DATASENSING
easing automation challenges

M18 IP67 WEBSITE

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

CE UKCA cULus

SAFETY TYPE 2 SAFETY TYPE 4

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
function	**G8-62**	Infrared emitter
	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

	S5-5-*-*8-**-ST*
	SAFETY TYPE 2 / SAFETY TYPE 4
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	≤ ±2.5 ° (S5-5-*8-**-SG-ST4), ≤ ±5 ° (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 ±15%
Maximum No-load absorption	30mA
Maximum DC load current	100 mA
Insulation resistance	>20 MΩ 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, 1octave/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

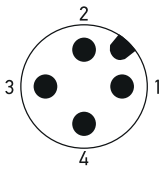
	SL5-5-*-**-SG-ST*
	 
GENERAL DATA	
Operating principle	Emitter, Receiver
Control units to be used	SG-BWS-T4 Series
DETECTION CAPABILITIES	
Nominal sensing distance	0 ... 40 m
Controlled height	Single-beam
EMISSION DATA	
Emission	LASER Red
Effective beam angle	≤ ±2.5 ° (SL5-5-*-**-SG-ST4)
SAFETY PARAMETERS	
Type	4 (SL5-5-*-*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 ±15%
Maximum No-load absorption	35mA
Maximum DC load current	100 mA
Insulation resistance	>20 MΩ 500 Vdc, between electronics and housing
Ground resistivity	500 Vac 1 min., between electronics and housing
MECHANICAL DATA	
Dimensions	M18x1 / L=86 mm
Housing material	ABS / 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, 1octave/min (EN 60068-2-6)
ENVIRONMENTAL DATA	
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_nominale	Housing material	Operating principle	Model
LED Infrared	2	0 ... 8 m	PBT / PMMA	Emitter	**S5-5-G8-62-SG-ST2** (952051870)
n/a				Receiver	**S5-5-F8-92-SG-ST2** (952051890)
LED Infrared	4			Emitter	**S5-5-G8-62-SG-ST4** (952051910)
n/a				Receiver	**S5-5-F8-92-SG-ST4** (952051930)
LASER Red		0 ... 40 m	ABS / PMMA	Emitter	**SL5-5-G-82-SG-ST4** (952501160)
n/a				Receiver	**SL5-5-F-92-SG-ST4** (952501170)

CONNECTIONS

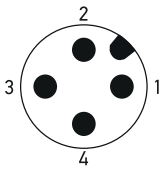
S*5-G*-*2-SG-ST*
(Emitter)



MALE M12
4 pins Safety Single Beam Emitter

1	Brown	24 Vdc
2	White	NOT USED
3	Blue	0 V
4	Black	Test

S*5-5-F-92-SG-ST*
(Receiver)

