

# S300 PR



Heavy duty sensor for outdoor applications and harsh environments

- Industrial plastic housing with IP67 mechanical protection
- Defogging system function
- Double independent timing functions with double time scale from 0-2s or 0-10s, One-Delay, Off Delay, ONE SHOT



## APPLICATIONS

- Packaging end of line, palletizers
- Outdoor or indoor gates control
- Automotive plants
- Automated warehousing

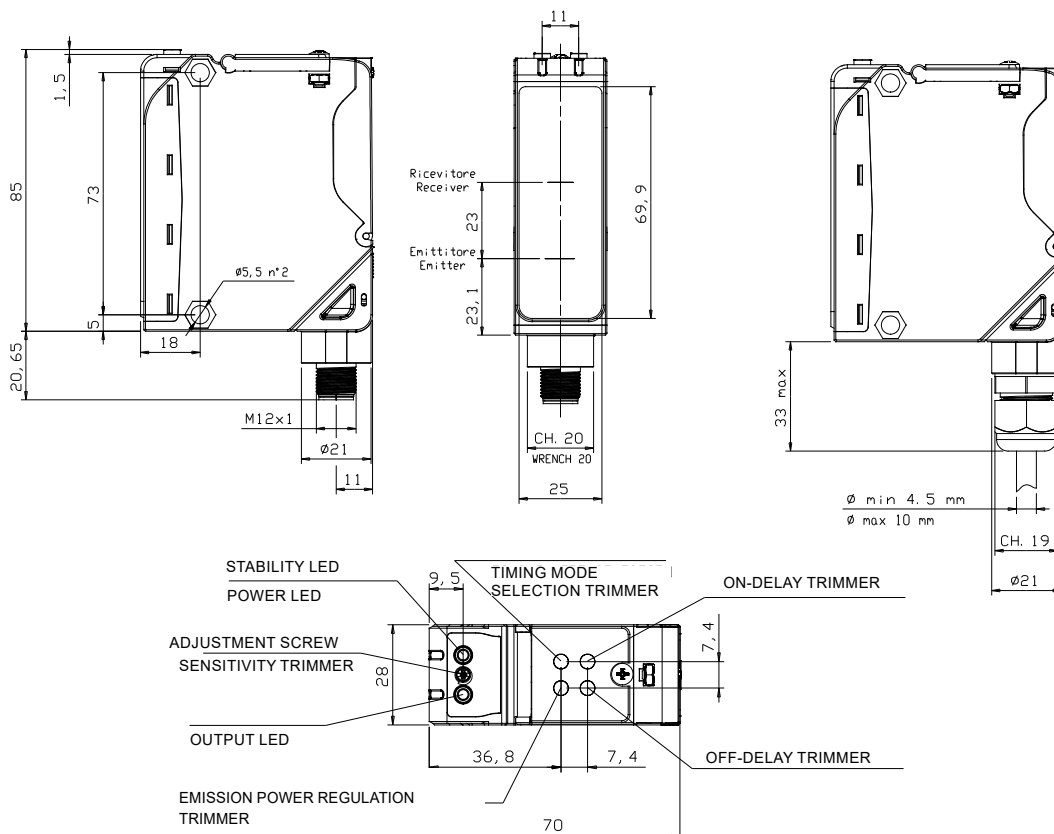
(\*)DC models:  
ATEX II 3DG

S300 PA		
<b>Through beam</b>	0...60 m	
<b>Polarized retroreflective</b>	0,1...22 m	
<b>Diffuse proximity</b>	0,05...5 m	
<b>Background suppression</b>	0,4...2,5 m	
<b>Power supply</b>	Vdc	10...30 V
	Vac	
	Vac/dc	24...240 Vac/24...60 Vdc
<b>Output</b>	PNP	
	NPN	
	NPN/PNP	•
	relay	•
	other	
<b>Connection</b>	cable	
	connector	•
	pig-tail	
<b>Approximate dimensions (mm)</b>	25x100x70	
<b>Housing material</b>	PBT	
<b>Mechanical protection</b>	IP67	

