

S2Z SERIES

The new **S2Z** Maxi series offers 4 models, with basic optic functions:

- **through beam**
- **polarized retroreflex**
- **diffuse proximity**
- **background suppression**

Versions with **continuous** and free-voltage **Vac.** Adjustable **timing versions** are also available.

SPDT relay and bipolar transistor NPN/PNP open collector outputs are also offered.

Terminal block connection simplifies and speeds-up installation. The **heavy-duty plastic housing** guarantees excellent resistance in the most severe working conditions.



HIGHLIGHTS

- IP67 mechanical protection
- Timing versions
- Terminal block connection
- Versions with continuous and multi-voltage power supply
- Anti-interference system
- Shock-resistant housing ideal for severe working conditions

APPLICATIONS

Conveyors



Automatic warehouses



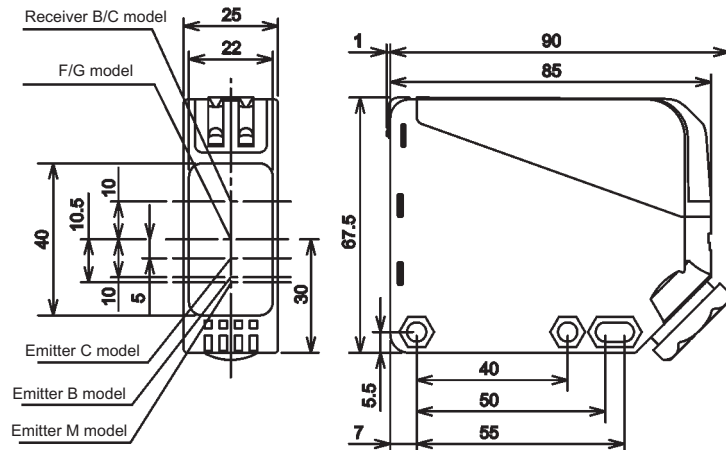
Automotive industry



SETTING

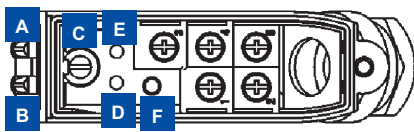
The **M model** presents a **multi-turn adjustment screw** for the adjustment of the background suppression distance through a mechanical variation of the optic triangulation angle. The **other models have a mono-turn electronic trimmer** that adjusts the sensitivity and the sensor operating distance. The operating distance increases, rotating the screws in a clockwise direction. The **output activation and deactivation delay time can be adjusted by a trimmer** that can vary from 0.1 to 5 sec. and the sensor functioning mode can be selected thanks to a **ten-position selector**.

DIMENSIONS



mm

INDICATORS

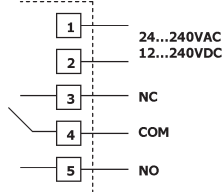


- A** OUTPUT LED (yellow)
- B** STABILITY LED (green)
- C** Adjustment screw (only M model)
- D** Sensitivity trimmer (B/C/F/G model)
- E** Timing control
- F** Operating mode selector

