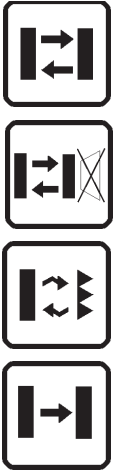


BASIC LINE OF MINIATURE PHOTOELECTRIC SENSORS IN FAR-EAST STANDARD



actual dimensions

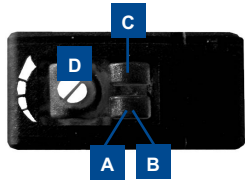
- *New 50-250 mm background suppression*
- *1 m proximity, 15 cm with narrow beam*
- *4 m polarised retroreflex*
- *15 m through beam*
- *Standard 3 wire output configuration*

S3Z SERIES

The high operating distances and cost-effective price, makes the **S3Z** series in the miniature format with dimensions and standard fixing affirmed in the market, in particular in Far-East.

Different models are available: 15 through beam, 4 m polarised retroreflex, 70 cm diffuse proximity and narrow beam for between 50 and 150 mm. Moreover, a new 5 to 25 cm background suppression model with multi-turn mechanical trimmer setting is available. Versions with NPN or PNP output, with dark or light operating mode and with cable or M8 connection are foreseen. The plastic housing is completely overprinted, guaranteeing maximum mechanical protection also in presence of frequent washing.

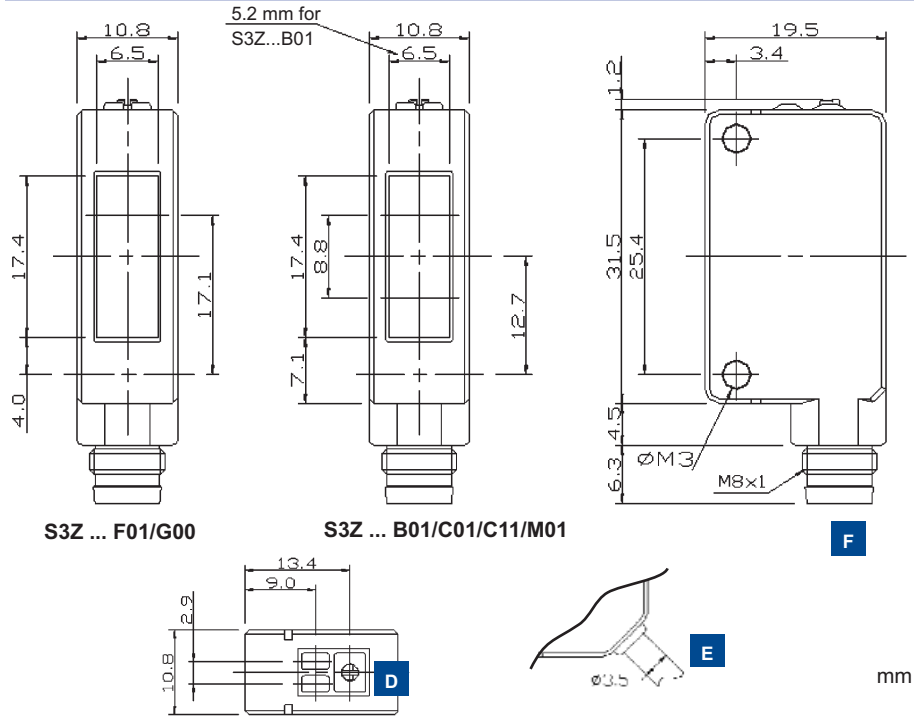
INDICATORS AND SETTINGS



- A** Output status LED
- B** Power on LED (S3Z...G00)
- C** Stability LED
- D** Sensitivity trimmer
- E** Cable output
- F** M8 connector output



