



# S5 / SL5 ST

## M18 TUBULAR SINGLE BEAM INFRARED AND LASER SAFETY SENSORS



Photoelectric tubular M18 safety sensor to be used in combination with safety units SG-BWS

- Emitter-receiver photocells with test input
- Visible red class 1 laser emission (SL5) or infrared LED emission (S5)

- Type 2 and Type 4 models
- Plastic M18 tubular format
- Up to 40m operating distance
- Standard M12 connectors



## CODE DESCRIPTION

S5 - 5 - G8-62 - SG - ST2

series	S5	M18 Photoelectric infrared sensor				
	SL5	M18 Laser infrared sensor				
supply type	5	10...30 Vdc				
	G8-62	Infrared emitter				
function	F8-92	Infrared receiver				
	G-82	Laser emitter				
	F-92	Laser receiver				
safety connectivity	SG	to be used with SG-BWS safety unit				
type	ST2	type 2				
	ST4	type 4				

# TECHNICAL SPECIFICATIONS

S5 /  
SL5 ST

SAFETY SENSORS

S5-5-\*-\*8-\*\*-ST\*



GENERAL DATA	
Operating principle	Emitter, Receiver
Control units to be used	SG-BWS-T4 Series
DETECTION CAPABILITIES	
Nominal sensing distance	0 ... 8 m
Controlled height	Single-beam
EMISSION DATA	
Emission	LED Infrared
Effective beam angle	$\leq 2.5^\circ$ (S5-5-*8-**-SG-ST4), $\leq 5^\circ$ (S5-5-*8-**-SG-ST2)
SAFETY PARAMETERS	
Type	2 (S5-5-*8-*2-SG-ST2), 4 (S5-5-*8-*2-SG-ST4)
INPUT/OUTPUT	
Response time	1 ms
Output type	PNP
Output function	To be connected to SG-BWS-T4 Safety Control Unit Series
HMI/UI	
LED indicators	Green (Power ON)
ELECTRICAL DATA	
Supply voltage	24 Vdc $\pm 15\%$
Maximum No-load absorption	30mA
Maximum DC load current	100 mA
Insulation resistance	$>20 \text{ M}\Omega$ 500 Vdc, between electronics and housing
Ground resistivity	500 Vac 1 min., between electronics and housing
MECHANICAL DATA	
Dimensions	M18x1 / L=73.5 mm
Housing material	PBT / PMMA
Active part material	PMMA
CERTIFICATIONS	
Shocks	16 ms (10 G) 1,000 shocks per axis (EN 60068-2-29)
Vibrations	Width 0.35 mm, frequency 10 ... 55Hz; 20 sweep per axis, 1 octave/min (EN 60068-2-6)
ENVIRONMENTAL DATA	
Operating Temperature	-25 ... 55 °C (Without freeze)
Mechanical Protection	IP67
Storage temperature max.	-25 ... 70 °C
Shocks and vibrations	IEC60068-2-6
Ambient light immunity	according to EN 60947-5-2 : 2020

## TECHNICAL SPECIFICATIONS

		SL5-5-**-SG-ST*	
			
<b>GENERAL DATA</b>			
Operating principle	Emitter, Receiver		
Control units to be used	SG-BWS-T4 Series		
<b>DETECTION CAPABILITIES</b>			
Nominal sensing distance	0 ... 40 m		
Controlled height	Single-beam		
<b>EMISSION DATA</b>			
Emission	LASER Red		
Effective beam angle	$\leq \pm 2.5^\circ$ (SL5-5-**-SG-ST4)		
<b>SAFETY PARAMETERS</b>			
Type	4 (SL5-5-**-2-SG-ST4)		
<b>INPUT/OUTPUT</b>			
Response time	1 ms		
Output type	PNP		
Output function	To be connected to SG-BWS-T4 Safety Control Unit Series		
<b>HMI/UI</b>			
LED indicators	Green (Power ON)		
<b>ELECTRICAL DATA</b>			
Supply voltage	24 Vdc $\pm 15\%$		
Maximum No-load absorption	35mA		
Maximum DC load current	100 mA		
Insulation resistance	>20 M $\Omega$ 500 Vdc, between electronics and housing		
Ground resistivity	500 Vac 1 min., between electronics and housing		
<b>MECHANICAL DATA</b>			
Dimensions	M18x1 / L=86 mm		
Housing material	ABS / PMMA		
Active part material	PMMA		
<b>CERTIFICATIONS</b>			
Shocks	16 ms (10 G) 1,000 shocks per axis (EN 60068-2-29)		
Vibrations	Width 0.35 mm, frequency 10 ... 55Hz; 20 sweep per axis, 1 octave/min (EN 60068-2-6)		
<b>ENVIRONMENTAL DATA</b>			
Operating Temperature	-10 ... 50 °C (Without freeze)		
Mechanical Protection	IP67		
Storage temperature max.	-25 ... 70 °C		
Shocks and vibrations	IEC60068-2-6		
Ambient light immunity	according to EN 60947-5-2 : 2020		