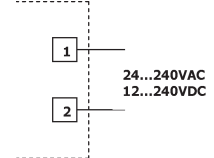
CONNECTIONS

MULTI-VOLTAGE MODELS

S2Z...B/C/F/M

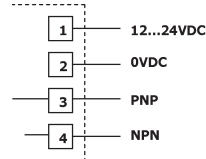


S2Z...G

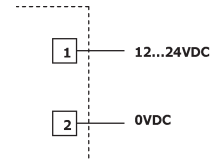


CONTINUOUS MODELS

S2Z...B/C/F/M



S2Z...G



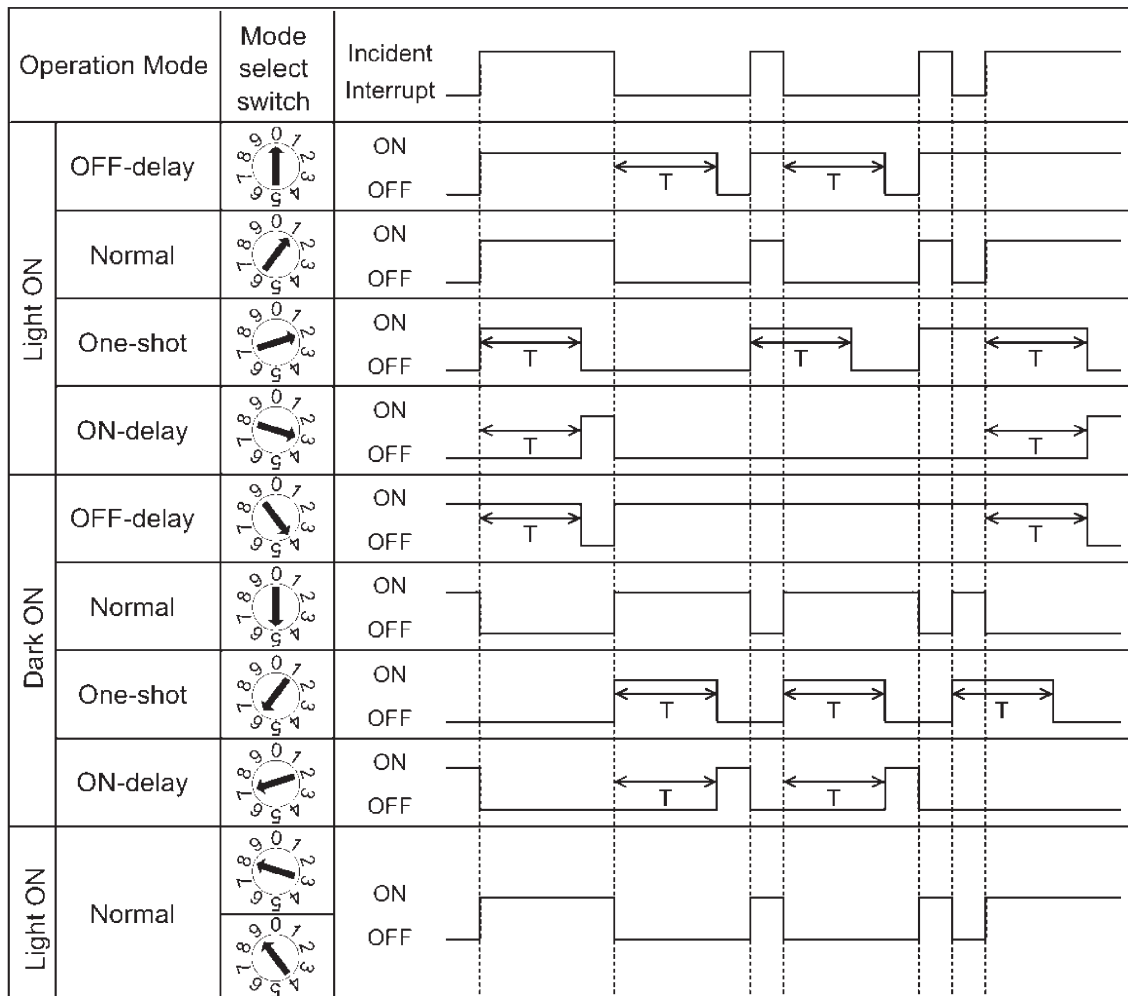
TECHNICAL DATA

COMMON SPECIFICATIONS	S2Z-F/G	S2Z-B	S2Z-C	S2Z-M
Emission type:	IR LED	red LED	IR LED	
Operating distances (typical values):	50m	0.2...7m	1m	0.2...2m
Setting:	Mono-turn sensitivity trimmer			Multi-turn distance adjustment screw
White/Black difference (90% / 4%)				< 35%
Hysteresis on 90% white:				≤ 20%
Indicators:	OUTPUT LED (yellow) STABILITY LED (green)			OUTPUT LED (yellow)
Operating temperature:	-25...50°C			
Storage temperature:	-40...70°C			
Dielectric strength:	500Vac 1 min between electronics and housing			
Insulating resistance:	>20MΩ 500 Vdc between electronics and housing			
Ambient light rejection:	according to EN 60947-5-2			
Vibrations:	0.5mm width, 10 ... 55Hz frequency, for each axis (EN60068-2-6)			
Shock resistance:	11ms (30G) 6 shocks for each axis (EN60068-2-27)			
Housing material:	PBT			
Lens material:	PC/PET	PMMA	PC/PET	PMMA/PC
Mechanical protection:	IP67 (IEC / EN60529) / NEMA TYPE 1 (For UL / c-UL)			
