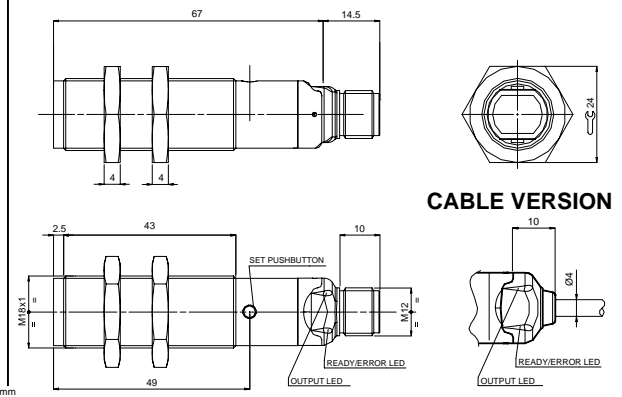


BACKGROUND SUPPRESSION AXIAL VERSION

PLASTIC

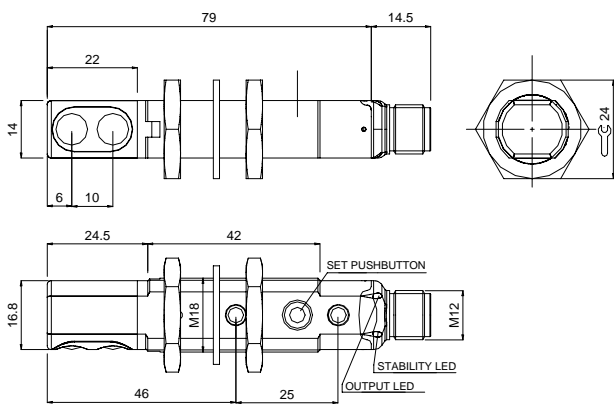


METAL

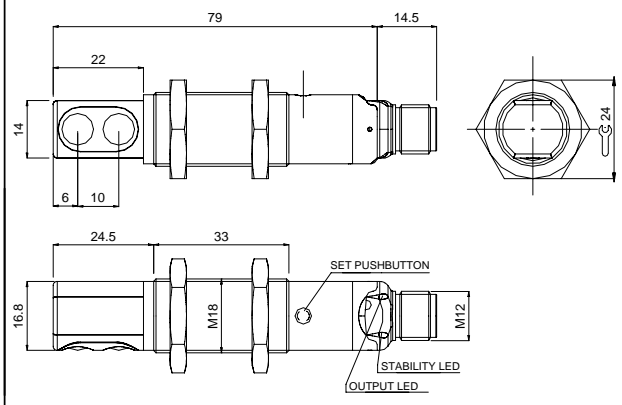


BACKGROUND SUPPRESSION RADIAL VERSION

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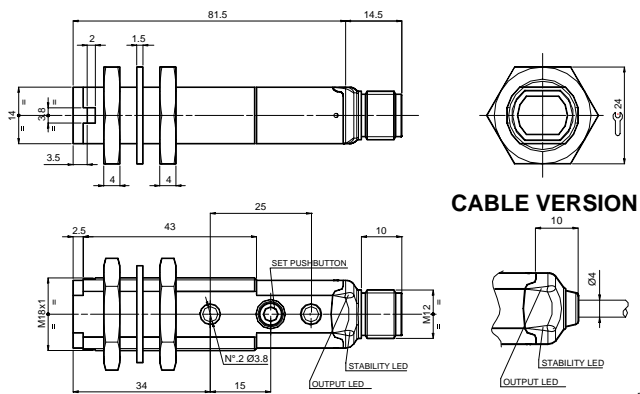


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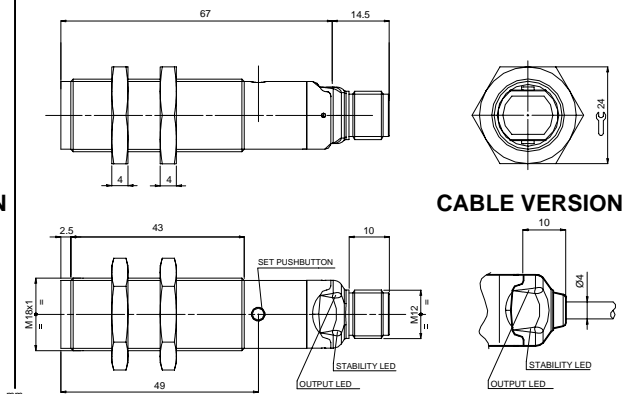


LUMINESCENCE AND CONTRAST

PLASTIC



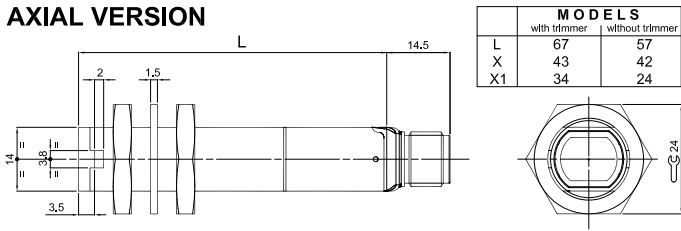
METAL



DIMENSIONS

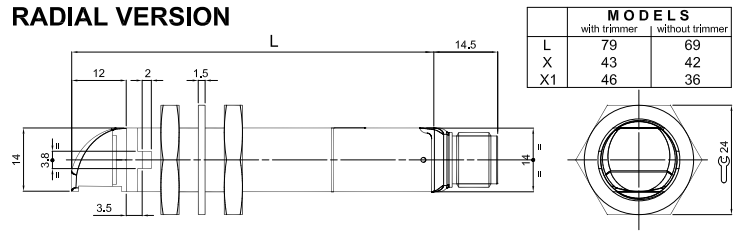
S5N-Px/Mx...PK/NK MODELS

AXIAL VERSION

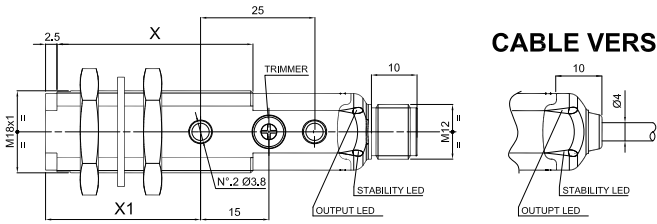


	MODELS	
	with trimmer	without trimmer
L	67	57
X	43	42
X1	34	24

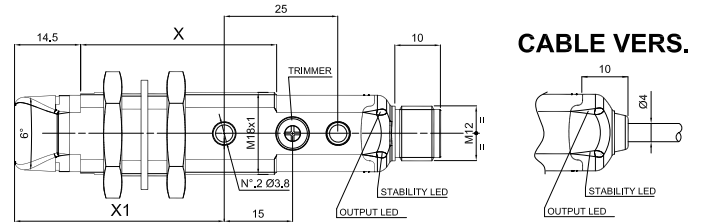
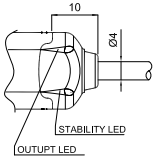
RADIAL VERSION



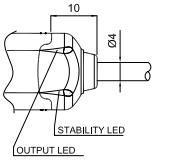
	MODELS	
	with trimmer	without trimmer
L	79	69
X	43	42
X1	46	36



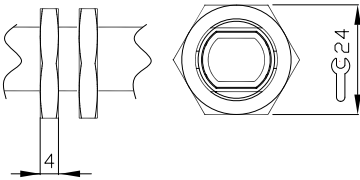
CABLE VERS



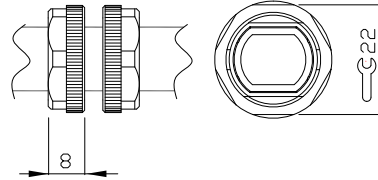
CABLE VERS.