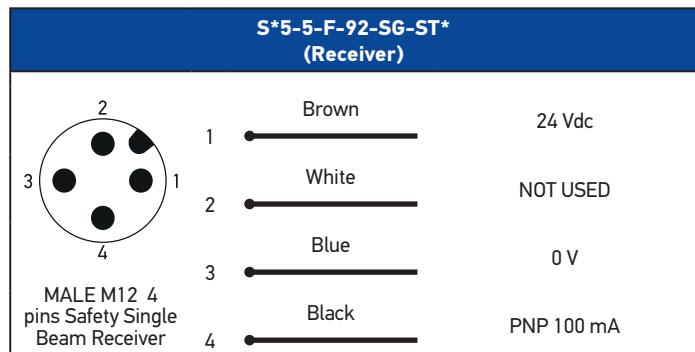
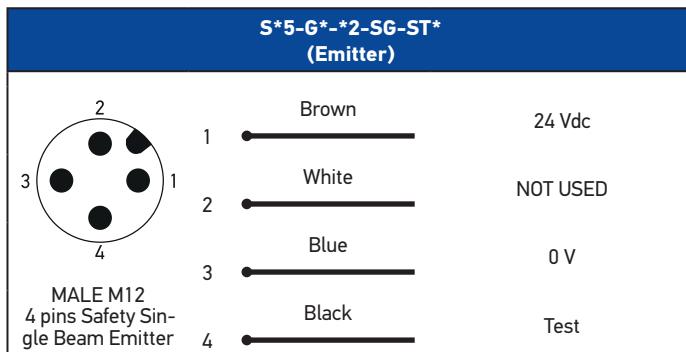
## AVAILABLE MODELS

Emission	Type	e_prodotto_distanza_di_rilevazione_nomina	Housing material	Operating principle	Model
LED Infrared	2	0 ... 8 m	PBT / PMMA	Emitter	<b>S5-5-G8-62-SG-ST2</b> (952051870)
n/a				Receiver	<b>S5-5-F8-92-SG-ST2</b> (952051890)
LED Infrared	4	0 ... 40 m	ABS / PMMA	Emitter	<b>S5-5-G8-62-SG-ST4</b> (952051910)
n/a				Receiver	<b>S5-5-F8-92-SG-ST4</b> (952051930)
LASER Red				Emitter	<b>SL5-5-G-82-SG-ST4</b> (952501160)
n/a				Receiver	<b>SL5-5-F-92-SG-ST4</b> (952501170)

