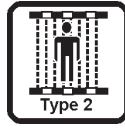


Type 2 SG2 Series (Basic & Extended Models)

Hand Protection



Presence Protection



Type 2 SG2 features:

- Integrated light curtain for Hand or Presence Protection
- Operating distance up to 19m
- Sensing field heights from 150 to 1800mm
- Compact 32 x 37mm profile
- Sturdy profile and rotating brackets
- Test/Restart, Auto/Manual Restart, EDM, Anti-interference
- User interface with display
- Alignment function

The SG2 Type 2 series offers two models, the SG2 basic and the SG2 extended. Available functions include Test/Restart, EDM and Anti-interference. With very fast response times, the SG2 series can be installed right next to a dangerous area, improving productivity. The adjustable mounting brackets make installation and the alignment of emitting and receiving units easy, even at long distances and in applications that use mirrors.



Part Numbers

Part Number	Protection Type	Resolution	Features
SG2-30-□-00-X	Hand 		Basic Model - Test/Reset
SG2-30-□-00-E-C			Extended Model - Test/Reset, Auto/Manual Restart, EDM
SG2-50-□-00-X	Presence 		Basic Model - Test/Reset
SG2-50-□-00-E-C			Extended Model - Test/Reset, Auto/Manual Restart, EDM
SG2-90-□-00-X			Basic Model - Test/Reset
SG2-90-□-00-E-C			Extended Model - Test/Reset, Auto/Manual Restart, EDM

Sensing Field Height Code







Sensing Field Height	Code
150mm ¹	015 ¹
300mm	030
450mm	045
600mm	060
750mm	075
900mm	090
1050mm	105
1200mm	120
1350mm	135
1500mm	150
1650mm	165
1800mm	180

In place of □ enter the Height code. See table on the right.




1. Not applicable to SG2 Presence Series

Accessories


M12 Unshielded Axial Connector Cable

Item	# of Poles	Used For	Cable Length	Part Number
	4	 SG4 & SG2 Emitters	3m	CS-A1-02-U-03
			5m	CS-A1-02-U-05
			10m	CS-A1-02-U-10
			15m	CS-A1-02-U-15
			25m	CS-A1-02-U-25
 SG2 Basic Model Receivers	5	 SG2 Basic Model Receivers	3m	CS-A1-03-U-03
			5m	CS-A1-03-U-05
			10m	CS-A1-03-U-10
			15m	CS-A1-03-U-15
 SG4 & SG2 Extended Model Receivers	8	 SG4 & SG2 Extended Model Receivers	3m	CS-A1-06-U-03
			5m	CS-A1-06-U-05
			10m	CS-A1-06-U-10
			15m	CS-A1-06-U-15
			25m	CS-A1-06-U-25

Mounting Brackets

Item	Description	Part Number
	Angled mounting brackets (4 pc kit)	ST-KSTD
	Anti-vibration supports (4 pc kit)	ST-K4AV
	Anti-vibration supports (6 pc kit)	ST-K6AV
	Top-Bottom adjustable mounting brackets (4 pc kit)	ST-K4ROT

Laser Pointer

Item	Description	Part Number
	Laser pointer used to aid in aligning safety light curtains.	SG-LP

Overview

XW Series E-Stops

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AS-Interface Safety at Work

Specifications

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AS-Interface Safety at Work

SG2 - Hand Series	SG2 - Presence Series
	

Electrical	Power supply (Vdd)	24V DC ± 20%	
	Power (TX)	2.5W max	
	Power (RX)	3.5W max (without load)	
	OSSD outputs	2 PNP (push-pull)	
	Short-circuit protection	1.4A max	
	Output current	0.5A max on each output	
	Output voltage – ON status	Vdd-1V min	
	Output voltage – OFF status	0.2V max	
	Leakage current	< 1mA	
	Capacitive load	2.2 uF @ 24V DC max*	
Optical	Height	150 - 1800mm	300 - 1800mm
	Auxiliary functions	Test/Reset, Auto/Manual Restart (extended), EDM (extended)	
	Electrical protection	Class I / Class III	
	Connections	M12: Emitter 4 pole, Receiver 5 pole (basic), 8 pole (extended)	
	Cable length (for powering)	50m. max *	
	Light emission	Infrared LED (950nm)	
	Resolution	30mm	50mm / 90mm
	Operating distance	0.2m-19m (basic) or selectable 0.2m-9m / 0.2-19m (extended)	
	Aperture angle (EAA)	±5°	
	Ambient light rejection	IEC 61496-2	
Mechanical & Environmental	Operating temperature	0 - 55°C	
	Storage temperature	-25 to +70°C	
	Temperature class	T6	
	Humidity	15 - 95% (no condensation)	
	Mechanical protection	IP65 (EN 60529)	
	Vibration	0.35mm amplitude, 10 - 55 Hz frequency 20 sweep per axis, 1 octave/min (EN 60068-2-6)	
	Shock resistance	16ms (10g) 1.000 shock per axis, (EN 60068-2-29)	
	Housing material	Painted aluminium (yellow)	
	Protective shield material	PMMA	

* If a longer cable is needed, please verify that the capacitive load specifications are followed.

