◇DATALOGIC

S81

Cost effective T.O.F. LASER distance sensor

- Class 2 visible red LASER emission

- Plastic housing and optics

- 2 PNP or NPN digital outputs

- 0-10 V analog output or alarm output

APPLICATIONS

-Packaging end of lines
-Carton stacking control
-Paper reel unwinding control
-Automotive assembling line

CE c(UL)us LISTED

S81		
Distance sensor		0,3...4 m
Repeatability		± 4 mm
Switching frequency		80 Hz
Light emission		red LASER (class 2)
Response time		5 ms
Setting		push buttons
Power supply	Vdc	24 Vdc +/- 20%
	Vac	
	Vac/dc	
Output	PNP	▪
	NPN	▪
	NPN/PNP	
	relay	
	other	0...10 V Analog output (S81-Y), Alarm output (S81-M)
Connection	cable	
	connector	▪
	pig-tail	
Approximate dimensions (mm)		31x53x80
Housing material		ABS
Mechanical protection		IP67

| TECHNICAL DATA	
Power supply	24 Vdc ± 20% (limit values)
Ripple	2 Vpp max.
Consumption (output current excluded)	120 mA max. (100 mA at 24 V)
Light emission	red Laser 665 nm
Setting	OUT1 and OUT2 push-buttons
Indicators	yellow OUTPUT1 and OUTPUT2 LEDs green POWER/READY LED
Output	2 PNP or NPN analog output with 0-10 V (mod. S81-Y), alarm output (S81-M)
Output current	100 mA max.
Response time	5 ms
Switching frequency	80 Hz
Connection	M12 5-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
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	ABS
Lens material	PMMA
Operating temperature	0 … 50 °C
Storage temperature	–20 … 70 °C
Weight	92 g max.

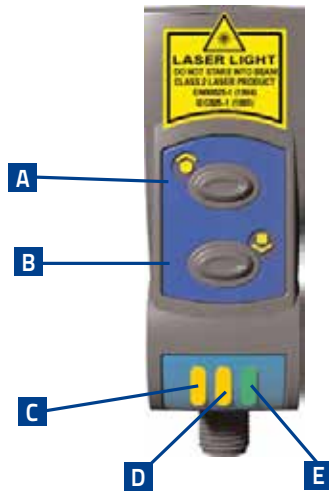## DIMENSIONS
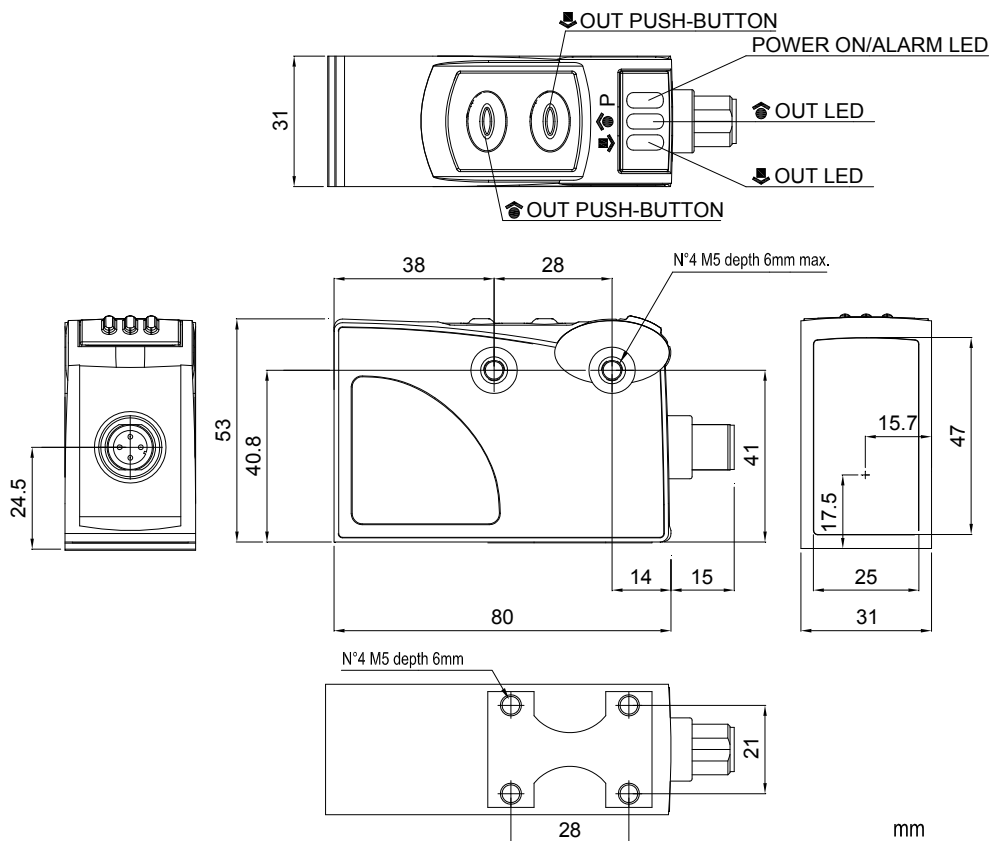
CONNECTIONS