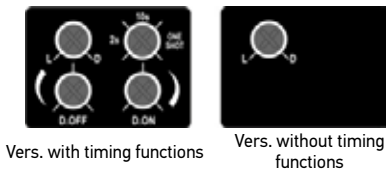
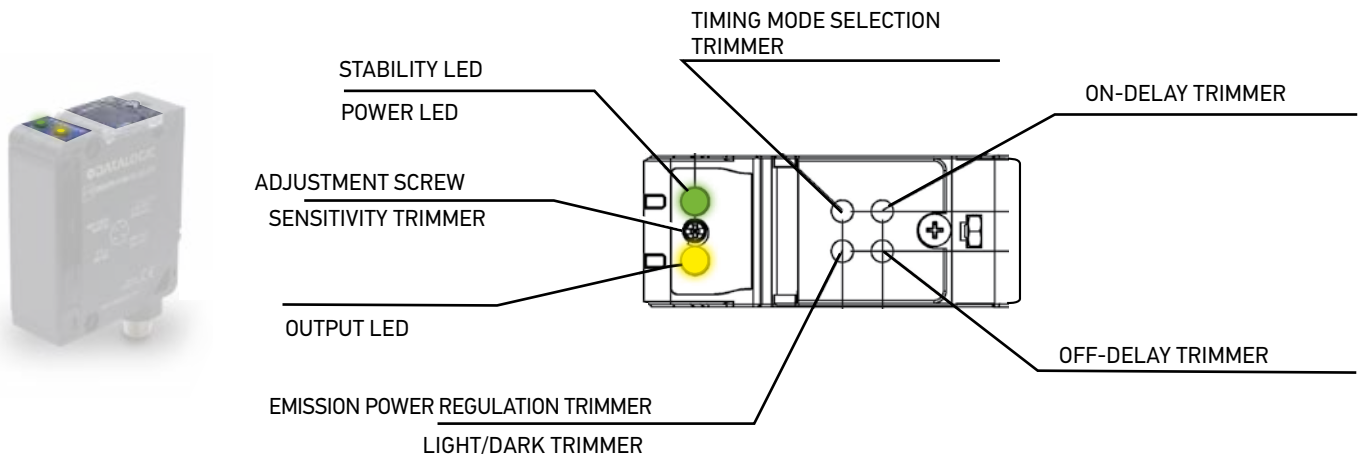
# TECHNICAL DATA

<b>Power supply</b>	10 ... 30 Vdc (mod. S300...2/5) 24...240 Vac/24...60 Vdc (mod. S300...1)
<b>Ripple</b>	10% max.
<b>Consumption (output current excluded)</b>	30 mA max. (mod. S300...2/5-B/C) 35 mA max. (mod. S300...2/5-M) 25 mA max. (mod. S300...2/5-F) 20 mA max. (mod. S300...2/5-G) 3 VA max. (mod. S300...1)
<b>Light emission</b>	red LED 660 nm (mod. S300...B) IR LED 880 nm (mod. S300...C/G/M)
<b>Setting</b>	sensitivity trimmer, DARK/LIGHT trimmer (mod. S300...F/C/B) 15 turns adjustment screw/DARK/LIGHT trimmer (mod. S300...M) emission power regulation trimmer (mod. S300...G) versions with timing functions: time base selection and one shot trimmer/ON DELAY trimmer/OFF DELAY trimmer (mod. S300...x06)
<b>Indicators</b>	yellow OUTPUT LED (excl. mod. S300...G) green STABILITY LED, POWER LED (mod. S300...G)
<b>Output</b>	PNP or NPN open collector (mod. S300...2/5); Electromechanical SPDT 250 Vac/30 Vdc (mod. S300...1)
<b>Output current</b>	100 mA (mod. S300...2/5) 3 A max. (mod. S300...1)
<b>Saturation voltage</b>	2,4 V max.
<b>Response time</b>	1 ms (mod. S300...2/5-B/C/F/G) 2 ms (mod. S300...2/5-M) 20 ms (mod. S300...1)
<b>Switching frequency</b>	500 Hz (mod. S300...2/5-B/C/F/G) 250 Hz (mod. S300...2/5-M) 25 Hz (mod. S300...1)
<b>Connection</b>	terminal block, M12 4-pole connector (only DC mod.)
<b>Dielectric strength</b>	500 Vac, 1 min between electronics and housing
<b>Insulating resistance</b>	>20 MΩ, 500 Vdc between electronics and housing
<b>Electrical protection</b>	class 2 (mod. S300...2/5)
<b>Mechanical protection</b>	IP67 (IEC/EN60529)/cable gland EN50262
<b>Ambient light rejection</b>	according to EN 60947-5-2
<b>Vibrations</b>	0,5 mm amplitude, 10 ... 55 Hz frequency, for every axis (EN60068-2-6)
<b>Shock resistance</b>	11 ms (30 G) 6 shock for every axis (EN60068-2-27)
<b>Housing material</b>	PBT 30% glass fiber-reinforced
<b>Lens material</b>	frontal window and lens in PC
<b>Operating temperature</b>	-40 ... 55 °C
<b>Storage temperature</b>	-40 ... 70 °C
<b>Weight</b>	140 g (mod. S300...2/5), 150 g (mod. S300...1)