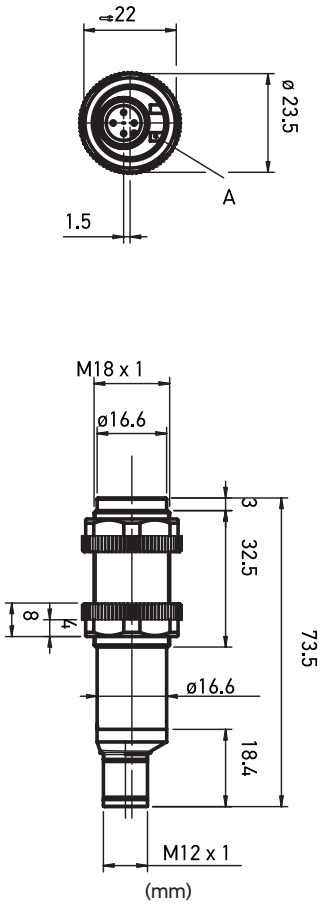


MALE M12 4 pins Safety Single Beam Receiver

1	Brown	24 Vdc
2	White	NOT USED
3	Blue	0 V
4	Black	PNP 100 mA

MECHANICAL DRAWINGS

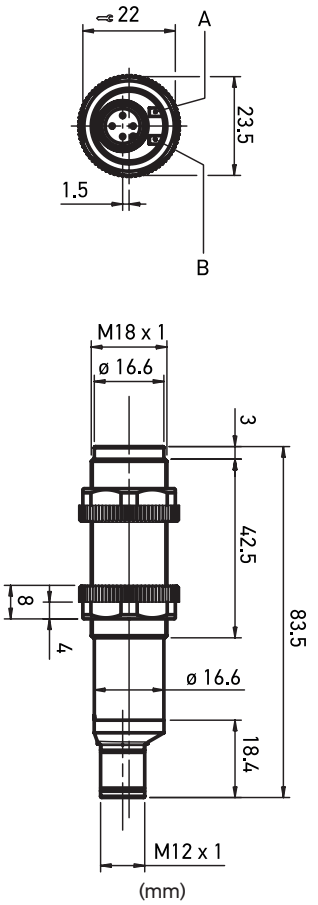
S5-5-G8-62-SG-ST2



(mm)

Model	A
S5-5-G8-62-SG-ST2	LED power on

S5-5-F8-92-SG-ST2

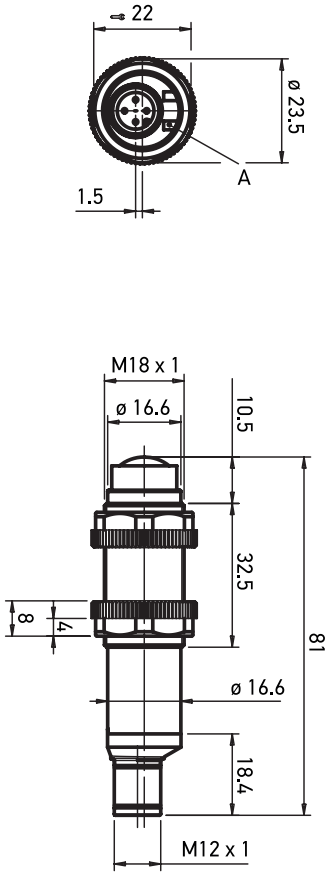


(mm)