Sensing Field Heights

Height
150mm ¹
300mm
450mm
600mm
750mm
900mm
1050mm
1200mm
1350mm
1500mm
1650mm
1800mm

Number of Beams

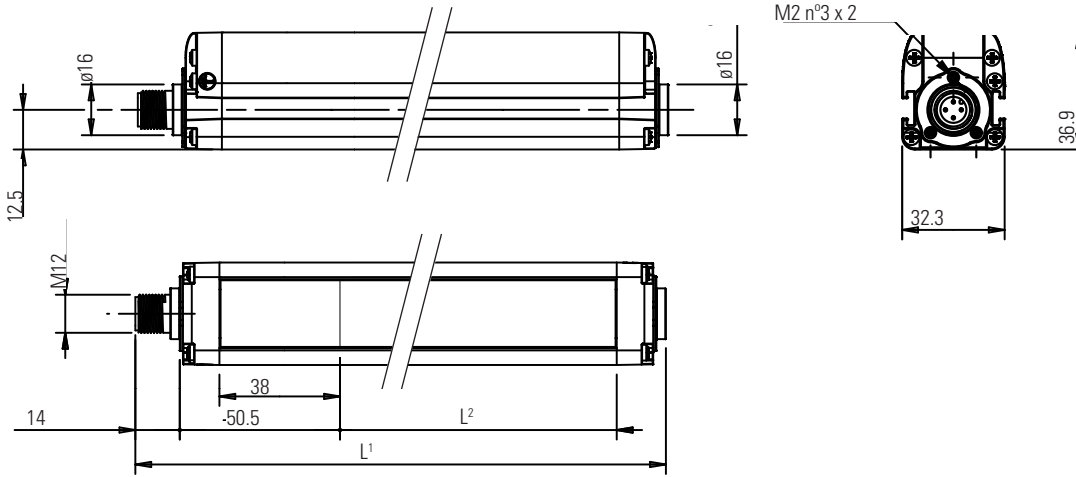
Height	SG2 Hand	SG2 Presence	
		50mm	90mm
150	8	–	–
300	16	9	5
450	24	13	7
600	32	17	9
750	40	21	11
900	48	25	13
1050	56	29	15
1200	64	33	17
1350	72	37	19
1500	80	41	21
1650	88	45	23
1800	96	49	25

Response Time (ms)

Height	SG2 Hand	SG2 Presence	
		50mm	90mm
150	8	–	–
300	9	9	9
450	11	10	10
600	12	11	11
750	14	12	12
900	15	14	13
1050	17	15	14
1200	18	16	15
1350	20	17	16
1500	21	18	17
1650	23	19	18
1800	24	20	19

1. Not applicable to SG2 Presence Series

Dimensions (mm)



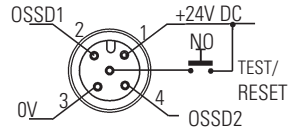
Dimension Table

Model	L ¹	L ²
150 ¹	233.3	153.3
300	383.2	303.2
450	533.2	453.3
600	683.2	603.2
750	833.2	753.3
900	983.2	903.2
1050	1133.2	1053.2
1200	1283.3	1203.3
1350	1433.2	1353.2
1500	1583.3	1503.3
1650	1733.3	1653.3
1800	1883.3	1803.3

1. Not applicable to SG2 Presence Series

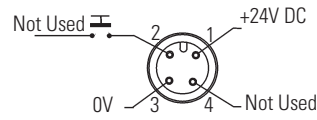
Dimensions (mm)
SG2 Basic Models

M12 5-Pole Connector



Pin	Cable Color	Function
1	brown	+24V DC
2	white	OSSD1
3	blue	0V
4	black	OSSD2
5	gray	TEST/RESET

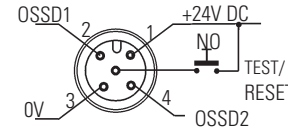
M12 4-Pole Connector



Pin	Cable Color	Function
1	brown	+24V DC
2	white	Not Used
3	blue	0V
4	black	Not Used

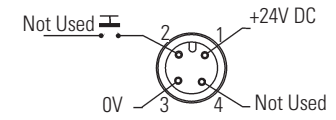
SG2 Extended Models

M12 8-Pole Connector



Pin	Cable Color	Function
1	white	RESET ¹
2	brown	+24V DC
3	green	EDM Activation
4	yellow	EDM
5	gray	OSSD1
6	pink	OSSD2
7	blue	0V
8	red	SEL MAN / AUTO RESTART

M12 4-Pole Connector



Pin	Cable Color	Function
1	brown	+24V DC
2	white	TEST
3	blue	0V
4	black	SG2: SEL operating distance

1. Automatic RESTART - RESET function
Manual RESTART - RESET/RESTART function

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