

S85




LASER DISTANCE SENSOR FOR PRECISE MEASUREMENT UP TO 20 M WITH MILLIMETRIC RESOLUTION AND REPEATABILITY THROUGH THE TIME OF FLIGHT TECHNOLOGY

- Direct Time Of Flight Technology
- Class 2 visible red LASER for an easy alignment with the target
- Measuring range up to 10m or 20m in the advanced model
- 1 mm resolution, 7 mm accuracy, 1 mm repeatability
- 4-20 mA or 0-10 V scalable analog output and 2 digital outputs
- RS485 serial interface in the advanced model
- Standard M12 connector
- IP67 Industrial metal housing



APPLICATIONS

- Automated warehousing
- Processing and Packaging machinery
- Industrial vehicles
- Automotive

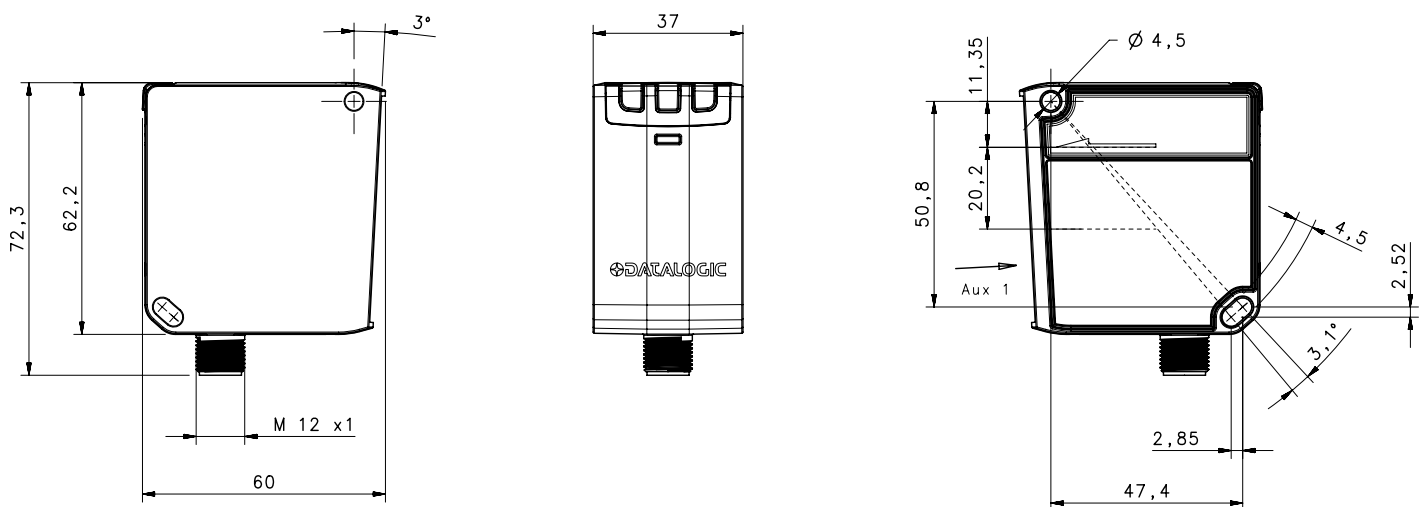
S85

Distance sensor (90% White target)		0,2...20 m (S85...Y13)
		0,2...10 m (S85...Y03)
Repeatability		1...2 mm
Accuracy		7...10 mm
Resolution		1 mm
Light emission		red LASER (class 2)
Response time		30 ms (S85...Y03)
		15...30 ms (S85...Y13)
Serial interface		RS485 (S85...Y13)
Setting		Display (S85...Y13)
		push-buttons (S85...Y03)
Power supply	Vdc	24 Vdc +/- 20%
	PNP	•
	NPN	•
	Push pull	•
	other	Analog output: 4...20 mA or 0...10 V
Connection		connector
Approximate dimensions (mm)		60x72x37
Housing material		Zamak
Mechanical protection		IP67

TECHNICAL DATA

Power supply	24 Vdc $\pm$ 20%
Consumption (output current excluded)	2,8 W max. (mod. S85...Y03) 3 W max. (mod. S85...Y13)
Light emission	red Laser 658 nm
Setting	push-buttons (mod. S85...Y03) push-buttons and display (mod. S85...Y13)
Operating distance	90% white target 0,2...10 m (mod. S85...Y03), 0,2...20 m (mod. S85...Y13) 18% grey target 0,2...5 m (mod. S85...Y03), 0,2...8 m (mod. S85...Y13) 6% black target 0,2...3 m (mod. S85...Y03), 0,2...5 m (mod. S85...Y13)
Indicators	yellow Q1 LED, Q2 LED green/red POWER/OUT OF RANGE LED 5-digit multi display (mod. S85...Y13)
Output	push pull/Q (mod. S85...Y03) PNP, NPN, push pull, Q, Qneg (mod. S85...Y13)
Analog output	0-10 V (mod. S85...Y03-OOV) 4-20 mA (mod. S85...Y03-OOI) 0-10 V/4-20 mA (mod. S85...Y13-OOIVY)
Response time	slow 45 ms (mod. S85...Y13) medium 30 ms fast 15 ms (mod. S85...Y13)
Connection	M12 5-pole connector (mod. S85...Y03), M12 8-pole connector (mod. S85...Y13)
Dielectric strength	500 Vac, 1 min between electronics and housing
Insulating resistance	>20 M Ω , 500 Vdc between electronics and housing
Mechanical protection	IP67
Ambient light rejection	according to EN 60947-5-2, >40 Klux DC ambient light
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	ZINC ALLOY ZAMA 13 EN-1774/PC LEXAN 121R display
Lens material	PMMA
Operating temperature	-15 ... 50 °C
Storage temperature	-25 ... 70 °C
Weight	250 g max.

