

S8 STAINLESS STEEL

Datalogic's **S8 Contrast** and **Polarized** for transparent detection models in stainless steel housing complete the S8 family and bring out the ONE for ALL concept.

They have been designed for frequent wash downs with a corrosion-resistant AISI316L stainless steel case rated IP69K. They are a suitable solutions to discriminate fine color differences at very high speeds with resisting typical detection difficulties associated with object movement or extremely transparent object detection especially for the FOOD and PHAMRA Markets. One for ALL concept means one shape and one fixing holes for all the applications allowing to the OEMs to reduce and standardize the components used given a real advantage for the development of the automatic machines.



DIVERSEY ECOLAB

HIGHLIGHTS

W model

- Discriminates fine color differences with RGB emission
- High speed detection at 50 μ s
- Coaxial optical system design provides stable detection of moving objects to eliminate false detections
- IP69K degree of protection with a AISI316L stainless steel housing resists the effects of detergents and disinfectants to withstand washing with high-temperature, high-pressure water

T model

- Discriminates materials extremely transparent like fine plastic films, glass or PET bottles
- Coaxial optical system design provides stable detection of moving objects to eliminate false detections
- Auto-adaptive function to improve the reliability of the detection
- IP69K degree of protection with a AISI316L stainless steel housing resists the effects of detergents and disinfectants to withstand washing with high-temperature, high-pressure water

APPLICATIONS

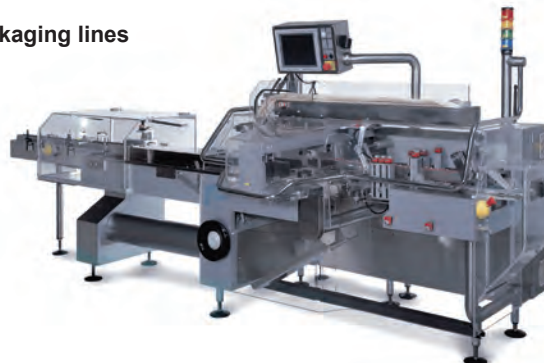
Food & Pharma



Beverage & Bottling



Packaging lines



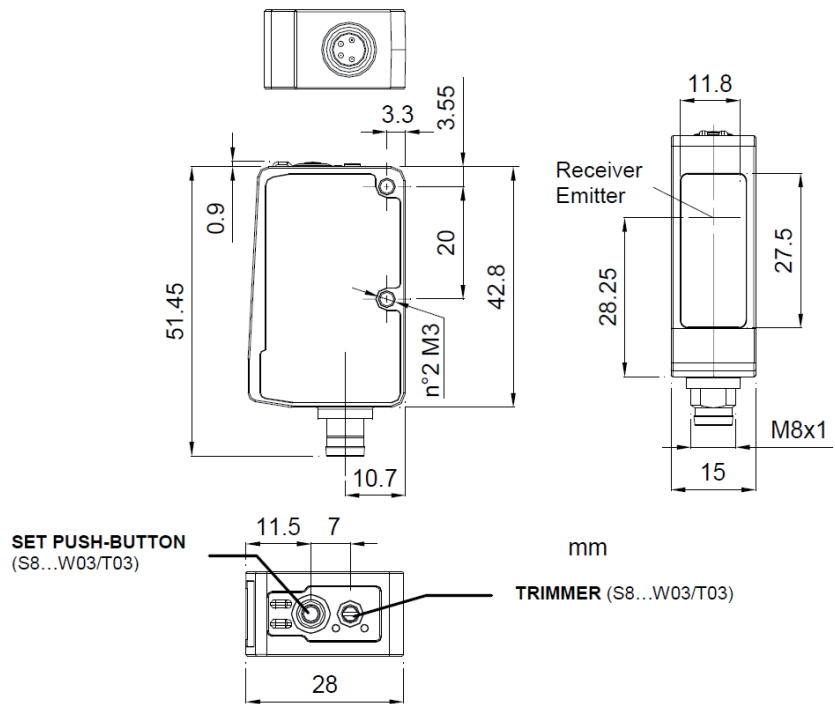
KEYLOCK FUNCTION

The KEYLOCK function (keyboard lock) allows to deactivate the keyboard avoiding accidental changes in the sensor setting. If at sensor powering the REMOTE wire is connected to +Vdc for at least 1 s., the keyboard lock function is activated and the pushbuttons are no longer active. To deactivate the keyboard lock, the sensor must be turned off and repowered with the REMOTE wire not connected or connected to GND.

THRESHOLD AUTO-ADJUSTMENT FUNCTION

The sensor provides threshold auto-adjustment function. If received signal decreases for dirty optical lens or reflector, the sensor adjusts automatically the commutation threshold to avoid continuous cleaning of optical parts (after 1 minute of low signal). If received signal is too low to be adjusted from the sensor the output turns on and it is necessary to clean the optical parts.