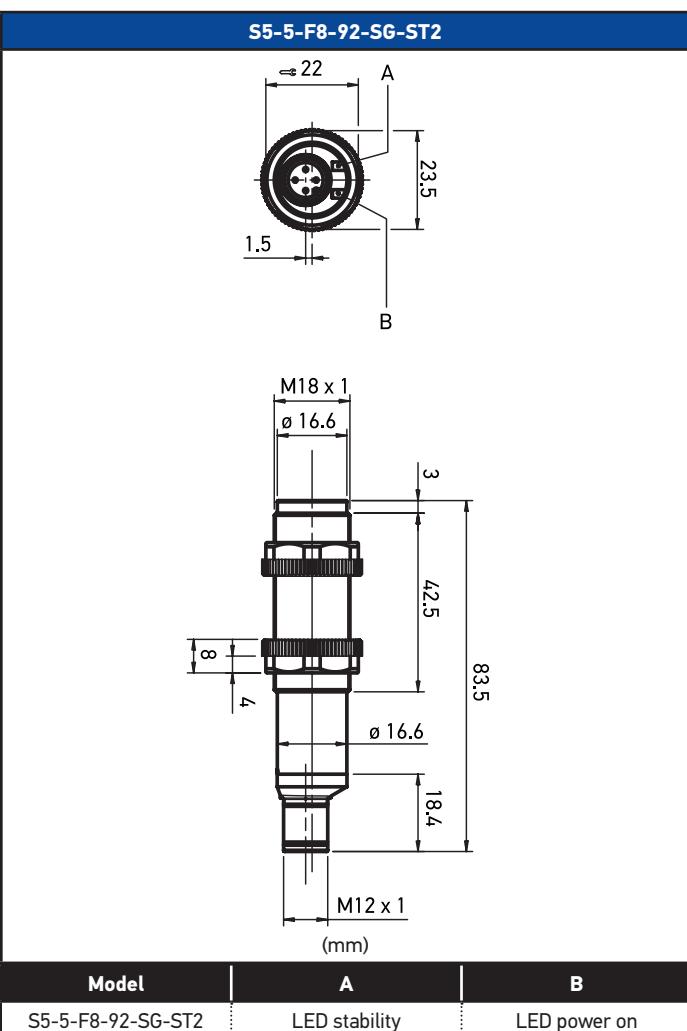
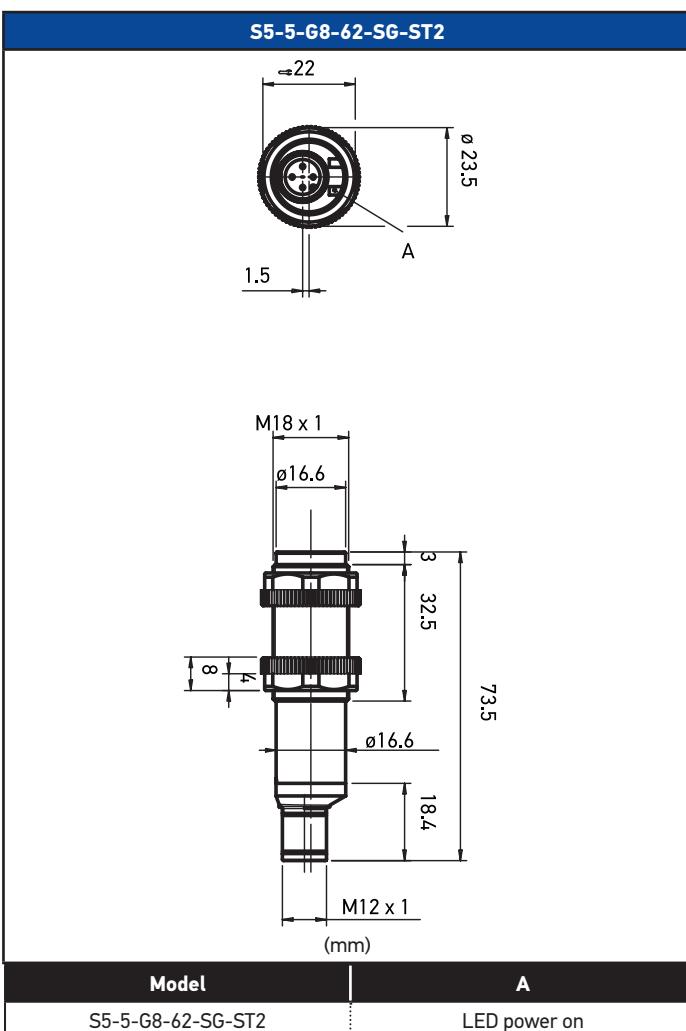
# CONNECTIONS