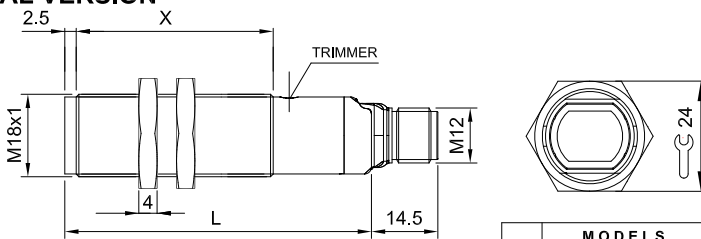
CH.24 PLASTIC NUTS



CH.22 PLASTIC NUTS

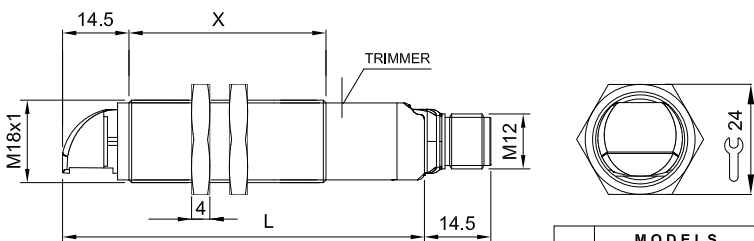


AXIAL VERSION



	MODELS	
	B01/C01/F00	A00/C10/G00
L	67	57
X	43	38

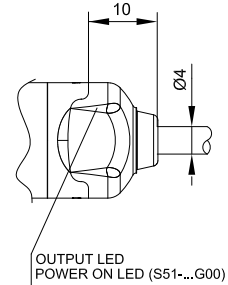
RADIAL VERSION



	MODELS	
	B01/C01/F00	A00/C10/G00
L	79	69
X	43	38

mm

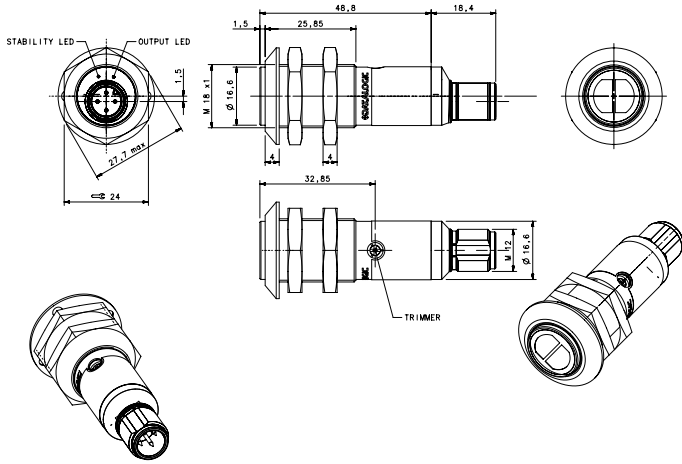
CABLE VERSION



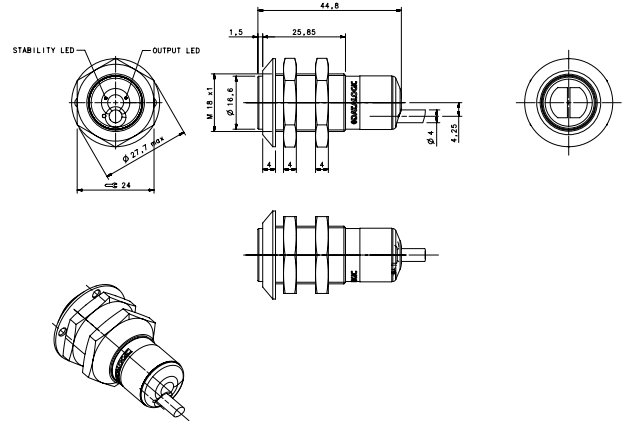
S5N-SA MODELS

PLASTIC

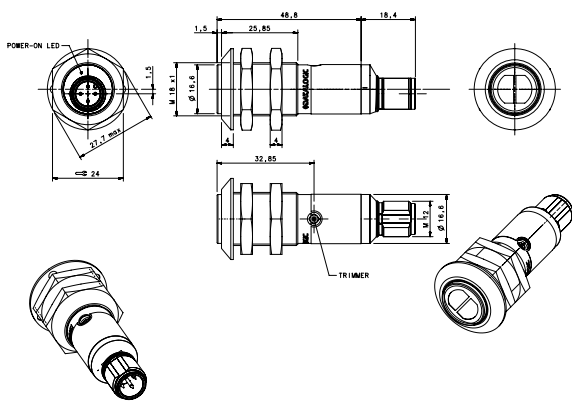
M12 connector version



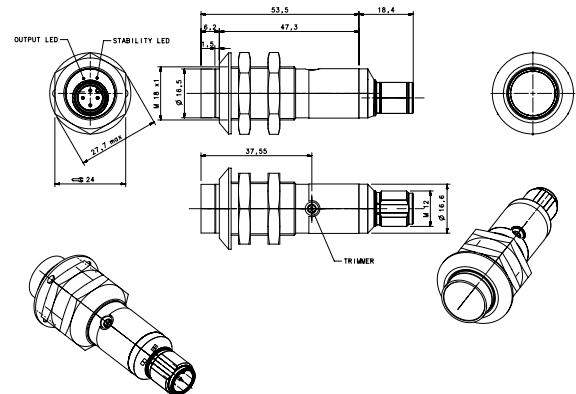
Cable version



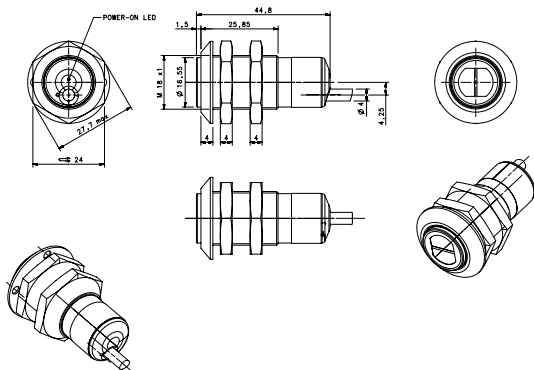
Through beam emitter - M12 connector version



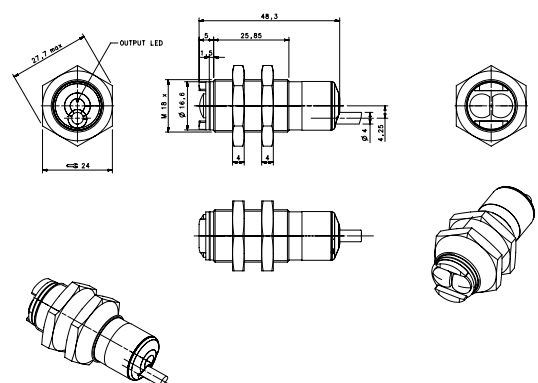
Background suppression - M12 connector version



Through beam emitter - cable version



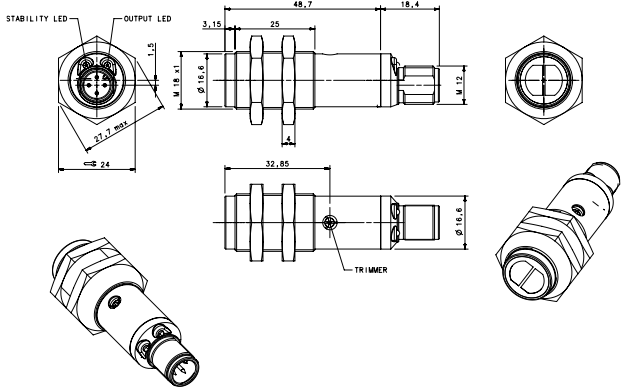
Diffuse proximity - cable version



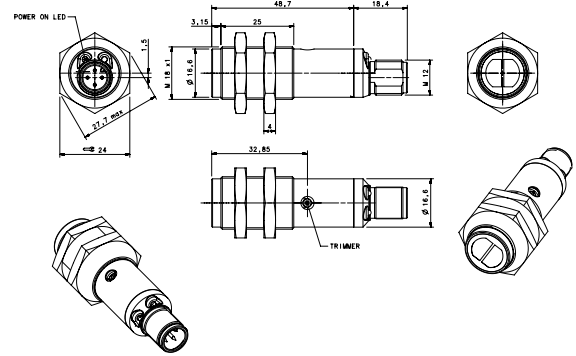
DIMENSIONS

S5N-NA MODELS STAINLESS STEEL

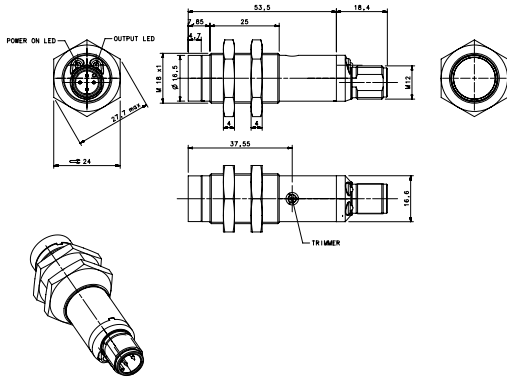
M12 connector version



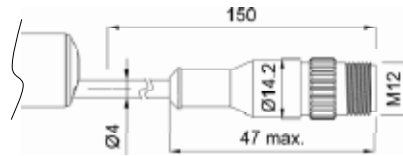
Through beam emitter - M12 connector version



Background suppression - M12 connector version



Pig-tail version

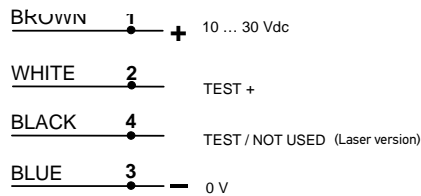
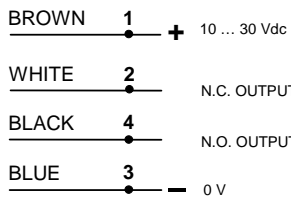


CONNECTIONS

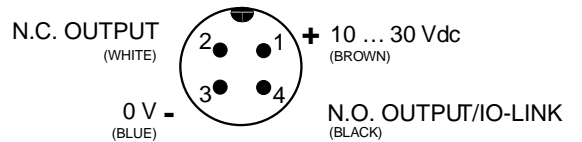
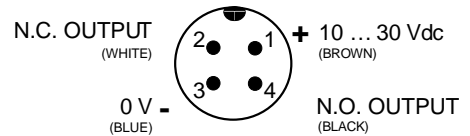
S5N...PP/NN MODELS

CABLE

Through beam emitter

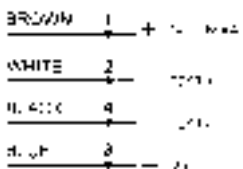


M12 CONNECTOR

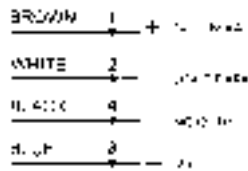


S5N-Px/Mx...PK/NK MODELS

G00 MODEL



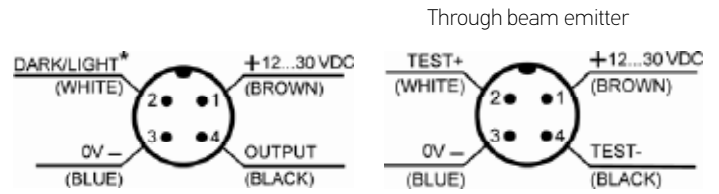
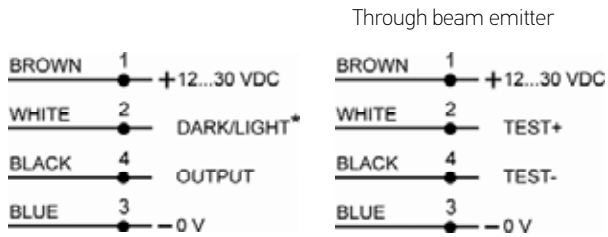
A00/B01/C01/C10/C20/F00 MODELS



S5N...NA/SA MODELS

Cable and Pig-tail

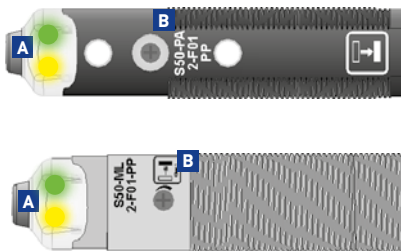
M12 connector



INDICATORS AND SETTINGS

S5N...PP/NN MODELS

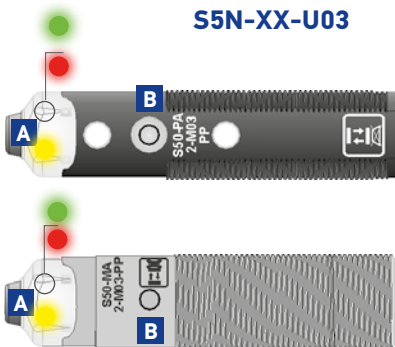
S5N-XX...A00/B01/C01/C21/E01/F01/T01



- A** OUTPUT status LED Yellow
STABILITY LED Green (Only Receiver)
POWER ON LED Green (Only Emitter)
- B** Adjustment trimmer (receiver)

Single-turn trimmer for sensitivity adjustment. Rotate in a clockwise direction to increase the operating distance.

S5N-XX-U03

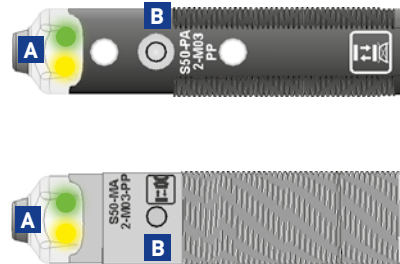


- A** OUTPUT status LED Yellow
READY LED Green
LED Red error
- B** Teach-in push-button

Teach-in button for setting.

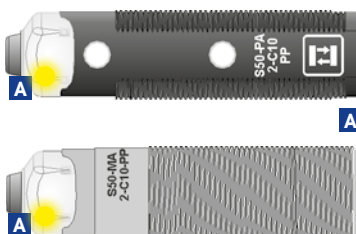
EASYtouch™ provides two setting modes: standard or fine, both obtained by pressing the push-button only once. Please refer to instructions manual for operating details.

S5N-XX-M03/W03



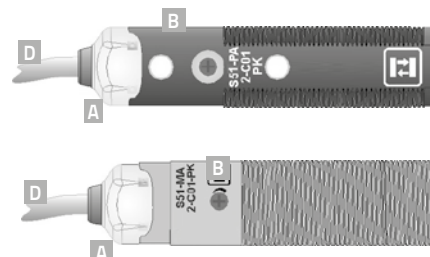
- A** OUTPUT status LED Yellow
READY LED Green
- B** Teach-in push-button

S5N-XX-A00/C10/D00



- A00/C10
- A** OUTPUT status LED Yellow
- G00
- OUTPUT status LED yellow (Only Emitter G00)

S5N-Px/Mx...PK/NK MODELS

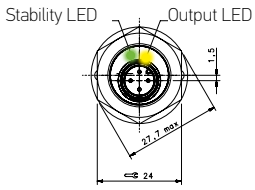


- A** OUTPUT status LED;
POWER ON LED on G00 model
- B** Adjustment trimmer (B01, C01 models)
- C** M12 connector
- D** Cable connection

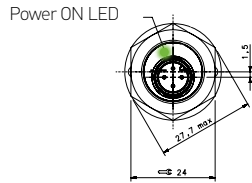
Trimmer for sensitivity adjustment. Rotate in a clockwise direction to increase the operating distance.