DIMENSIONS

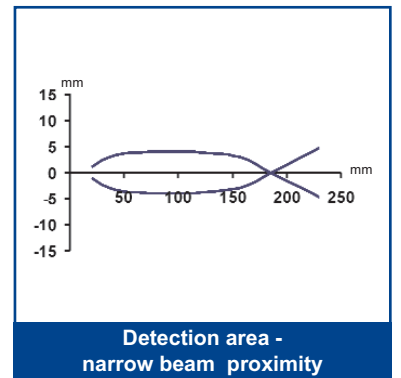
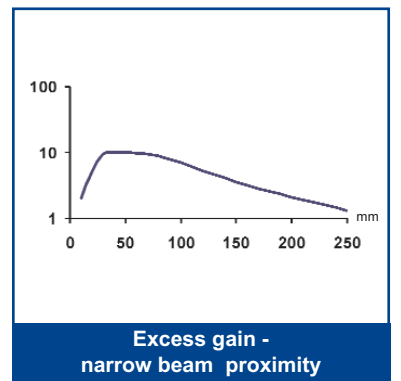
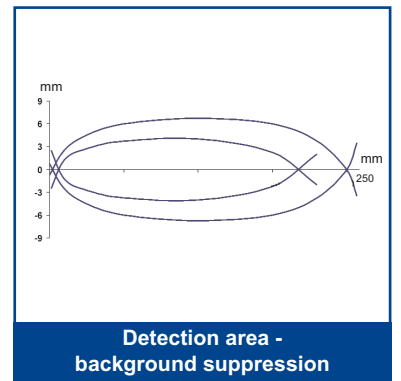
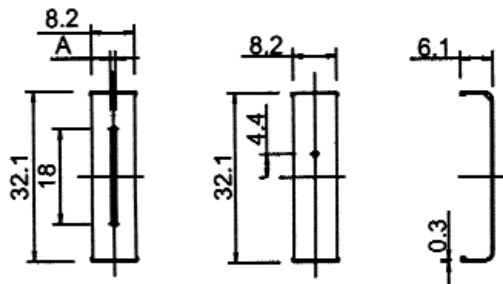
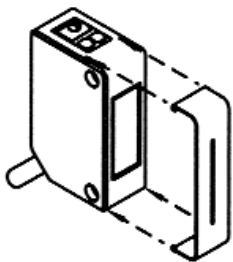


SLIT

Two different slit models, with rectangular or circular slot, can be easily mounted on the front side of the through beam sensors to reduce the emission beam. The resolution and the minimum object detectable can be improved with the slit positioned on the receiver (S3Z...F01). The installation of the two aligned sensor couples is eased by mounting the slit also on the emitter (S3Z...G00), avoiding reciprocal interference.

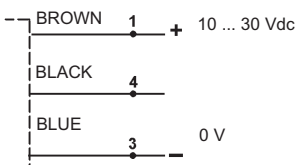
The slit reduces the operating distance as shown in the following table.

Slit		Operating distance (m)		Minimum object detectable (mm)	
Model	Width (mm)	Used on F01	Used on F01 and G00	Used on F01	Used on F01 and G00
S3Z-SLIT1	Ø 0.5	0.8	0.08	5	0.3
S3Z-SLIT2	Ø 1	1.5	0.3	5	0.6
S3Z-SLIT3	Ø 2	2.5	1.2	5	1.5
S3Z-SLIT4	0.5x18	2.5	1	7	0.5
S3Z-SLIT5	1x18	3.5	1.5	7	1
S3Z-SLIT6	2x18	6	3.5	7	2