Model	A	B
S5-5-F8-92-SG-ST2	LED stability	LED power on

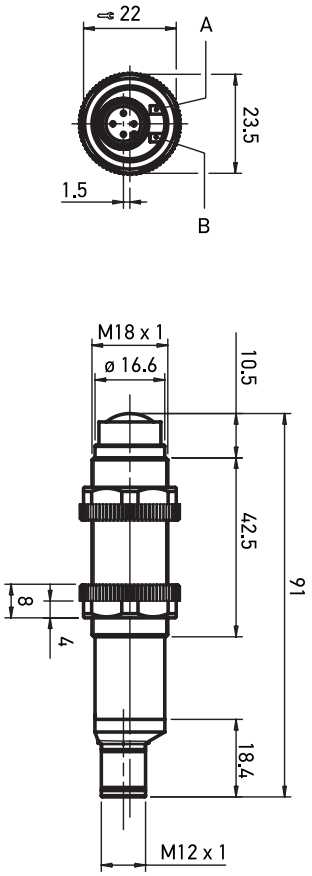
MECHANICAL DRAWINGS

S5-5-G8-62-SG-ST4



Model	A
S5-5-F8-92-SG-ST4	LED power on

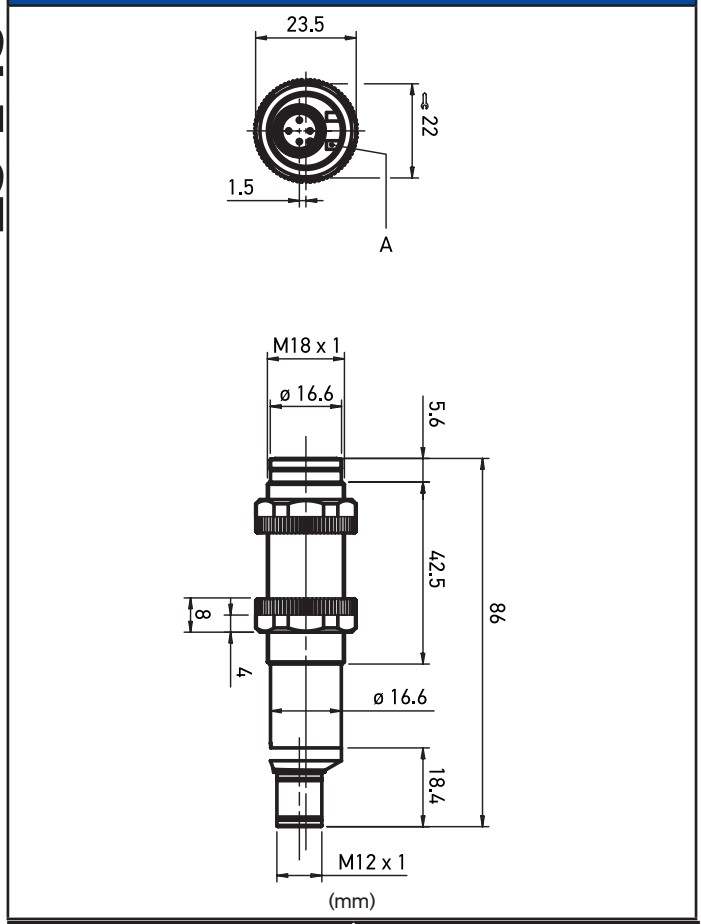
S5-5-F8-92-SG-ST4



Model	A	B
S5-5-F8-92-SG-ST4	LED stability	LED power on

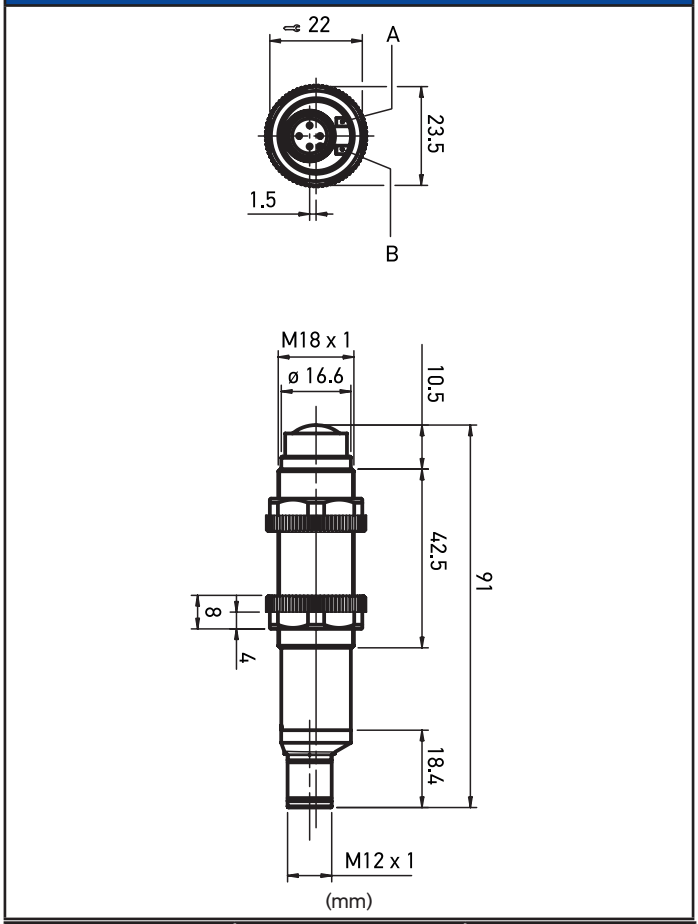
MECHANICAL DRAWINGS

SL5-5-G-82-SG-ST4



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

SL5-5-F-92-SG-ST4



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 = Tubolar 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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