S5N...SA/NA MODELS

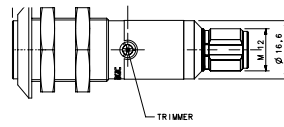
Plastic/metal case with trimmer, M12 connector



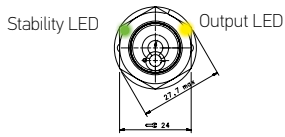
A01, B01, C11, C31, T01, F01, M01



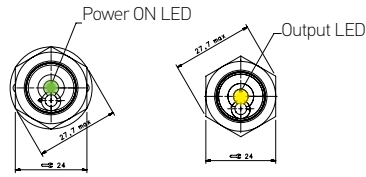
G01



Plastic, no trimmer, Cable, Pig Tail



A00, B00, C10, C00, T01, D50



G00

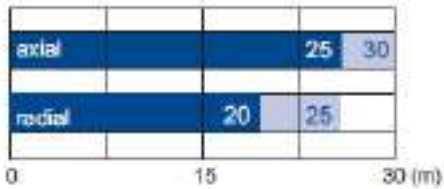
F00



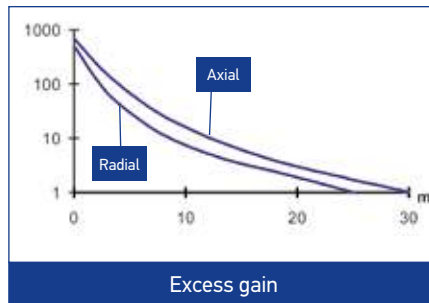
DETECTION DIAGRAMS

S5N...PP/NN MODELS

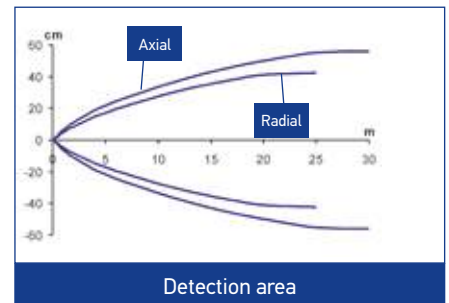
THROUGH BEAM (G/F) INFRARED EMISSION



■ Recommended operating distance
■ Maximum operating distance



Excess gain

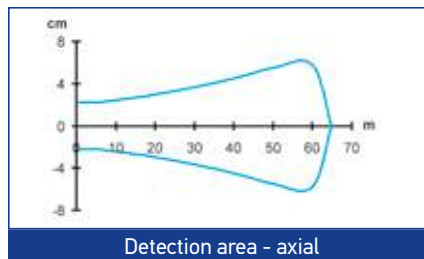


Detection area

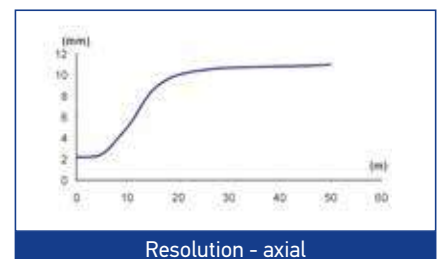
THROUGH BEAM (G/F) LASER RED EMISSION



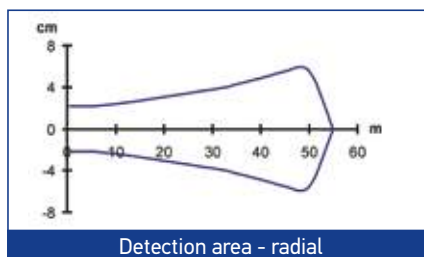
■ Operating distance



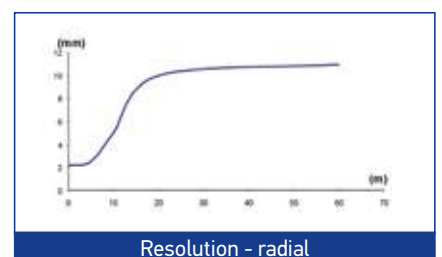
Detection area - axial



Resolution - axial



Detection area - radial

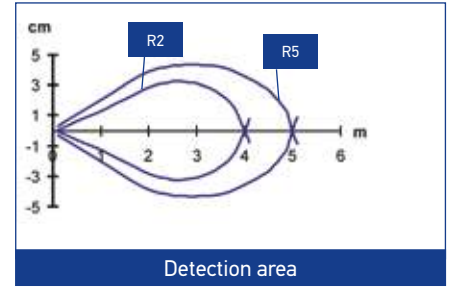
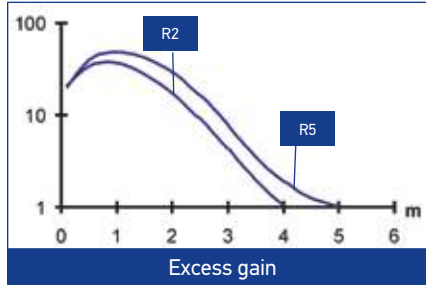


Resolution - radial

RETROREFLECTIVE (A) INFRARED EMISSION



Operating distance

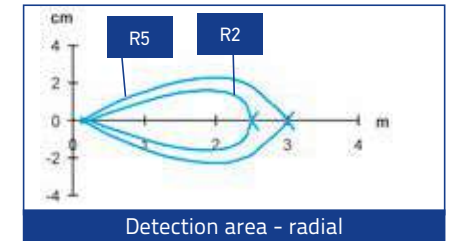
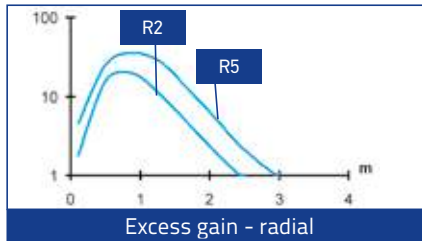
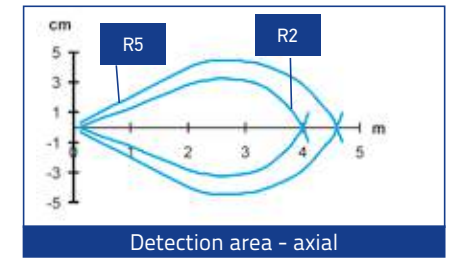
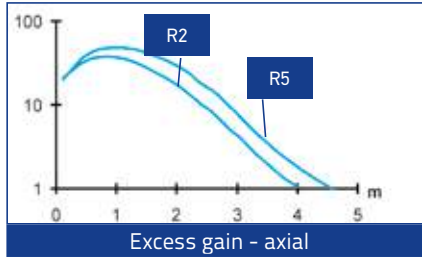


RETROREFLECTIVE POLARIZED (B) RED EMISSION

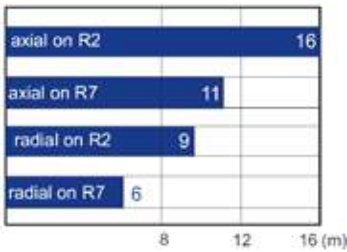


Recommended operating distance
Maximum operating distance

High efficiency reflectors can be used to obtain larger operating distances. Refer to **Reflectors** (A.01).

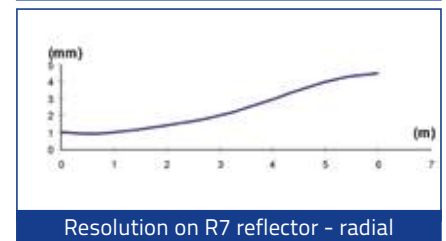
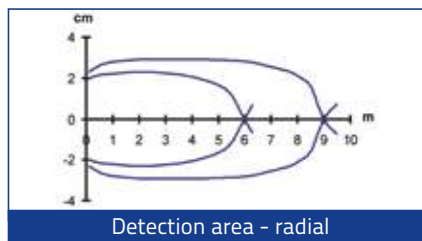
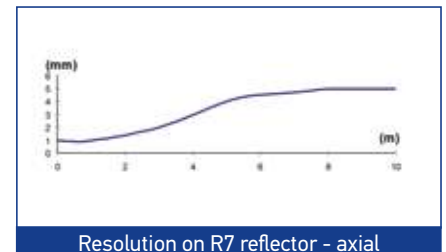
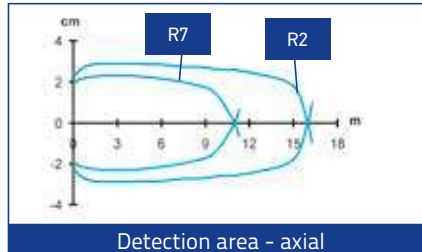


RETROREFLECTIVE POLARIZED (B) LASER RED EMISSION

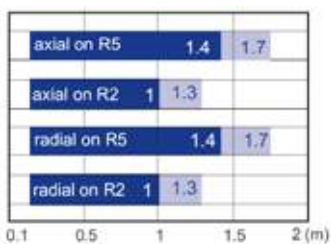


Operating distance

High efficiency reflectors can be used to obtain larger operating distances. Refer to **Reflectors** (A.01).

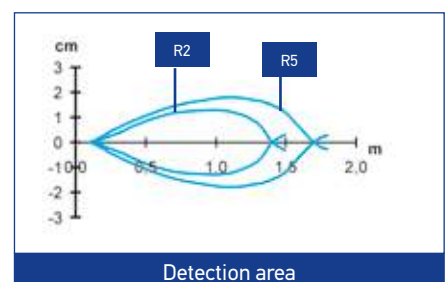
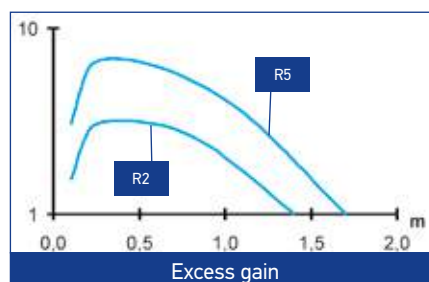


RETROREFLECTIVE TRANSPARENT (T) RED EMISSION

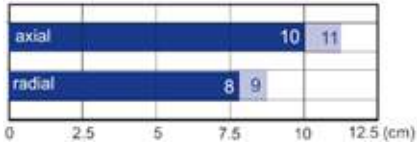


Recommended operating distance
Maximum operating distance

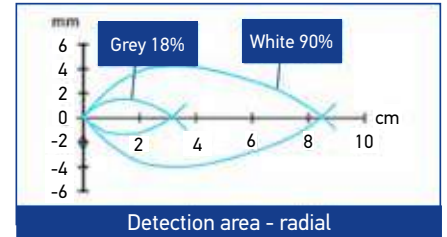
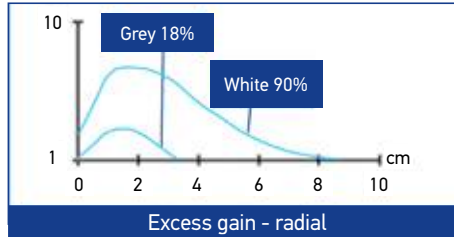
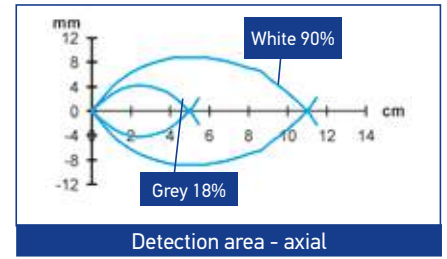
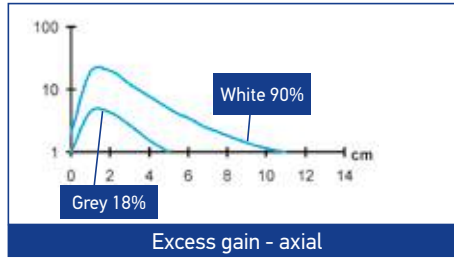
High efficiency reflectors can be used to obtain larger operating distances. Refer to **Reflectors**.