## S5 / SL5 ST

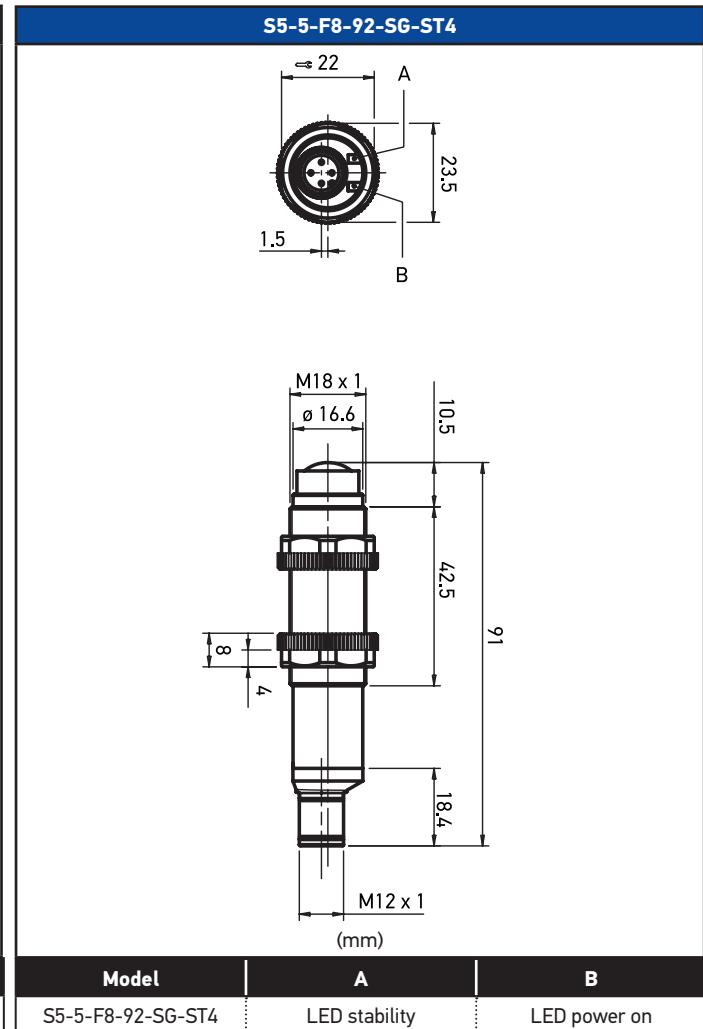
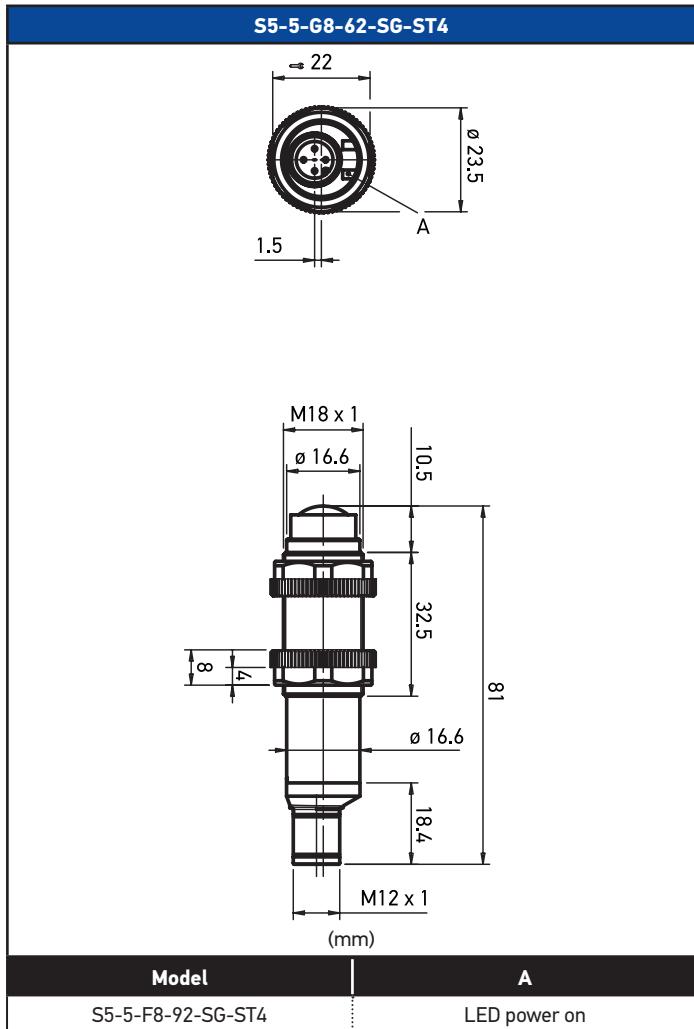
### SAFETY SENSORS