# DIMENSIONS

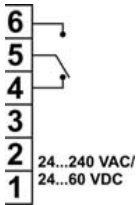


# INDICATORS AND SETTINGS

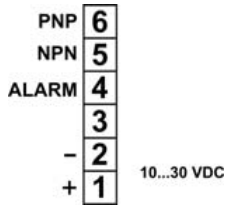


# CONNECTIONS

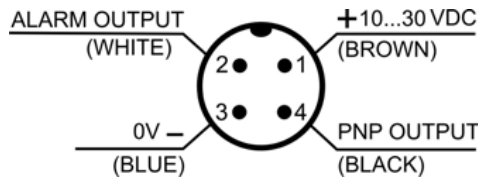
## MODELS



## DC MODELS

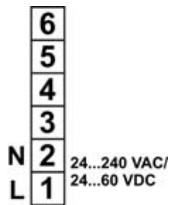


## M12 CONNECTOR (only DC models)

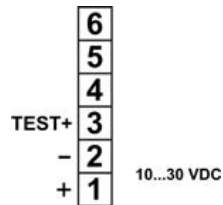


Through beam emitter

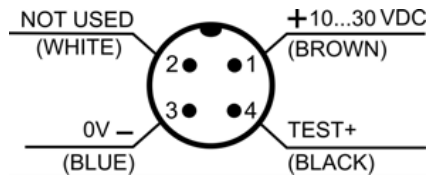
## AC MODELS



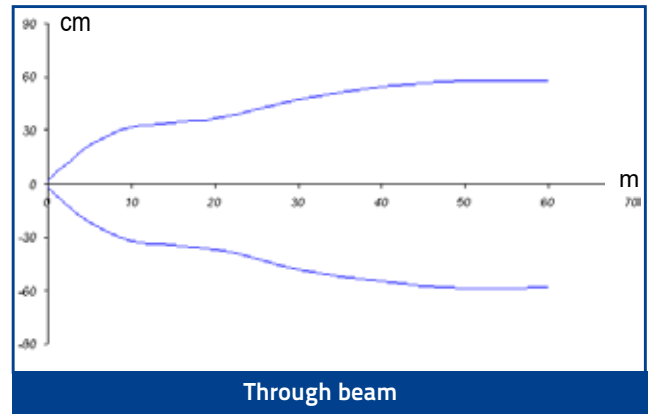
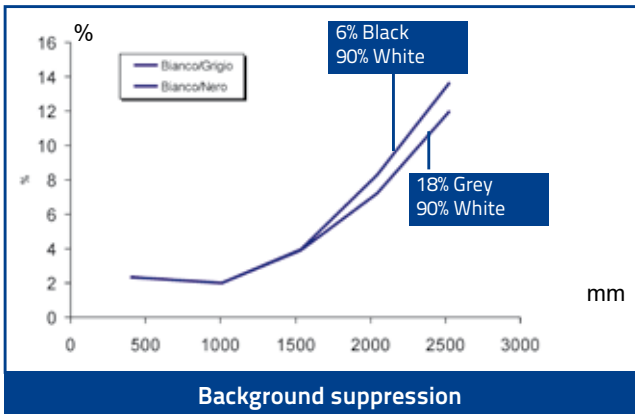
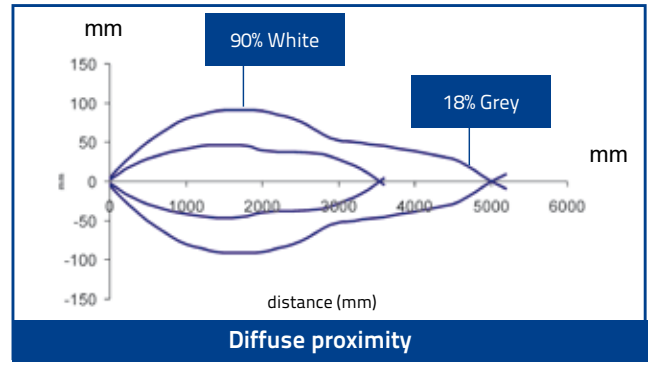
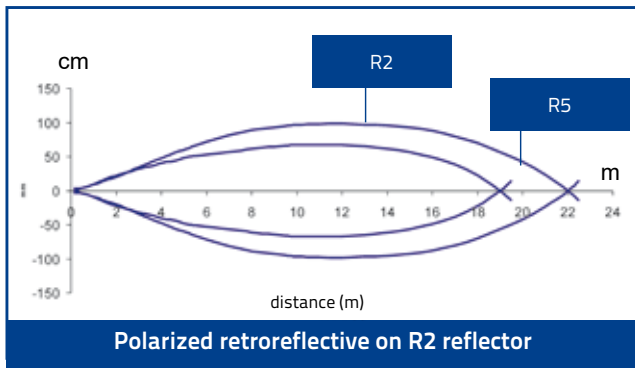
## DC MODELS