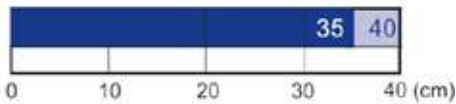
ENERGETIC DIFFUSED (C) SHORT INFRARED EMISSION



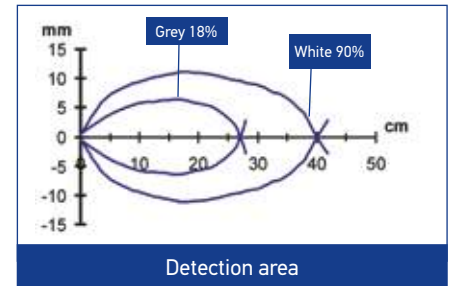
Recommended operating distance
 Maximum operating distance



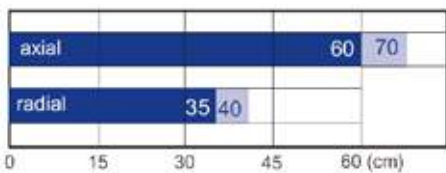
ENERGETIC DIFFUSED (C) MID INFRARED EMISSION



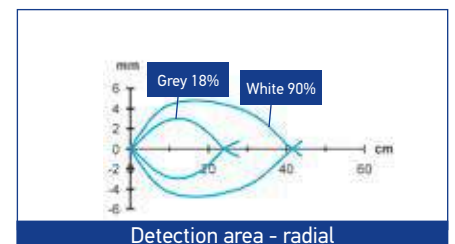
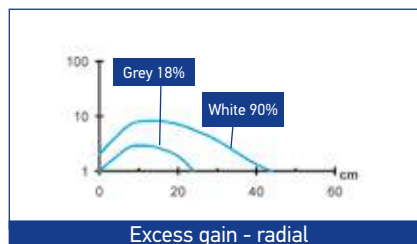
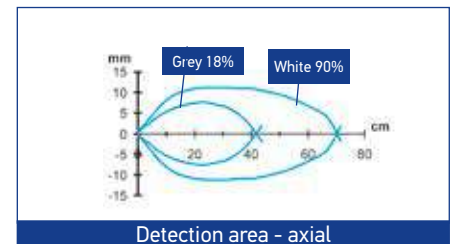
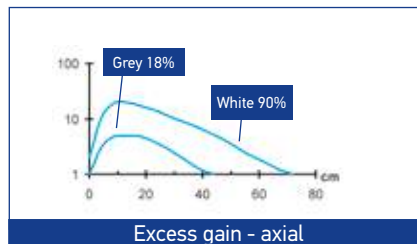
Recommended operating distance
 Maximum operating distance



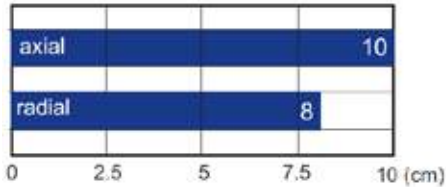
ENERGETIC DIFFUSED (C) LONG INFRARED EMISSION



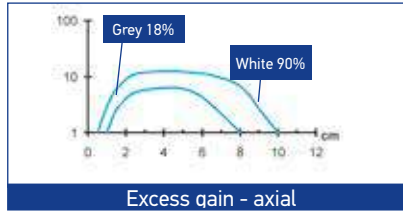
Recommended operating distance
 Maximum operating distance



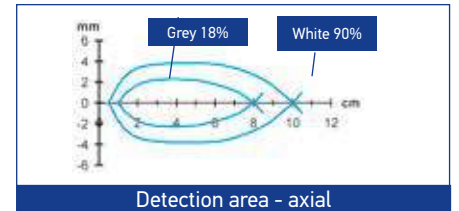
FIXED FOCUS (D) RED EMISSION



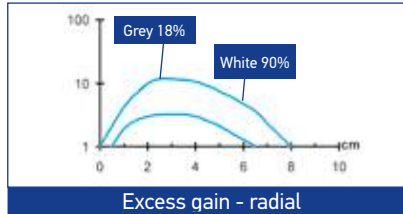
Operating distance



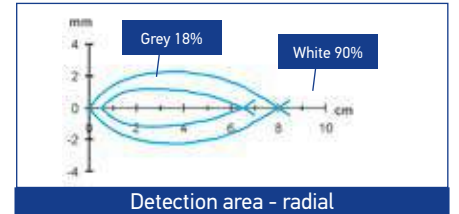
Excess gain - axial



Detection area - axial

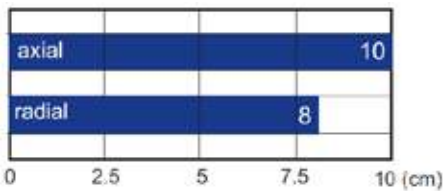


Excess gain - radial

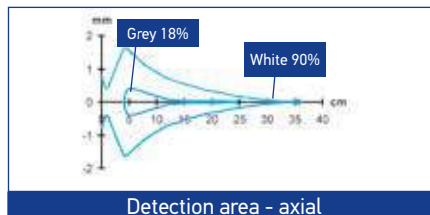


Detection area - radial

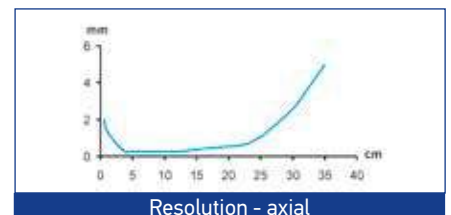
DIFFUSED (C) LASER RED EMISSION



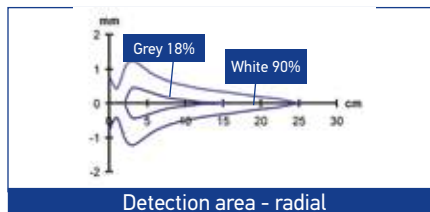
Operating distance



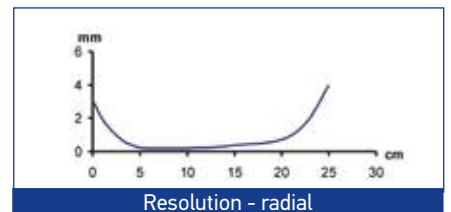
Detection area - axial



Resolution - axial

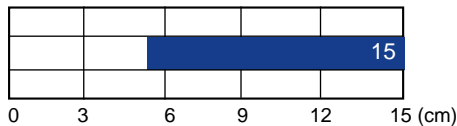


Detection area - radial

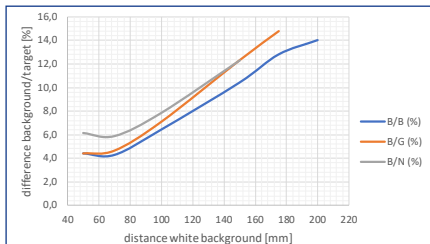


Resolution - radial

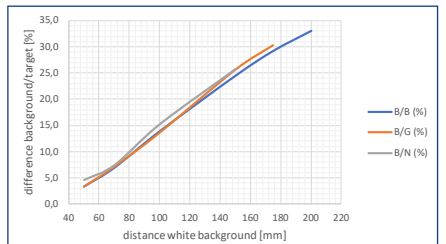
BACKGROUND SUPPRESSOR (M) AXIAL RED EMISSION



Operating distance

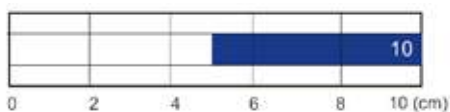


Detection difference with EASYtouch™ acquisition

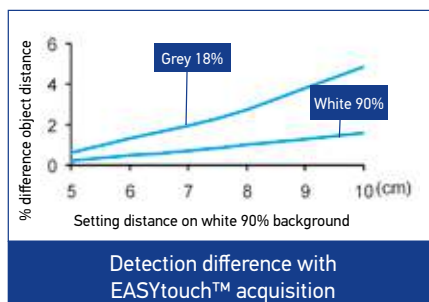


Detection difference with EASYtouch™ fine acquisition

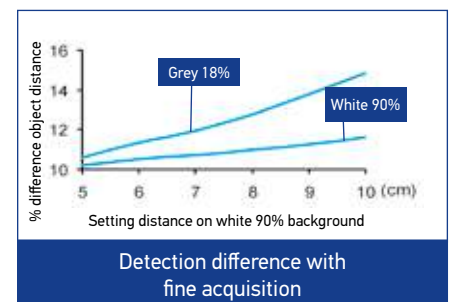
BACKGROUND SUPPRESSOR (M) RADIAL RED EMISSION



Operating distance

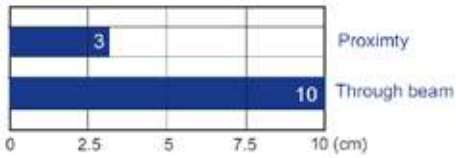


Detection difference with EASYtouch™ acquisition



Detection difference with fine acquisition

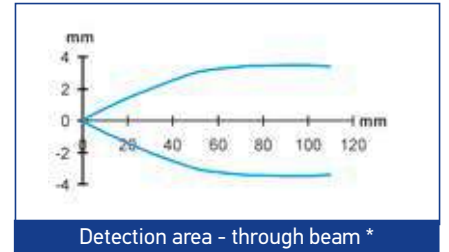
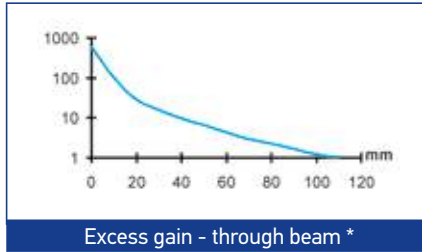
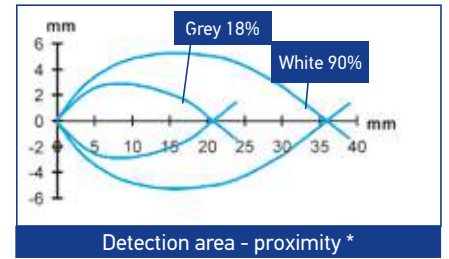
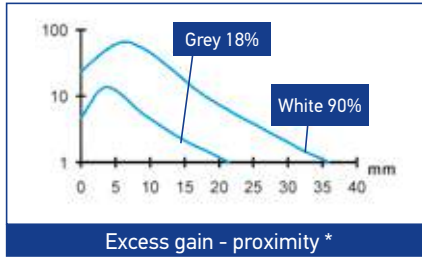
FIBER OPTIC (E) RED EMISSION



Operating distance with standard fibers

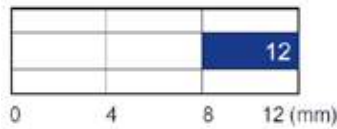
Standard Fiber-optics:
OF-42-ST-20 proximity
OF-43-ST-20 through beam

High efficiency fiber-optics or accessory lenses can be used to obtain larger operating distances.