DIMENSIONS

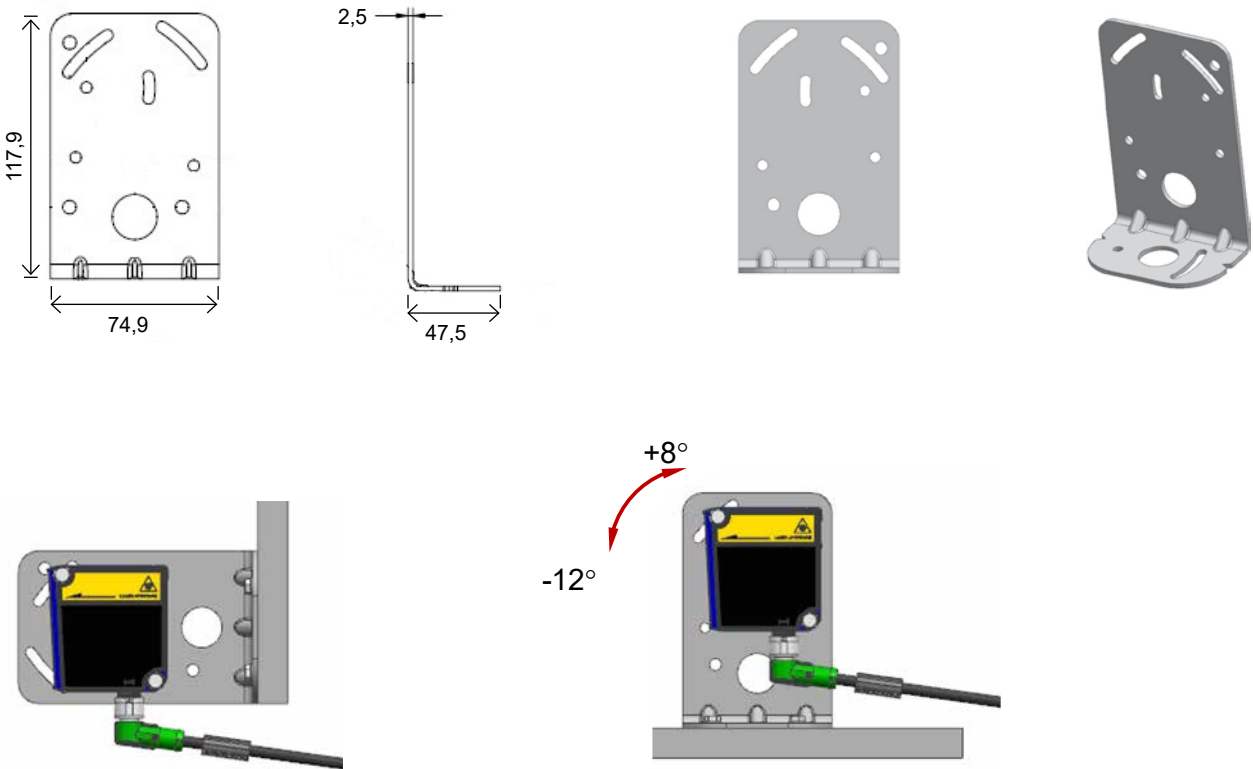


MODEL SELECTION AND ORDER INFORMATION

OPTIC FUNCTION	OPERATING DISTANCE	CONNECTION	OUTPUT & INPUT	MODELS	ORDER No.
Distance sensor (Standard)	10 m	M12 5-pole connector	2 Digital outputs; Analog output: Voltage (0...10 V)	S85-MH-5-Y03-00V	951511010
			2 Digital outputs; Analog output: Current (4... 20mA)	S85-MH-5-Y03-00I	951511030
Distance sensor (Advanced)	20 m	M12 8-pole connector	2 Digital outputs; Analog output: Current (4... 20mA) or Voltage (0...10 V); RS485; Multifunction input	S85-MH-5-Y13-00IVY	951511020
			2 Digital outputs; RS485; Multifunction input	S85-MH-5-Y13-00Y	951511040

ACCESSORIES

ST-S85-STD



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