M12 Connector

Background suppression S81-M
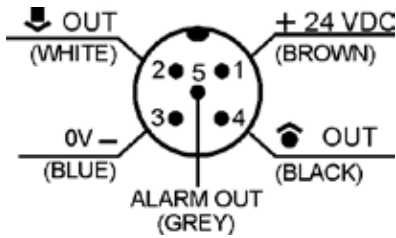
Distance S81-Y
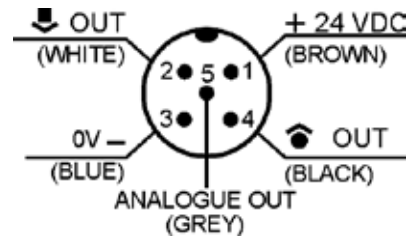
INDICATORS AND SETTINGS

A Output2 push-button
B Output1 push-button
C Output1 LED
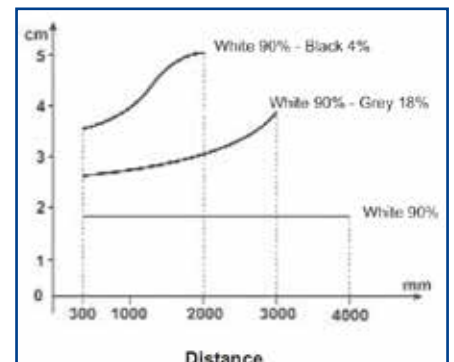**D** Output2 LED
E Power/Alarm LED

DETECTION DIAGRAMS
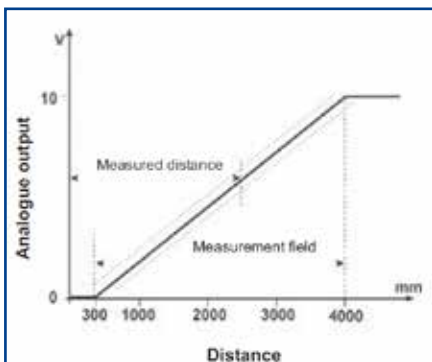
Analogue output
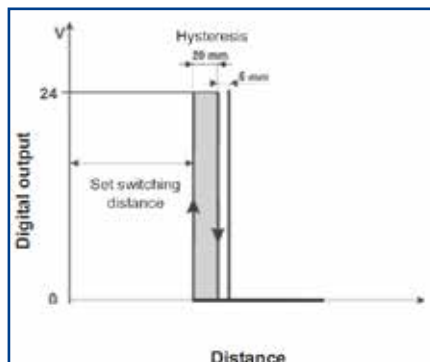
Digital outputs

White/Black difference

MODEL SELECTION AND ORDER INFORMATION

OPTIC FUNCTION	HOUSING	CONNECTION	OUTPUT	MODEL	ORDER No.
Background suppression	Plastic	M12 Connector	NPN, Alarm	S81-PL-5-M03-NNC	951551000
			PNP, Alarm	S81-PL-5-M03-PPC	951551110
Distance			NPN, Analog 0...10V	S81-PL-5-Y03-NNV	951551120
			PNP, Analog 0...10V	S81-PL-5-Y03-PPV	951551030
			PNP, Analog 0...10V, Scalable	S81-PL-5-Y03-PPVK	951551040

ACCESSORIES

ST-S85-STD
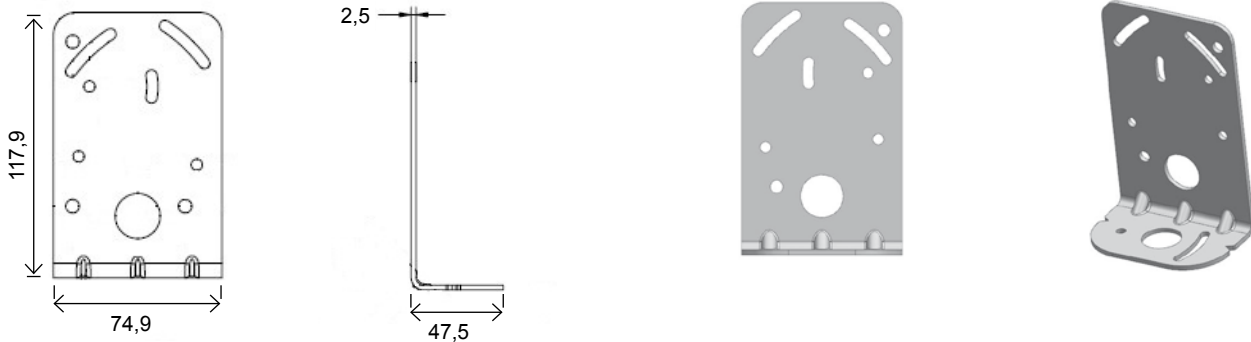
MODEL	DESCRIPTION	ORDER No.
ST-S85-STD	mounting bracket	95ACC7840

CABLES

TYPE	DESCRIPTION	LENGTH	MODEL	ORDER No.
Axial M12 connector	5-pole, grey, P.V.C.	3 m	CS-A1-03-G-03	95ACC2110
		5 m	CS-A1-03-G-05	95ACC2120
		10 m	CS-A1-03-G-10	95ACC2140
	5-pole, U.L., black, P.V.C	3 ma	CS-A1-03-U-03	95ASE1170
		5 m	CS-A1-03-U-05	95ASE1180
		10 m	CS-A1-03-U-10	95ASE1190
		15 m	CS-A1-03-U-15	95ASE1200
		25 m	CS-A1-03-U-25	95ASE1210
		50 m	CS-A1-03-U-50	95A252700