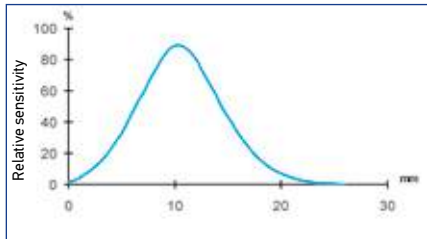


* standard Fiber-optics

MARK READER (W) WHITE EMISSION

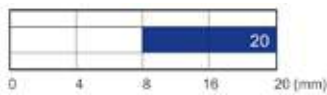


Operating distance

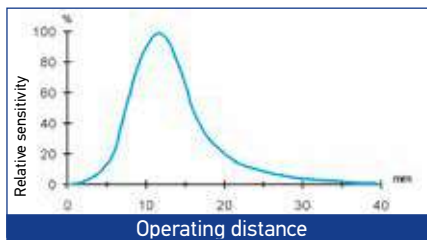


Operating distance

LUMINESCENCE (U) UV EMISSION

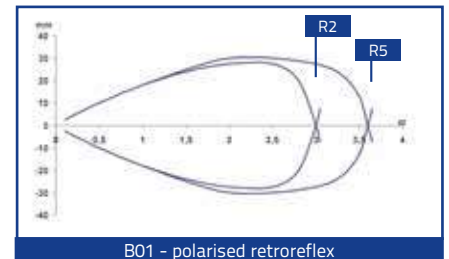
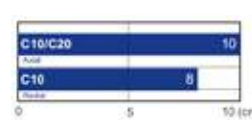
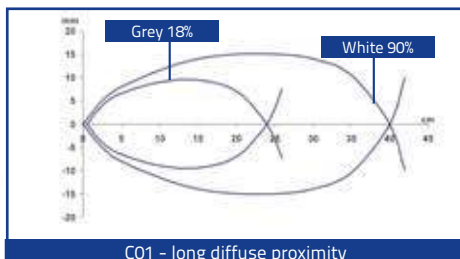


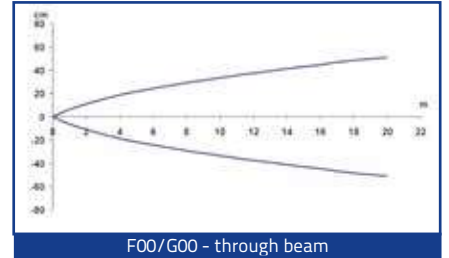
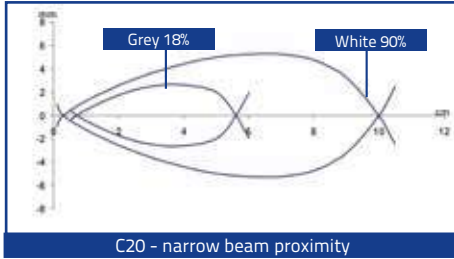
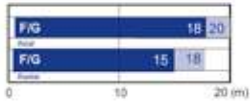
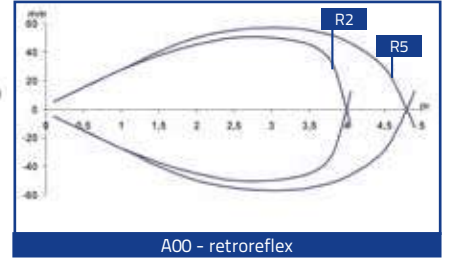
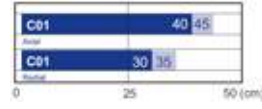
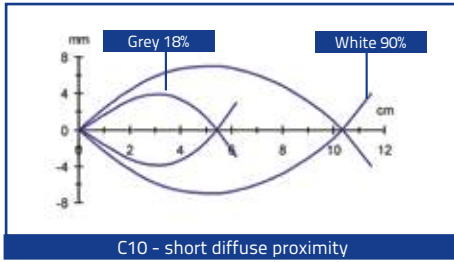
Operating distance



Operating distance

S5N...PK/NK MODELS

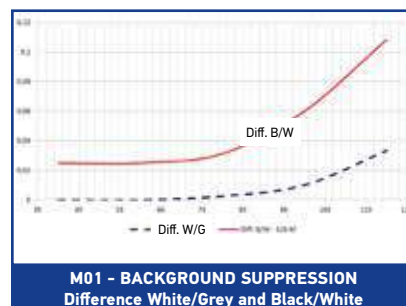
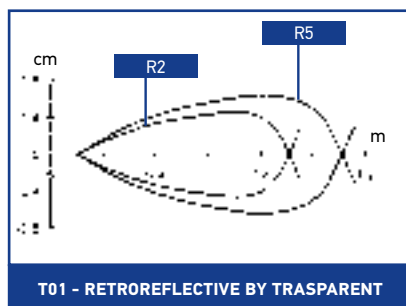
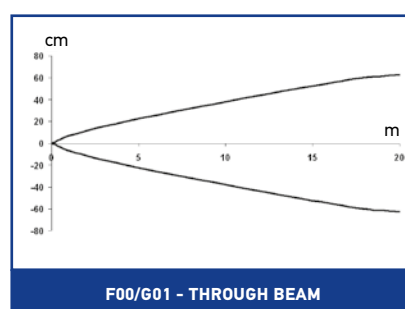
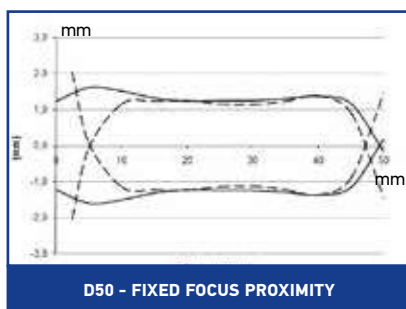
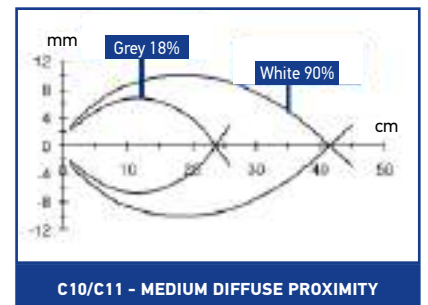
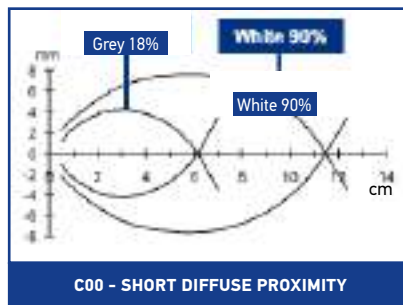
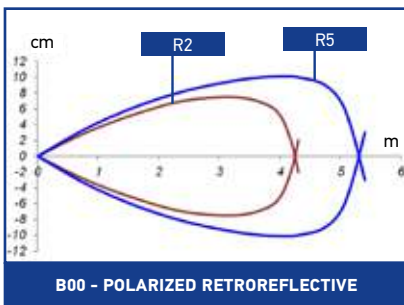








Recommended operating distance
Maximum operating distance

Note: the diagrams indicate the detection area typical of the axial optic versions; the maximum operating distance of the radial optic versions decreases as indicated in the tables given below




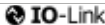
S5N-SA/NA MODELS



MODEL SELECTION AND ORDER INFORMATION

S5N - STANDARD PLASTIC HOUSING - NO/NC STANDARD OUTPUT & IO-LINK MODELS (S5N-PA...PP/NN/OZ)						
OPTIC FUNCTION	EMISSION	CONNECTION	OUTPUT	MODEL	ORDER NO.	
Retroreflective	LED, Axial optic	2m Cable	NPN	S5N-PA-2-A00-NN	952002091	
			PNP	S5N-PA-2-A00-PP	952002081	
		M12 Connector	NPN	S5N-PA-5-A00-NN	952002111	
			PNP	S5N-PA-5-A00-PP	952002101	
Polarized retroreflective	LED, Axial optic	2m Cable	NPN	S5N-PA-2-B01-NN	952001611	
			PNP	S5N-PA-2-B01-PP	952001011	
		M12 Connector	NPN	S5N-PA-5-B01-NN	952001501	
			PNP	S5N-PA-5-B01-PP	952001021	
	LED, Radial optic	2m Cable	 IO-Link	S5N-PA-5-B01-OZ	952002200	
			NPN	S5N-PR-2-B01-NN	952001781	
		M12 Connector	PNP	S5N-PR-2-B01-PP	952001031	
			NPN	S5N-PR-5-B01-NN	952001721	
	LASER, Axial optic	2m Cable	PNP	S5N-PR-5-B01-PP	952001041	
			NPN	S5N-PL-2-B01-NN	952001871	
		M12 Connector	PNP	S5N-PL-2-B01-PP	952001361	
			NPN	S5N-PL-5-B01-NN	952001841	
LASER, Radial optic	2m Cable	PNP	S5N-PL-5-B01-PP	952001371		
		 IO-Link	S5N-PL-5-B01-OZ	952002250		
	M12 Connector	NPN	S5N-PH-2-B01-NN	952001951		
		PNP	S5N-PH-2-B01-PP	952001941		
Long Diffuse proximity	LED, Axial optic	2m Cable	NPN	S5N-PA-2-C01-NN	952001621	
			PNP	S5N-PA-2-C01-PP	952001051	
		M12 Connector	NPN	S5N-PA-5-C01-NN	952001511	
			PNP	S5N-PA-5-C01-PP	952001061	
	LED, Radial optic	2m Cable	 IO-Link	S5N-PA-5-C01-OZ	952002210	
			NPN	S5N-PR-2-C01-NN	952001791	
		M12 Connector	PNP	S5N-PR-2-C01-PP	952001071	
			NPN	S5N-PR-5-C01-NN	952001731	
	LASER, Axial optic	2m Cable	PNP	S5N-PR-5-C01-PP	952001081	
			NPN	S5N-PL-2-C01-NN	952001881	
		M12 Connector	PNP	S5N-PL-2-C01-PP	952001381	
			NPN	S5N-PL-5-C01-NN	952001851	
LASER, Radial optic	2m Cable	PNP	S5N-PL-5-C01-PP	952001391		
		 IO-Link	S5N-PL-5-C01-OZ	952002260		
	M12 Connector	NPN	S5N-PH-2-C01-NN	952001991		
		PNP	S5N-PH-2-C01-PP	952001981		
Short Diffuse proximity	LED, Axial optic	2m Cable	NPN	S5N-PA-2-C10-NN	952001631	
			PNP	S5N-PA-2-C10-PP	952001241	
		M12 Connector	NPN	S5N-PA-5-C10-NN	952001521	
			PNP	S5N-PA-5-C10-PP	952001251	
	LED, Radial optic	2m Cable	NPN	S5N-PR-2-C10-NN	952001801	
			PNP	S5N-PR-2-C10-PP	952001491	
		M12 Connector	NPN	S5N-PR-5-C10-NN	952001741	
			PNP	S5N-PR-5-C10-PP	952001481	
	Medium Diffuse proximity	LED, Axial optic	2m Cable	NPN	S5N-PA-2-C21-NN	952002171
			PNP	S5N-PA-2-C21-PP	952002161	
			M12 Connector	NPN	S5N-PA-5-C21-NN	952002191
		LED, Radial optic	2m Cable	PNP	S5N-PA-5-C21-PP	952002181
2m Cable			NPN	S5N-PA-2-D00-NN	952001641	
M12 Connector			PNP	S5N-PA-2-D00-PP	952001091	
Fixed focus	LED, Axial optic	2m Cable	NPN	S5N-PA-5-D00-NN	952001531	
			PNP	S5N-PA-5-D00-PP	952001101	
		M12 Connector	NPN	S5N-PR-2-D00-NN	952001811	
	LED, Radial optic	2m Cable	PNP	S5N-PR-2-D00-PP	952001111	
			NPN	S5N-PR-5-D00-NN	952001751	
		M12 Connector	PNP	S5N-PR-5-D00-PP	952001121	
Fiber optic	LED, Axial optic	2m Cable	NPN	S5N-PA-2-E01-NN	952001651	
		M12 Connector	PNP	S5N-PA-2-E01-PP	952001131	
	LED, Axial optic	2m Cable	NPN	S5N-PA-5-E01-NN	952001541	
		M12 Connector	PNP	S5N-PA-5-E01-PP	952001141	
Through beam receiver	LED, Axial optic	2m Cable	NPN	S5N-PA-2-F01-NN	952001661	
			PNP	S5N-PA-2-F01-PP	952001151	
	LED, Axial optic	M12 Connector	NPN	S5N-PA-5-F01-NN	952001551	
			PNP	S5N-PA-5-F01-PP	952001161	
Through beam receiver	LED, Radial optic	2m Cable	NPN	S5N-PR-2-F01-NN	952001821	
			PNP	S5N-PR-2-F01-PP	952001171	
		M12 Connector	NPN	S5N-PR-5-F01-NN	952001761	
			PNP	S5N-PR-5-F01-PP	952001181	
	LASER, Axial optic	2m Cable	NPN	S5N-PL-2-F01-NN	952001891	
			PNP	S5N-PL-2-F01-PP	952001401	
		M12 Connector	NPN	S5N-PL-5-F01-NN	952001861	
			PNP	S5N-PL-5-F01-PP	952001411	
	LASER, Radial optic	2m Cable	NPN	S5N-PH-2-F01-NN	952002031	
			PNP	S5N-PH-2-F01-PP	952002021	
		M12 Connector	NPN	S5N-PH-5-F01-NN	952002051	
			PNP	S5N-PH-5-F01-PP	952002041	
Through beam emitter	LED, Axial optic	2m Cable	-	S5N-PA-2-G00-XG	952001191	
		M12 Connector	-	S5N-PA-5-G00-XG	952001201	
	LED, Radial optic	2m Cable	-	S5N-PR-2-G00-XG	952001211	
		M12 Connector	-	S5N-PR-5-G00-XG	952001221	
	LASER, Axial optic	2m Cable	-	S5N-PL-2-G00-XG	952001421	
		M12 Connector	-	S5N-PL-5-G00-XG	952001431	
	LASER, Radial optic	2m Cable	-	S5N-PH-2-G00-XG	952002061	
		M12 Connector	-	S5N-PH-5-G00-XG	952002071	