Connections:	Terminal block (recommended cable diameter between 8 and 10 mm)			
MULTI-VOLTAGE MODELS	S2Z-F/G	S2Z-B	S2Z-C	S2Z-M
Power supply:	24...240Vac / 12...240Vdc			
Ripple:	10% max			
Consumption (output current excluded):	3VA max (G model)	3VA max		
	3VA max (F model)			
Outputs:	SPDT electromagnetic relay: 250Vac, 30Vdc			
Output current:	3A (resistance load)			
Response time:	20ms max			
Switching frequency:	25Hz			
Weight:	115g (G mod) 130g (F mod)		130g	
CONTINUOUS MODELS	S2Z-F/G	S2Z-B	S2Z-C	S2Z-M
Power supply:	12...24Vdc			
Ripple:	10% max			
Consumption (output current excluded):	20mA max (G model)	30mA max.		
	25mA max (F model)			
Outputs:	PNP and NPN open collector			
Output current:	100 mA (resistance load)			
Output saturation voltage:	2.4V max			
Response time:	1ms max			
Switching frequency:	500Hz			
Weight:	105g (G mod) 110g (F mod)		110g	

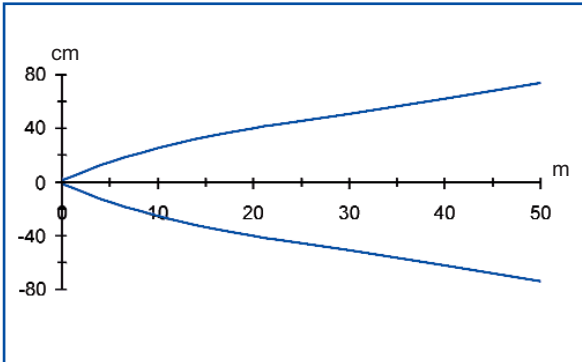
TIMING FUNCTION DIAGRAM

Four selectable **timing functions**: one shot, ON delay, OFF delay and normal mode. The functions can be **adjusted**, using a **trimmer**, from 0.1 to 5 seconds.

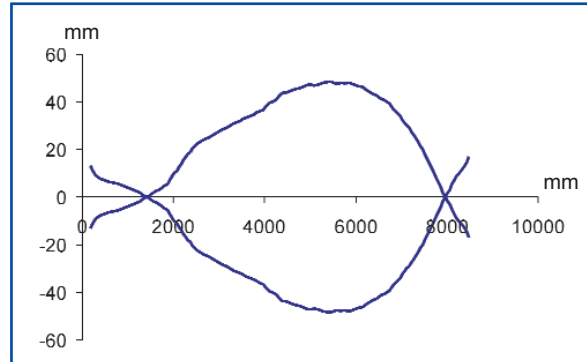
The timing functions can be particularly useful in applications where the output signal pulse has to be modified.