## MECHANICAL DRAWINGS



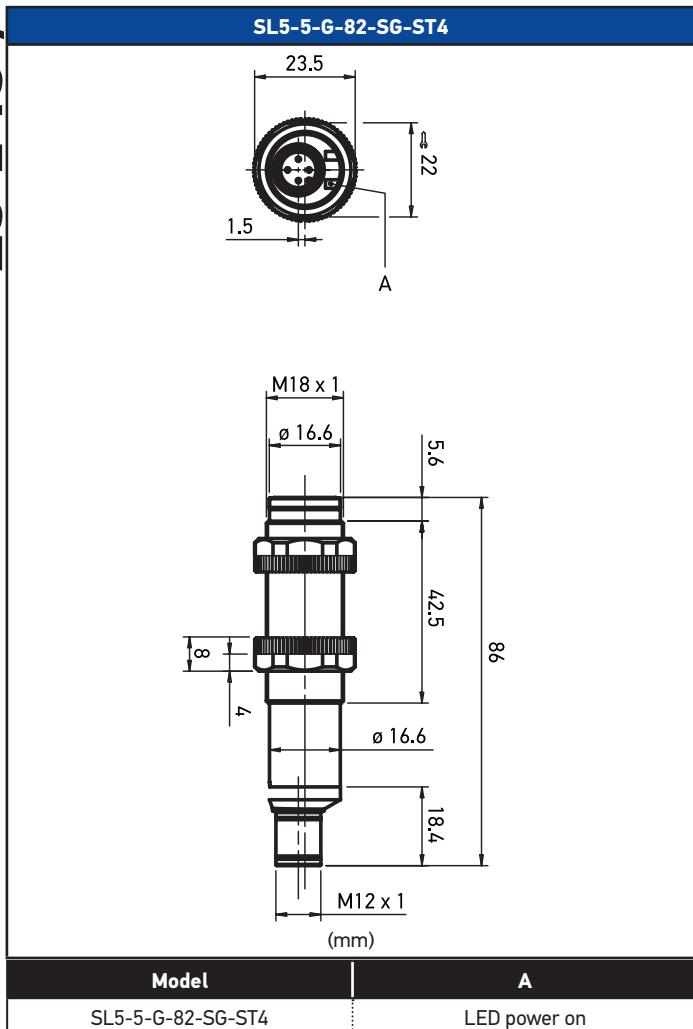
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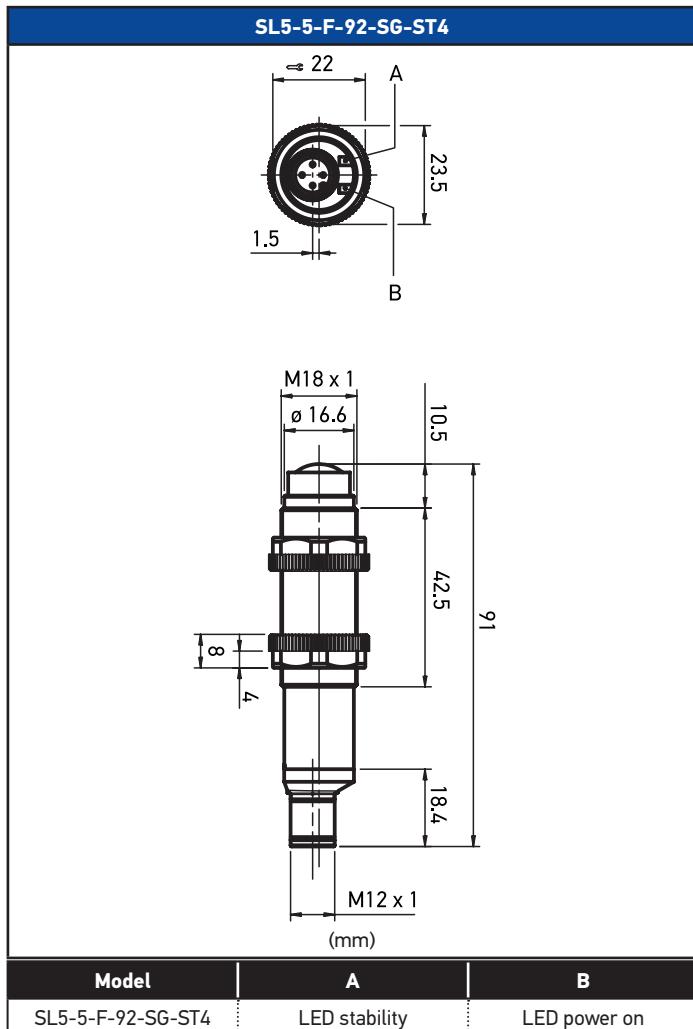
# MECHANICAL DRAWINGS

**S5 / SL5 ST**

SAFETY SENSORS



Model	A
SL5-5-G-82-SG-ST4	LED power on



Model	A	B
SL5-5-F-92-SG-ST4	LED stability	LED power on

## ACCESSORIES TO BE ORDERED SEPARATELY

	Model	Description	Article code
Cables	CS-A1-02-U-03	Cable M12 4 poles axial female unshielded 3m UL 2464	95ASE1120
	CS-A1-02-U-05	Cable M12 4 poles axial female unshielded 5m UL 2464	95ASE1130
	CS-A1-02-U-10	Cable M12 4 poles axial female unshielded 10m UL 2464	95ASE1140
	CS-A1-02-U-15	Cable M12 4 poles axial female unshielded 15m UL 2464	95ASE1150
	CS-A1-02-U-25	Cable M12 4 poles axial female unshielded 25m UL 2464	95ASE1160
Mounting brackets	SP-40	SP-40 = Tubular mounting bracket	95ACC1370
	ST 18-C	Bracket M18 90°	ST 18-C
	MICRO-18	MICRO-18 = M18 support with micrometric regulation for tubular M18 sensors	95ACC1380
	SWING-18	SWING-18 = adjustable support for M18 tubular sensors	895000006

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