S5N - STANDARD PLASTIC HOUSING - NO/NC STANDARD OUTPUT & IO-LINK MODELS (S5N-PA...PP/NN/OZ)

Background suppression	LED, Axial optic	2m Cable	NPN	S5N-PA-2-M03-NN	952001671
			PNP	S5N-PA-2-M03-PP	952001231
	M12 Connector		NPN	S5N-PA-5-M03-NN	952001561
			PNP	S5N-PA-5-M03-PP	952001001
Retroreflective for transparent	LED, Radial optic	M12 Connector	 IO-Link	S5N-PA-5-M03-OZ	952002230
				S5N-PS-5-M03-PP	952001931
	2m Cable		NPN	S5N-PS-5-M03-NN	952001921
			PNP	S5N-PS-2-M03-PP	952001911
Contrast	LED, Axial optic	M12 Connector		S5N-PS-2-M03-NN	952001901
			 IO-Link	S5N-PA-2-T01-NN	952001691
	LED, Radial optic	2m Cable		S5N-PA-2-T01-PP	952001261
				NPN	S5N-PA-5-T01-NN
Luminescence	LED, Radial optic	M12 Connector		S5N-PA-5-T01-PP	952001271
			 IO-Link	S5N-PA-5-T01-OZ	952002220
	2m Cable		NPN	S5N-PR-2-T01-NN	952001831
			PNP	S5N-PR-2-T01-PP	952001281
Retroreflective	LED, Radial optic	M12 Connector		S5N-PR-5-T01-NN	952001771
				PNP	S5N-PR-5-T01-PP
	2m Cable		NPN	S5N-PA-2-U03-NN	952001701
			PNP	S5N-PA-2-U03-PP	952001301
Contrast	LED, Axial optic	M12 Connector		S5N-PA-5-U03-NN	952001591
				PNP	S5N-PA-5-U03-PP
	2m Cable		NPN	S5N-PA-2-W03-NN	952001711
			PNP	S5N-PA-2-W03-PP	952001321
Contrast	LED, Axial optic	M12 Connector		S5N-PA-5-W03-NN	952001601
				PNP	S5N-PA-5-W03-PP
	2m Cable		NPN	S5N-PA-5-W03-OZ	952002240
			 IO-Link		

S5N - STANDARD PLASTIC HOUSING - L/D INPUT MODELS (S5N-PA...PK/NK)

Retroreflective	LED, Axial optic	2m Cable	NPN	S5N-PA-2-A00-NK	952701072
			PNP	S5N-PA-2-A00-PK	952701002
	M12 Connector		NPN	S5N-PA-5-A00-NK	952701332
			PNP	S5N-PA-5-A00-PK	952701262
Polarized retroreflective	LED, Radial optic	2m Cable	NPN	S5N-PR-2-A00-NK	952701202
			PNP	S5N-PR-2-A00-PK	952701132
	M12 Connector		PNP	S5N-PR-5-A00-PK	952701392
		LED, Axial optic	2m Cable	NPN	S5N-PA-2-B01-NK
	PNP		S5N-PA-2-B01-PK	952701012	
Diffuse proximity	LED, Axial optic	M12 Connector		S5N-PA-5-B01-NK	952701342
				PNP	S5N-PA-5-B01-PK
	LED, Radial optic	2m Cable	NPN	S5N-PR-2-B01-NK	952701212
			PNP	S5N-PR-2-B01-PK	952701142
Short Diffuse proximity	LED, Radial optic	M12 Connector		S5N-PR-5-B01-PK	952701402
				PNP	S5N-PR-5-B01-PK
	LED, Axial optic	2m Cable	NPN	S5N-PA-2-C01-NK	952701092
			PNP	S5N-PA-2-C01-PK	952701022
Through beam receiver	LED, Axial optic	M12 Connector		S5N-PA-5-C01-NK	952701352
				PNP	S5N-PA-5-C01-PK
	LED, Radial optic	2m Cable	NPN	S5N-PR-2-C01-NK	952701222
			PNP	S5N-PR-2-C01-PK	952701152
Through beam emitter	LED, Radial optic	M12 Connector		S5N-PR-5-C01-PK	952701412
				PNP	S5N-PR-5-C01-PK
	LED, Axial optic	2m Cable	NPN	S5N-PA-2-C10-NK	952701102
			PNP	S5N-PA-2-C10-PK	952701032
Through beam emitter	LED, Axial optic	M12 Connector		S5N-PA-5-C10-NK	952701362
				PNP	S5N-PA-5-C10-PK
	LED, Radial optic	2m Cable	NPN	S5N-PR-2-C10-NK	952701232
			PNP	S5N-PR-2-C10-PK	952701162
Through beam emitter	LED, Radial optic	M12 Connector		S5N-PR-5-C10-PK	952701422
				PNP	S5N-PR-5-C10-PK
	LASER, Axial optic	2m Cable	NPN	S5N-PA-2-F00-NK	952701122
			PNP	S5N-PA-5-F00-NK	952701382
Through beam emitter	LASER, Axial optic	M12 Connector		S5N-PA-5-F00-PK	952701312
				PNP	S5N-PR-5-F00-PK
	LASER, Radial optic	2m Cable	-	S5N-PA-2-G00-XG	952001191
			-	S5N-PA-5-G00-XG	952001201
Through beam emitter	LASER, Radial optic	M12 Connector		S5N-PR-2-G00-XG	952001211
				-	S5N-PR-5-G00-XG
	LASER, Axial optic	2m Cable	-	S5N-PL-2-G00-XG	952001421
			-	S5N-PL-5-G00-XG	952001431
Through beam emitter	LASER, Axial optic	M12 Connector		S5N-PH-2-G00-XG	952002061
				-	S5N-PH-5-G00-XG


S5N - SHORT PLASTIC HOUSING - L/D INPUT MODELS (S5N-SA...)

Polarized retroreflective	LED, Axial optic	2m Cable	NPN	S5N-SA-2-B00-NK	952301062
			PNP	S5N-SA-2-B00-PK	952301012
Diffuse proximity	LED, Axial optic	Pig Tail M12		S5N-SA-3-B00-PK	952301122
				NPN	S5N-SA-2-C00-NK
	2m Cable		PNP	S5N-SA-2-C00-PK	952301022
			PNP	S5N-SA-3-C00-PK	952301132
Short Diffuse proximity Fixed Focus	LED, Axial optic	Pig Tail M12		S5N-SA-3-C10-PK	952301142
				NPN	S5N-SA-3-D50-PK
Through beam receiver	LED, Axial optic	Pig Tail M12		S5N-SA-3-F00-PK	952301152
				-	S5N-SA-3-G00-XG
Through beam emitter	LED, Axial optic	Pig Tail M12		S5N-SA-5-M01-NK	952301351
				PNP	S5N-SA-5-M01-PK
Background suppression	LED, Axial optic	Pig Tail M12		S5N-SA-5-T01-PK	952301241
				NPN	S5N-SA-5-T01-NK
Retroreflective for transparent	LED, Axial optic	M12 Connector			

S5N - METAL HOUSING - NO/NC STANDARD OUTPUT & IO-LINK MODELS (S5N-MA...PP/NN/OZ)

Retroreflective	LED, Axial optic	2m Cable	NPN	S5N-MA-2-A00-NN	952022091	
		M12 Connector	PNP	S5N-MA-2-A00-PP	952022081	
			NPN	S5N-MA-5-A00-NN	952022111	
		M12 Connector	PNP	S5N-MA-5-A00-PP	952022101	
LED, Radial optic	2m Cable		NPN	S5N-MA-2-B01-NN	952021501	
	M12 Connector	PNP	S5N-MA-2-B01-PP	952021001		
		NPN	S5N-MA-5-B01-NN	952021661		
	PNP	S5N-MA-5-B01-PP	952021201			
Polarized retroreflective	LED, Radial optic	2m Cable	NPN	S5N-MR-2-B01-NN	952021601	
			PNP	S5N-MR-2-B01-PP	952021141	
		M12 Connector	NPN	S5N-MR-5-B01-NN	952021761	
			PNP	S5N-MR-5-B01-PP	952021341	
	LASER, Axial optic	2m Cable	NPN	S5N-ML-2-B01-NN	952021821	
			PNP	S5N-ML-2-B01-PP	952021401	
		M12 Connector	NPN	S5N-ML-5-B01-NN	952021851	
			PNP	S5N-ML-5-B01-PP	952021441	
	LASER, Radial optic	2m Cable	IO-Link	S5N-ML-5-B01-OZ	952022180	
			NPN	S5N-MH-2-B01-NN	952021951	
		M12 Connector	PNP	S5N-MH-2-B01-PP	952021941	
			NPN	S5N-MH-5-B01-NN	952021971	
Long Diffuse proximity	LED, Axial optic	2m Cable	NPN	S5N-MA-2-C01-NN	952021511	
			PNP	S5N-MA-2-C01-PP	952021011	
		M12 Connector	NPN	S5N-MA-5-C01-NN	952021671	
			PNP	S5N-MA-5-C01-PP	952021211	
	LED, Radial optic	2m Cable	IO-Link	S5N-MA-5-C01-OZ	952022200	
			NPN	S5N-MR-2-C01-NN	952021611	
		M12 Connector	PNP	S5N-MR-2-C01-PP	952021151	
			NPN	S5N-MR-5-C01-NN	952021771	
	LASER, Axial optic	2m Cable	PNP	S5N-MR-5-C01-PP	952021351	
			NPN	S5N-ML-2-C01-NN	952021831	
		M12 Connector	PNP	S5N-ML-2-C01-PP	952021411	
			NPN	S5N-ML-5-C01-NN	952021861	
	LASER, Radial optic	2m Cable	PNP	S5N-ML-5-C01-PP	952021451	
			IO-Link	S5N-ML-5-C01-OZ	952022190	
		M12 Connector	NPN	S5N-MH-2-C01-NN	952021991	
			PNP	S5N-MH-2-C01-PP	952021981	
Short Diffuse proximity	LED, Axial optic	2m Cable	NPN	S5N-MA-2-C10-NN	952021521	
			PNP	S5N-MA-2-C10-PP	952021021	
		M12 Connector	NPN	S5N-MA-5-C10-NN	952021681	
			PNP	S5N-MA-5-C10-PP	952021221	
	LED, Radial optic	2m Cable	NPN	S5N-MR-2-C10-NN	952021621	
			PNP	S5N-MR-2-C10-PP	952021491	
		M12 Connector	NPN	S5N-MR-5-C10-NN	952021781	
			PNP	S5N-MR-5-C10-PP	952021481	
	Medium Diffuse proximity	LED, Axial optic	2m Cable	NPN	S5N-MA-2-C21-NN	952022131
				PNP	S5N-MA-2-C21-PP	952022121
			M12 Connector	NPN	S5N-MA-5-C21-NN	952022151
				PNP	S5N-MA-5-C21-PP	952022141
Fixed focus		LED, Axial optic	2m Cable	NPN	S5N-MA-2-D00-NN	952021531
				PNP	S5N-MA-2-D00-PP	952021031
		M12 Connector	NPN	S5N-MA-5-D00-NN	952021691	
			PNP	S5N-MA-5-D00-PP	952021231	
Fiber optic	LED, Radial optic	2m Cable	NPN	S5N-MR-2-D00-NN	952021631	
			PNP	S5N-MR-2-D00-PP	952021161	
		M12 Connector	NPN	S5N-MR-5-D00-NN	952021791	
			PNP	S5N-MR-5-D00-PP	952021361	
	Through beam receiver	LED, Axial optic	2m Cable	NPN	S5N-MA-2-E01-NN	952021881
				PNP	S5N-MA-2-E01-PP	952021041
			M12 Connector	NPN	S5N-MA-5-E01-NN	952021891
				PNP	S5N-MA-5-E01-PP	952021241
Through beam receiver	LED, Radial optic	2m Cable	NPN	S5N-MA-2-F01-NN	952021541	
			PNP	S5N-MA-2-F01-PP	952021051	
		M12 Connector	NPN	S5N-MA-5-F01-NN	952021701	
			PNP	S5N-MA-5-F01-PP	952021251	
	LASER, Axial optic	2m Cable	NPN	S5N-MR-2-F01-NN	952021641	
			PNP	S5N-MR-2-F01-PP	952021171	
		M12 Connector	NPN	S5N-MR-5-F01-NN	952021801	
			PNP	S5N-MR-5-F01-PP	952021371	
	LASER, Radial optic	2m Cable	NPN	S5N-ML-2-F01-NN	952021841	
			PNP	S5N-ML-2-F01-PP	952021421	
		M12 Connector	NPN	S5N-ML-5-F01-NN	952021871	
			PNP	S5N-ML-5-F01-PP	952021461	
Through beam receiver	2m Cable	NPN	S5N-MH-2-F01-NN	952022031		
		PNP	S5N-MH-2-F01-PP	952022021		
	M12 Connector	NPN	S5N-MH-5-F01-NN	952022051		
		PNP	S5N-MH-5-F01-PP	952022041		