## M12 CONNECTOR (only DC models)



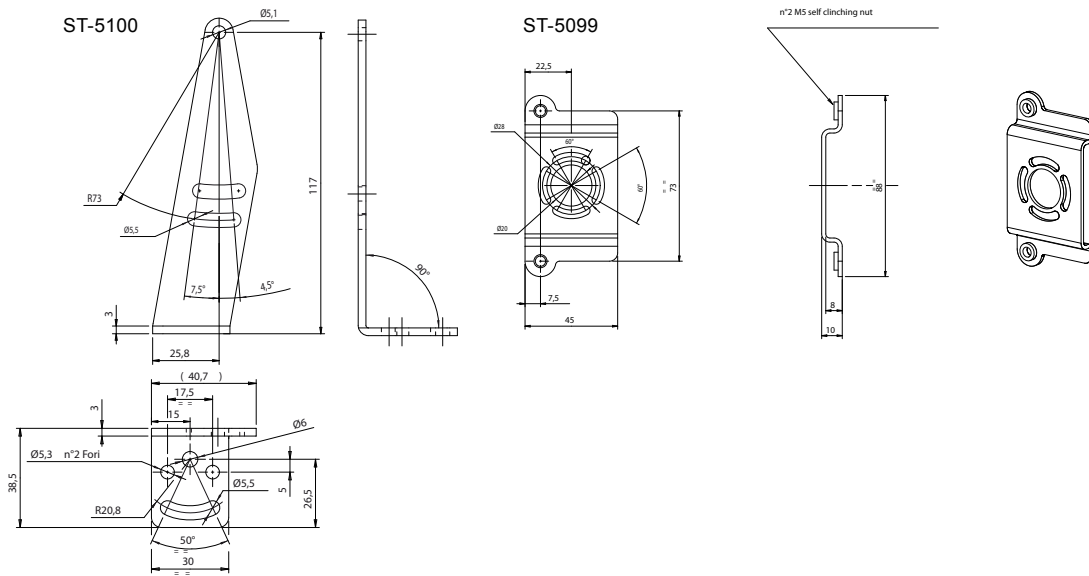
# DETECTION DIAGRAMS



# MODEL SELECTION AND ORDER INFORMATION

OPTIC FUNCTION	OUTPUT	CONNECTION	SETTING	MODEL	ORDER No.		
Polarized retroreflective	NPN/PNP	Vdc - Terminal block	Sensitivity and D/L trimmers	S300-PR-2-B01-OC	951451000		
			Timing, sensitivity and D/L trimmers	S300-PR-2-B06-OC	951451010		
		Vdc - M12 Connector	Sensitivity and D/L trimmers	S300-PR-5-B01-OC	951451020		
	Relay	Vac - Terminal block	Timing, sensitivity and D/L trimmers	S300-PR-5-B06-OC	951451030		
			Sensitivity and D/L trimmers	S300-PR-1-B01-RX	951451040		
			Timing, sensitivity and D/L trimmers	S300-PR-1-B06-RX	951451050		
Diffused proximity	NPN/PNP	Vdc - Terminal block	Timing, sensitivity and D/L trimmers; defogging function	S300-PR-1-B06-RX-M	951451060		
			Sensitivity and D/L trimmers	S300-PR-2-C01-OC	951451070		
		Vdc - M12 Connector	Timing, sensitivity and D/L trimmers	S300-PR-2-C06-OC	951451080		
	Relay	Vac - Terminal block	Sensitivity and D/L trimmers	S300-PR-5-C01-OC	951451090		
			Timing, sensitivity and D/L trimmers	S300-PR-5-C06-OC	951451100		
			Sensitivity and D/L trimmers	S300-PR-1-C01-RX	951451110		
Through beam receiver	NPN/PNP	Vdc - Terminal block	Timing, sensitivity and D/L trimmers	S300-PR-1-C06-RX	951451120		
			Timing, sensitivity and D/L trimmers; defogging function	S300-PR-1-C06-RX-M	951451130		
		Vdc - M12 Connector	Sensitivity and D/L trimmers	S300-PR-2-F01-OC	951451210		
	Relay	Vac - Terminal block	Timing, sensitivity and D/L trimmers	S300-PR-2-F06-OC	951451220		