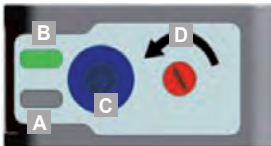
DIMENSIONS



INDICATORS AND SETTINGS

PUSH BUTTON VERSION

Delay On / Light On



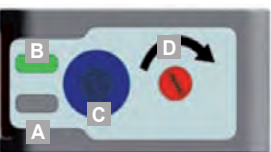
A Output status LED

B Ready LED

C SET push-button

D Delay trimmer (W)
Light/Dark trimmer (T)

Delay Off / Dark On



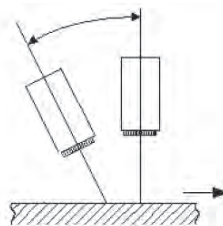
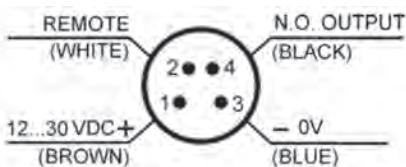
REMOTE VERSION



A Output status LED

B Ready LED

CONNECTIONS AND INSTALLATION



The sensor can be positioned by means of the two housing holes using two screws (M3x18 or longer, 0.8Nm maximum tightening torque) with washers. Various orientable fixing brackets to ease the sensor positioning are available (please refer to the accessories listed in the general catalogue). The operating distance is measured from the front surface of the sensor optics. S8W - Mark detection on a reflective surface is improved adjusting the beam direction to 5°... 20° from surface axis.

TECHNICAL DATA OF MODELS WITH LED EMISSION

TECHNICAL NOTES

¹ Average life of 100.000 h with TA = +25 °C

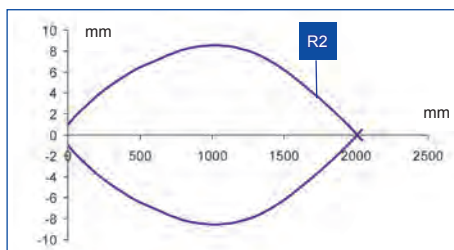
² A - reverse polarity protection

B - overload and short-circuit protection

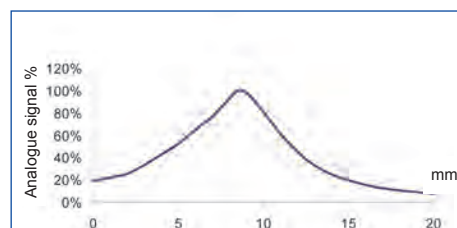
		S8-PR-3-T53-xx	S8-PR-5-T50-xx	S8-PR-5-W03-xx	S8-PR-3-W00-xx
Polarized RRX for transparent:	0 ... 2000 mm	•	•		
Constrast sensor operating distance:	9 ± 3 mm			•	•
Power supply:	12 ... 30 Vdc	•	•	•	•
Ripple:	≤ 2 Vpp	•	•	•	•
Consumption:	15 mA max.	•			
	30 mA max.		•	•	•
Light emission: ¹	red LED 660 nm	•	•		
	blue LED 465nm/green LED 520nm/red LED 630nm			•	•
Spot dimension:	3 x 1 mm			•	•
	refer to diagrams	•		•	
Setting:	SET push-button	•		•	
	remote by white wire		•		•
	monoturn delay selection trimmer			•	
	monoturn dark/light selection trimmer	•			
Indicators:	yellow OUTPUT LED	•	•	•	•
	green READY LED		•	•	•
Output type:	PNP or NPN, N.O./N.C.	•	•	•	•
Output current:	≤ 100 mA	•	•	•	•
Saturation voltage:	≤ 2 V	•	•	•	•
Response time:	50 µs			•	•
	250 µs	•	•		
Max. switching frequency:	10 kHz			•	•
	2 kHz	•	•		
Connection:	M8 4-pole connector	•	•	•	•
Mechanical protection:	IP67, IP69K	•	•	•	•
Protection devices:	A, B ²	•	•	•	•
Dielectric strength:	□ 1500 VAC 1 min. between electronics and housing	•	•	•	•
Insulating resistance:	>20 MΩ500 VDC between electronics and housing	•	•	•	•
Housing material:	INOX AISI 316L	•	•	•	•
Lens material:	window in PMMA	•	•	•	•
	lens in PC	•	•	•	•
Weight:	70 g. max.	•	•	•	•
Operating temperature:	-10 ... +55°C	•	•	•	•
Storage temperature:	-20 ... +70°C	•	•	•	•
Reference standard:	EN 60947-5-2	•	•	•	•



DETECTION DIAGRAMS



Coaxial polarized retroreflex for transparents - T53



Contrast sensor

MODEL SELECTION AND ORDER INFORMATION

MODEL	DESCRIPTION	SETTING	OUTPUT	ORDER N°
S8-MR-5-T53-PP	RRX INOX TRA PNP TEACH	Push button	PNP	950801300
S8-MR-5-T53-NN	RRX INOX TRA NPN TEACH	Push button	NPN	950801310
S8-MR-5-T50-PH	RRX INOX TRA PNP REMOTE	Remote wire	PNP	950801320
S8-MR-5-T50-NH	RRX INOX TRA NPN REMOTE	Remote wire	NPN	950801330
S8-MR-5-W03-PP	CONTRAST. INOX PNP TEACH	Push button	PNP	950801340
S8-MR-5-W03-NN	CONTRAST. INOX NPN TEACH	Push button	NPN	950801350
S8-MR-5-W00-PH	CONTRAST. INOX PNP REMOTE	Remote wire	PNP	950801360
S8-MR-5-W00-NH	CONTRAST. INOX NPN REMOTE	Remote wire	NPN	950801370

ACCESSORY SELECTION AND ORDER INFORMATION

MODEL	DESCRIPTION	ORDER N°
ST-5072	fixing bracket	95ACC1470



The company endeavours to continuously improve and renew its products; for this reason the technical data and contents of this catalogue may undergo variations without prior notice. For correct installation and use, the company can guarantee only the data indicated in the instruction manual supplied with the products.

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