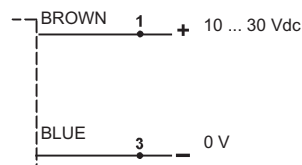


CONNECTIONS

S3Z...B01/C01/C11/F01/M01



S3Z...G00



M8 STECKER



TECHNICAL DATA

	S3Z-PR-2-B01	S3Z-PR-2-C01	S3Z-PR-2-C11	S3Z-PR-2-F01	S3Z-PR-2-G00	S3Z-PR-2-M01	S3Z-PR-5-B01	S3Z-PR-5-C01	S3Z-PR-5-F01	S3Z-PR-5-G00	S3Z-PR-5-M01
Narrow beam proximity operating distance:	50 ... 150 mm	●						●			
Diffuse proximity operating distance:	0 ... 70 cm		●					●			
Polarised retroreflex operating distance:	0.05 ... 4 m (on R5)	●					●				
Through beam operating distance:	0 ... 15 m			●					●	●	
Background suppression distance:	50 ... 250 mm					●					●
Power supply:	10 ... 30 Vdc ¹	●	●	●	●	●	●	●	●	●	●
Consumption:	30 mA max.	●	●	●	●	●	●	●	●	●	●
Light emission²:	red LED 665 nm	●	●	●	●	●	●	●	●	●	●
	infrared LED 870 nm		●	●				●		●	
Setting:	sensitivity trimmer	●	●	●	●	●	●	●	●	●	●
Indicators:	yellow OUTPUT LED	●	●	●	●	●	●	●	●	●	●
	green STABILITY LED	●	●	●	●	●	●	●	●	●	●
	green POWER ON LED			●				●			
Output type:	PNP or NPN (refer to table)	●	●	●	●	●	●	●	●	●	●
Operating mode:	dark or light (refer to table)	●	●	●	●	●	●	●	●	●	●
Saturation voltage:	≤ 2 V	●	●	●	●	●	●	●	●	●	●
Response time:	1 ms	●	●	●	●	●	●	●	●	●	●
Switching frequency:	500 Hz	●	●	●	●	●	●	●	●	●	●
Output current:	≤ 100 mA	●	●	●	●	●	●	●	●	●	●
Connection:	2 m cable, Ø 3.5 mm	●	●	●	●	●	●	●	●	●	●
	4-pole M8 connector						●	●	●	●	●
Mechanical protection:	IP67	●	●	●	●	●	●	●	●	●	●
Protection devices:	A, B ³	●	●	●	●	●	●	●	●	●	●
Housing material:	PC / PBT	●	●	●	●	●	●	●	●	●	●
Lens material:	PMMA	●					●				
	PC		●	●	●	●	●	●	●	●	●
Weight:	10 g						●	●	●	●	●
	50 g	●	●	●	●	●	●	●	●	●	●
Operating temperature:	-25 ... +55 °C	●	●	●	●	●	●	●	●	●	●
Storage temperature:	-25 ... +70 °C	●	●	●	●	●	●	●	●	●	●
Standard reference:	EN 60947-5-2	●	●	●	●	●	●	●	●	●	●



TECHNICAL NOTES

- ¹ Limit values
- ² Average life of 100.000 h with $T_A = +25$ °C
- ³ A - reverse polarity protection
B - overload and short-circuit protection (B01/C01/C11/F01 vers.)

SELECTION TABLE

narrow beam proximity		
S3Z-PR-2-C01-PL	95B010040	PNP - light
S3Z-PR-5-C01-PL	95B010050	PNP - light
S3Z-PR-2-C01-PD	95B010060	PNP - dark
S3Z-PR-5-C01-PD	95B010070	PNP - dark
S3Z-PR-2-C01-NL	95B010200	NPN - light
S3Z-PR-5-C01-NL	95B010210	NPN - light
S3Z-PR-2-C01-ND	95B010220	NPN - dark
S3Z-PR-5-C01-ND	95B010230	NPN - dark

diffuse proximity		
S3Z-PR-2-C11-PL	95B010000	PNP - light
S3Z-PR-5-C11-PL	95B010010	PNP - light
S3Z-PR-2-C11-PD	95B010020	PNP - dark
S3Z-PR-5-C11-PD	95B010030	PNP - dark
S3Z-PR-2-C11-NL	95B010160	NPN - light
S3Z-PR-5-C11-NL	95B010170	NPN - light
S3Z-PR-2-C11-ND	95B010180	NPN - dark
S3Z-PR-5-C11-ND	95B010190	NPN - dark

polarised retroreflex		
S3Z-PR-2-B01-PL	95B010080	PNP - light
S3Z-PR-5-B01-PL	95B010090	PNP - light
S3Z-PR-2-B01-PD	95B010100	PNP - dark
S3Z-PR-5-B01-PD	95B010110	PNP - dark
S3Z-PR-2-B01-NL	95B010240	NPN - light
S3Z-PR-5-B01-NL	95B010250	NPN - light
S3Z-PR-2-B01-ND	95B010260	NPN - dark
S3Z-PR-5-B01-ND	95B010270	NPN - dark

through beam		
S3Z-PR-2-FG01-PL	95B010120	PNP - light
S3Z-PR-5-FG01-PL	95B010130	PNP - light
S3Z-PR-2-FG01-PD	95B010140	PNP - dark
S3Z-PR-5-FG01-PD	95B010150	PNP - dark
S3Z-PR-2-FG01-NL	95B010280	NPN - light
S3Z-PR-5-FG01-NL	95B010290	NPN - light
S3Z-PR-2-FG01-ND	95B010300	NPN - dark
S3Z-PR-5-FG01-ND	95B010310	NPN - dark

background suppression		
S3Z-PR-2-M01-PL	95B010330	PNP - light
S3Z-PR-5-M01-PL	95B010350	PNP - light
S3Z-PR-2-M01-NL	95B010320	NPN - light
S3Z-PR-5-M01-NL	95B010340	NPN - light

DETECTION DIAGRAMS