			Sensitivity and D/L trimmers	S300-PR-5-F01-OC	951451230		
			Timing, sensitivity and D/L trimmers	S300-PR-5-F06-OC	951451240		
Through beam emitter	-	Vdc - Terminal block	Emission power regulation trimmer	S300-PR-1-F01-RX	951451250		
					Vdc - M12 Connector	S300-PR-1-F06-RX	951451260
		Vac - Terminal block		Timing, sensitivity and D/L trimmers; defogging function			S300-PR-1-F06-RX-M
					Vac - Terminal block	S300-PR-2-G00-EX	
		Vac - Terminal block		S300-PR-5-G00-EX			951451290
					Vac - Terminal block	S300-PR-1-G00-EX	951451300
Background suppression	NPN/PNP	Vdc - Terminal block	Defogging function	S300-PR-1-G00-EX-M			951451310
					Vdc - M12 Connector	S300-PR-2-M01-OC	951451140
		Relay		Vac - Terminal block			Timing, sensitivity and D/L trimmers
	Sensitivity and D/L trimmers				S300-PR-5-M01-OC	951451160	
	Timing, sensitivity and D/L trimmers				S300-PR-5-M06-OC	951451170	
	Relay	Vac - Terminal block		Timing, sensitivity and D/L trimmers	S300-PR-1-M01-RX	951451180	
Timing, sensitivity and D/L trimmers			S300-PR-1-M06-RX		951451190		
Timing, sensitivity and D/L trimmers; defogging function			S300-PR-1-M06-RX-M		951451200		

# ACCESSORIES



MODEL	DESCRIPTION	ORDER No.
ST-5099	mounting BRACKET	95ACC2830
ST-5100	mounting BRACKET	95ACC2840

# 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
	4-pole, P.U.R.	10 m	CS-A2-02-G-10	95A251260
		2 m	CS-A2-02-R-02	95A251550
		5 m	CS-A2-02-R-05	95A251570
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
Radial M12 Connector	4-pole, black	Connector- not cabled	CS-A1-02-B-NC	G5085002
		Connector- not cabled	CS-A2-02-B-NC	G5085003