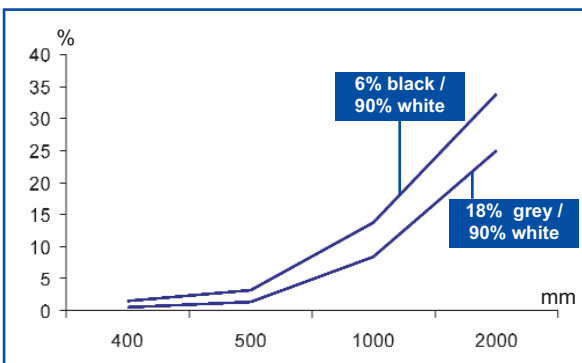
DETECTION DIAGRAMS



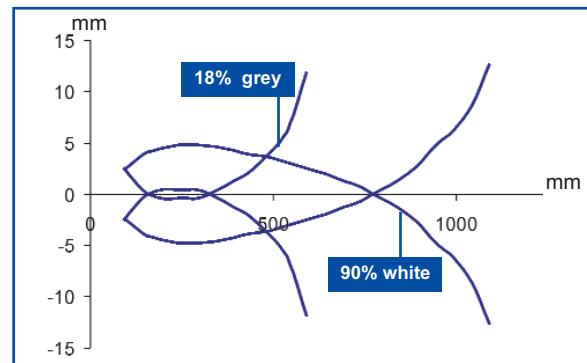
Through beam



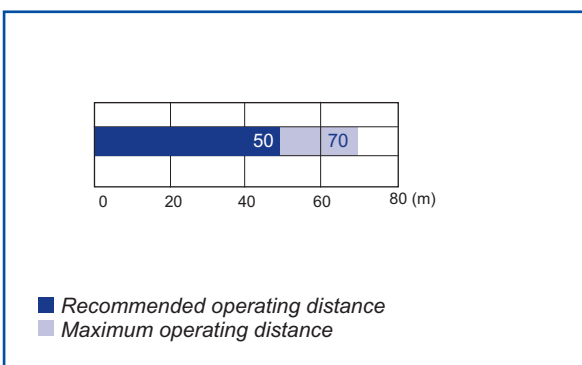
Polarized retroreflex on R2 reflector



Background suppression

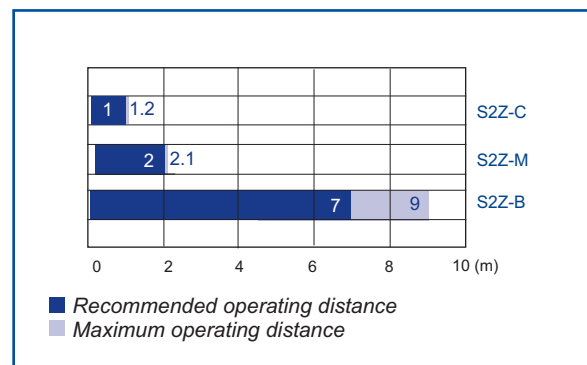


Diffuse proximity



■ Recommended operating distance
 ■ Maximum operating distance

Through beam



■ Recommended operating distance
 ■ Maximum operating distance

Other models

MODEL SELECTION AND ORDER INFORMATION

MODEL	POWER SUPPLY	DELAY	OUTPUT	N° ORDER
S2Z-PA-1-B01-RX	Vac/Vdc		Relay	95B051000
S2Z-PA-1-B06-RX	Vac/Vdc	•	Relay	95B051010
S2Z-PA-5-B01-OX	Vdc		PNP/NPN transistor	95B051020
S2Z-PA-5-B06-OX	Vdc	•	PNP/NPN transistor	95B051030
S2Z-PA-1-M01-RX	Vac/Vdc		Relay	95B051040
S2Z-PA-1-M06-RX	Vac/Vdc	•	Relay	95B051050
S2Z-PA-5-M01-OX	Vdc		PNP/NPN transistor	95B051060
S2Z-PA-5-M06-OX	Vdc	•	PNP/NPN transistor	95B051070
S2Z-PA-1-C01-RX	Vac/Vdc		Relay	95B051080
S2Z-PA-1-C06-RX	Vac/Vdc	•	Relay	95B051090
S2Z-PA-5-C01-OX	Vdc		PNP/NPN transistor	95B051100
S2Z-PA-5-C06-OX	Vdc	•	PNP/NPN transistor	95B051110
S2Z-PA-1-FG01-RX	Vac/Vdc		Relay	95B051130
S2Z-PA-1-FG06-R	Vac/Vdc	•	Relay	95B051140
S2Z-PA-5-FG01-OX	Vdc		PNP/NPN transistor	95B051160
S2Z-PA-5-FG06-OX	Vdc	•	PNP/NPN transistor	95B051170



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.