S5N - METAL HOUSING - NO/NC STANDARD OUTPUT & IO-LINK MODELS (S5N-MA...PP/NN/OZ)

Through beam emitter	LED, Axial optic	2m Cable	-	S5N-MA-2-G00-XG	952021061
		M12 Connector	-	S5N-MA-5-G00-XG	952021261
	LED, Radial optic	2m Cable	-	S5N-MR-2-G00-XG	952021181
		M12 Connector	-	S5N-MR-5-G00-XG	952021381
	LASER, Axial optic	2m Cable	-	S5N-ML-2-G00-XG	952021431
		M12 Connector	-	S5N-ML-5-G00-XG	952021471
LASER, Radial optic	2m Cable	-	S5N-MH-2-G00-XG	952022061	
	M12 Connector	-	S5N-MH-5-G00-XG	952022071	
Background suppression	LED, Axial optic	2m Cable	NPN	S5N-MA-2-M03-NN	952021551
Background suppression			M12 Connector	PNP	S5N-MA-2-M03-PP
	LED, Radial optic	M12 Connector		 IO-Link	S5N-MA-5-M03-OZ
Retroreflective for transparent			LED, Axial optic	2m Cable	PNP
	M12 Connector	PNP			S5N-MS-2-M03-PP
Retroreflective for transparent		LED, Axial optic	2m Cable	NPN	S5N-MA-2-T01-NN
	M12 Connector			PNP	S5N-MA-2-T01-PP
Retroreflective for transparent		LED, Radial optic	2m Cable	NPN	S5N-MA-5-T01-NN
	M12 Connector			PNP	S5N-MA-5-T01-PP
Retroreflective for transparent		LED, Radial optic	2m Cable	NPN	S5N-MR-2-T01-NN
	M12 Connector			PNP	S5N-MR-2-T01-PP
Retroreflective for transparent		LED, Radial optic	2m Cable	NPN	S5N-MR-5-T01-NN
	M12 Connector			PNP	S5N-MR-5-T01-PP
Luminescence		LED, Axial optic	M12 Connector	PNP	S5N-MA-5-U03-PP
Contrast	LED, Axial optic		2m Cable	PNP	S5N-MA-2-W03-PP
		M12 Connector	NPN	S5N-MA-5-W03-NN	952021751
			PNP	S5N-MA-5-W03-PP	952021311

S5N - METAL HOUSING - L/D INPUT MODELS MODELS (S5N-MA...PK/NK)

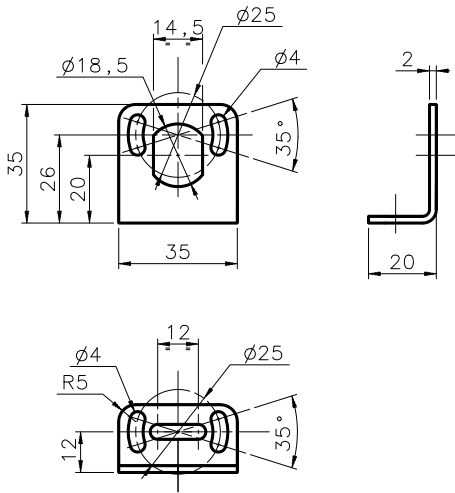
Retroreflective		M12 Connector	NPN	S5N-MA-5-A00-NK	952701802
			PNP	S5N-MA-5-A00-PK	952701532
Polarized retroreflective		M12 Connector	NPN	S5N-MA-5-B01-NK	952701812
			PNP	S5N-MA-5-B01-PK	952701762
Diffuse proximity	LED, Axial optic	2m Cable	NPN	S5N-MA-2-C01-NK	952701622
			PNP	S5N-MA-2-C01-PK	952701562
		M12 Connector	NPN	S5N-MA-5-C01-NK	952701822
			PNP	S5N-MA-5-C01-PK	952701772
		2m Cable	NPN	S5N-MA-2-C10-NK	952701632
			PNP	S5N-MA-2-C10-PK	952701572
M12 Connector	NPN	S5N-MA-5-C10-NK	952701832		
	PNP	S5N-MA-5-C10-PK	952701522		
Through beam receiver		M12 Connector	NPN	S5N-MA-5-F00-NK	952701842
			PNP	S5N-MA-5-F00-PK	952701782
Through beam emitter	LED, Axial optic	2m Cable	-	S5N-MA-2-G00-XG	952021061
		M12 Connector	-	S5N-MA-5-G00-XG	952021261
	LED, Radial optic	2m Cable	-	S5N-MR-2-G00-XG	952021181
		M12 Connector	-	S5N-MR-5-G00-XG	952021381
	LED, Axial optic	2m Cable	-	S5N-ML-2-G00-XG	952021431
		M12 Connector	-	S5N-ML-5-G00-XG	952021471
	LED, Radial optic	2m Cable	-	S5N-MH-2-G00-XG	952022061
		M12 Connector	-	S5N-MH-5-G00-XG	952022071

S5N - INOX HOUSING - L/D INPUT MODELS MODELS (S5N-NA...)

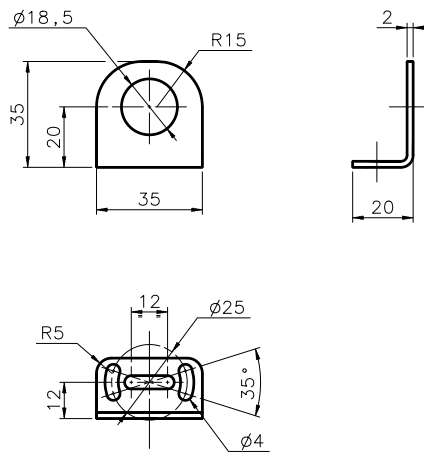
Polarized retroreflective		M12 Connector	NPN	S5N-NA-5-B01-NK	952301461
			PNP	S5N-NA-5-B01-PK	952301381
Diffuse proximity Inox		M12 Connector	NPN	S5N-NA-5-C11-NK	952301481
			PNP	S5N-NA-5-C11-PK	952301401
Through beam receiver Inox	LED, Axial optic	M12 Connector	NPN	S5N-NA-5-F01-NK	952301511
Through beam emitter inox			PNP	S5N-NA-5-F01-PK	952301431
Background suppression inox		M12 Connector	-	S5N-NA-5-G01-XG	952301441
			NPN	S5N-NA-5-M01-NK	952301501
Retroreflective for transparent inox		M12 Connector	PNP	S5N-NA-5-M01-PK	952301421
			NPN	S5N-NA-5-T01-NK	952301471
			PNP	S5N-NA-5-T01-PK	952301391

ACCESSORIES

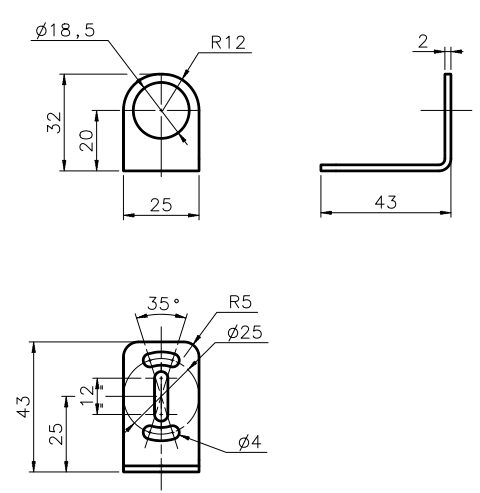
ST-5010



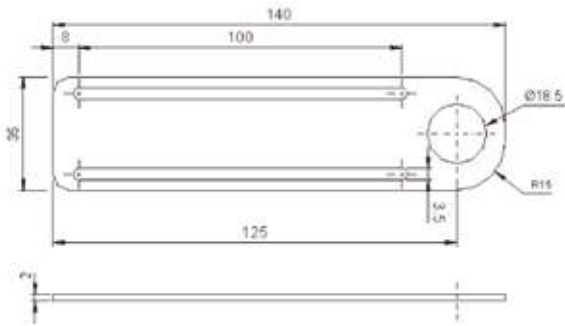
ST-5011



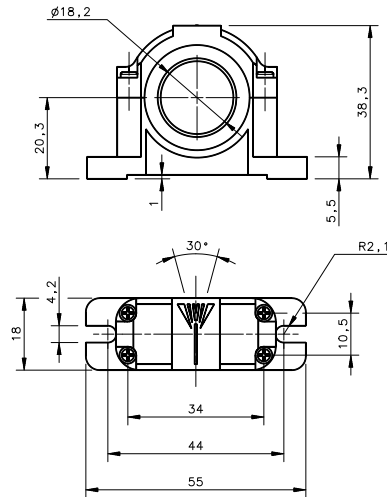
ST-5012



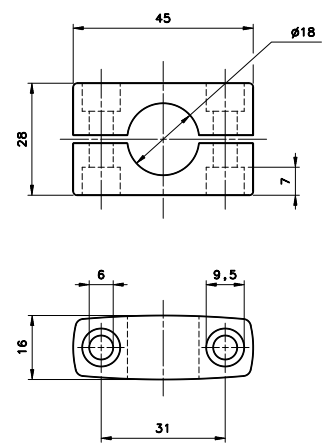
ST-5017



SWING-18



SP-40



JOINT 18

MICRO 18

MHF

M18 FLARED PLASTIC NUT



mm

MODEL	DESCRIPTION	ORDER No.
ST-5010	M18/14 mounting bracket	95ACC5230
ST-5011	M18 mounting bracket short	95ACC5240
ST-5012	M18 mounting bracket long	95ACC5250
ST-5017	M18 mounting bracket	95ACC5270
S50 EASY -IN	M18/14 EASY in™ adjustable mounting support	95ACC 5300
JOINT -18	M18 jointed support	95ACC 5220
MICRO -18	support with micrometric regulation for tubular M18 sensors	95ACC 1380
SP-40	mounting bracket tubular	95ACC1370
SWING-18	adjustable support for M18 tubular sensors	895000006
PLASTIC NUT	flared mounting nut	95ACC2630
M18 FLARED NUT	S5N mounting nut M18 flared nut (1 pc)	95ACC2630
M18 METAL NUT	S5N mounting nut M18 nut (1 pc)	G602000017
M18 PLASTIC NUT KIT	S5N mounting nut M18 nuts kit (100 pcs)	G602000008
MEK -PROOF	front protection (only for metal models)	G5000001

IO-LINK CONNECTIVITY

MODEL	DESCRIPTION	ORDER No.
CBX-8IOL-EIP	CBX-8IOL-EIP 8P IOL M12 EIP MASTER	95ACC8180
CBX-8IOL-PNIO	CBX-8IOL-PNIO 8P IOL M12 PROFINET MASTER	95ACC8190

CABLES

TYPE	DESCRIPTION	LENGTH	MODEL	ORDER No.
Axial M12 Connector	4-pole, grey, P.V.C.	3 m	CS-A1-02-G-03	95A251380
		5 m	CS-A1-02-G-05	95A251270
		7 m	CS-A1-02-G-07	95A251280
		10 m	CS-A1-02-G-10	95A251390
	4-pole, P.U.R.	2 m	CS-A1-02-R-02	95A251540
		5 m	CS-A1-02-R-05	95A251560
Radial M12 Connector	4-pole, grey, P.V.C.	3 m	CS-A2-02-G-03	95A251360
		5 m	CS-A2-02-G-05	95A251240
		7 m	CS-A2-02-G-07	95A251245
		10 m	CS-A2-02-G-10	95A251260
	4-pole, P.U.R.	2 m	CS-A2-02-R-02	95A251550
		5 m	CS-A2-02-R-05	95A251570
Radial M12 Connector with LED (for PNP N.O. sensors)	4-pole, grey, P.V.C.	3 m	CS-A2-12-G-03	95A251400
		5 m	CS-A2-12-G-05	95A251350
		10 m	CS-A2-12-G-10	95A251370
Axial M12 Connector	4-pole, shielded, black, P.V.C.	3 m	CV-A1-22-B-03	95ACC1480
		5 m	CV-A1-22-B-05	95ACC1490
		10 m	CV-A1-22-B-10	95ACC1500
		15 m	CV-A1-22-B-15	95ACC2070
		25 m	CV-A1-22-B-25	95ACC2090
Radial M12 Connector	4-pole, shielded, black, P.V.C.	3 m	CV-A2-22-B-03	95ACC1540
		5 m	CV-A2-22-B-05	95ACC1550
		10 m	CV-A2-22-B-10	95ACC1560
Axial M12 Connector	4-pole, U.L., black, P.V.C.	3 m	CS-A1-02-U-03	95ASE1120
		5 m	CS-A1-02-U-05	95ASE1130
		10 m	CS-A1-02-U-10	95ASE1140
		15 m	CS-A1-02-U-15	95ASE1150
		25 m	CS-A1-02-U-25	95ASE1160
	4-pole, black	Connector- not cabled	CS-A1-02-B-NC	G5085002
Radial M12 Connector	4-pole, black	Connector- not cabled	CS-A2-02-B-NC	G5085003
Axial M12 Connector	5-pole, L coded power cable	3 m	CS-M1-02-B-03	95ACC0007
Axial M12 F/M12 M Connector	4-pole, double headed	3 m	CS-I1-02-B-03	95ACC0009

00,11/2021

DATALOGIC PRODUCT OFFERING



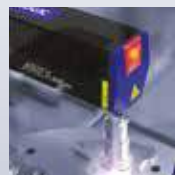
Sensors



Hand Held scanners



Mobile Computers



Laser Marking Systems



Safety Laser Scanner



Vision Systems



Stationary Industrial Scanners



Safety Light Curtains



S5N-PA/MA...W Contrast sensor

INSTRUCTION MANUAL

CONTROLS

OUTPUT LED

The yellow LED on indicates that the N.O. (normally open) output status is closed.

READY LED

The green LED indicates a normal operating function.
 If the green LED flashes, the acquisition has failed.
 Please refer to the "SETTING" paragraph for setup procedure indications.

SET PUSHBUTTON

A long pressure on the pushbutton activates the self-setting procedure.

INSTALLATION

S5N-PA...W: The sensor can be fixed by means of the M18x1 threaded body through a \varnothing 18 mm hole, using the specific washer and the enclosed 24 mm nuts (maximum torque of tightening 1.5 Nm).
 Alternatively, the sensor can be mounted through the two housing's holes using two screws (M3x22 or longer) and nuts.
 Amongst the various possible solutions, we suggest to choose the combination that offers the best visibility of the signalling LEDs and the easiest access to the SET pushbutton.

22 mm nuts, h=8 mm, (2 Nm maximum tightening torque) are available to guarantee an improved torque.

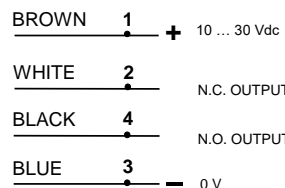
S5N-MA...W: The sensor can be fixed by means of the M18x1 threaded body through a \varnothing 18 mm hole, using the two CH.24 nuts enclosed (22 Nm maximum tightening torque).

For both plastic version and metallic version are available various orientable fixing brackets to ease the sensor positioning (please refer to the accessories listed in the general catalogue).

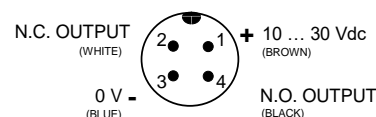
The operating distance is measured from the front surface of the sensor lens.

CONNECTIONS

The connections are compliant to the EN 60947-5-2 standard.

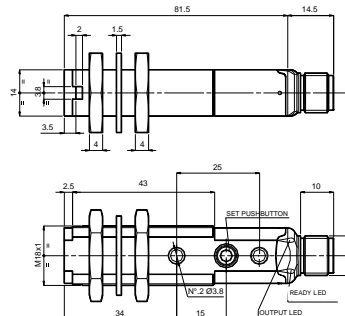


M12 CONNECTOR

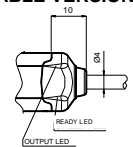


DIMENSIONS

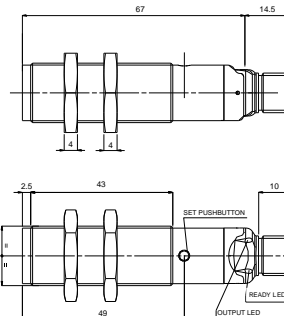
S5N-PA VERSION



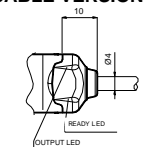
CABLE VERSION



S5N-MA VERSION



CABLE VERSION



TECHNICAL DATA

	S5N-PA PLASTIC VERSIONS	S5N-MA METALLIC VERSIONS
Power supply:	10 ... 30 Vdc (limit values)	
Ripple:	2 Vpp max.	
Current consumption (output current excluded):	25 mA max.	
Outputs:	N.O. and N.C.; PNP or NPN; 30 Vcc max. (short-circuit protection)	
Output current:	100 mA max.	
Output saturation voltage:	2 V max.	
Response time:	100 μ s	
Switching frequency:	5 kHz	
Jitter:	50 μ s	
Indicators:	OUTPUT LED (YELLOW) / LED READY (GREEN)	
Setting:	SET pushbutton	
Operating mode:	LIGHT mode on N.O. output / DARK mode on N.C. output	
Data retention:	non volatile EEPROM memory	
Operating temperature:	-10 ... 55 °C	
Storage temperature:	-20 ... 70 °C	
Insulating strength:	500 Vac 1 min., between electronics and housing	
Insulating resistance:	>20 M Ω 500 Vdc, between electronics and housing	
Operating distance (typical values):	10 mm \pm 2 mm	
Minimum spot dimension:	45mm	
Emission type:	white light LED (400-700 nm)	
Ambient light rejection:	according to EN 60947-5-2	
Vibrations:	0.5 mm amplitude, 10 ... 55 Hz frequency, for every axis (EN60068-2-6)	
Shock resistance:	11 ms (30 G) 6 shock for every axis (EN60068-2-27)	
Housing:	PBT	Nickel plated brass
Lenses:	PMMA	
Mechanical protection:	IP67 Metal versions type 1 enclosure	
Connections:	2 m cable \varnothing 4 mm / M12 - 4 pole connector	
Weight:	75 g. max. cable vers. 25 g. max. connector vers.	110 g. max. cable vers. 60 g. max. connector vers.
ATEX 2014/34/EU	II 3D EX tc IIIC IP67 T 85°C	
Emission:	Exempt Risk Group (RG0) according to IEC 62471	

SETTING

EASY TOUCH™

The sensor uses the patent-covered EASY TOUCH™ technology that allows a rapid and safe self-setting of the product.
 Two different setting possibilities are available:

- **EASY TOUCH™**; a long pressure of the SET pushbutton allows self-setting.
- **FINE DETECTION**; to be used only in particularly critical conditions, this setting procedure is used only when the EASY TOUCH™ is not sufficient.

Setting of S5N-PA/MA...W

To achieve a correct sensor functioning, the coloured mark or object to be detected has to be placed at the right reading distance.

- **EASY TOUCH™ (standard detection in the DARK mode)**

The EASY TOUCH™ technology allows the functioning in the DARK mode (mark presents a lower light intensity respect to the background).

The mark to detect has to be placed correctly at the right reading distance within the sensor spot.
 Press the SET pushbutton until the READY LED turns OFF.
 Release the SET pushbutton and wait for the READY LED to turn ON.
 The sensor is now ready to detect the pre-set coloured mark or object (output LED turns ON when the N.O. output is closed).

- **Fine detection (DARK or LIGHT mode)**

This mode offers an improved detection precision.
 The sensor can function either in the DARK operating or in the LIGHT operating mode (light-coloured mark on dark background).
 The operating mode is selected automatically by the sensor.
 The mark to detect has to be placed correctly at the right reading distance within the sensor spot.

Press the SET button until the READY LED turns OFF.
 Hold the SET button until the READY LED turns ON (3s).

The sensor is acquiring the mark.
 When the READY LED flashes slowly, position the background to coincide with the sensor spot and press the SET button again.

If the READY LED lights up permanently, the acquisition has been successful; if the LED flashes quickly, the acquisition has failed due to insufficient contrast. Pressing the SET button returns the sensor to the previous setting. Repeat the procedure from the beginning.
 The output LED is ON and the N.O. output is closed, when the sensor is positioned on the pre-set coloured mark.

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For information about the disposal of Waste Electrical and Electronic Equipment (WEEE), please refer to the website at www.datalogic.com.

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