DATALOGIC - SG2-E 30 HAND

SG2-30-015-OO-E-C
Light curtain, 150/30 mm/0,2-19 m, EDM



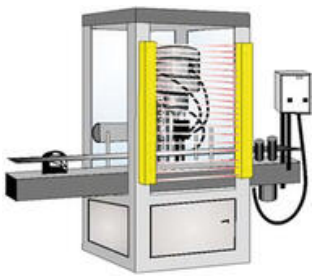
- Hand protection (R 30), Type 2, PL d
- Anti-interference function (0.2-9 m / 0.2-19 m)
- Protective height 150-1800 mm

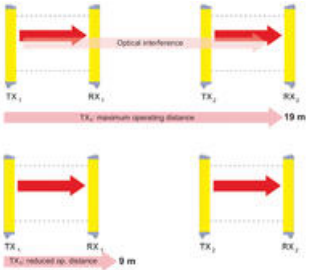
PRODUCT DESCRIPTION

Datalogic safety light curtain SG2-E Hand is made for hand detection with a range of up to 19 metres. The safety light curtain is available as type 2, and maintains level PLc according to the latest safety standards, EN ISO 13849-1 and EN 62061. SG2-E Hand is a extended version from SG2-B and it has integrated manual reset /automatic reset and input for monitoring of external contactors (EDM). SG2-E Hand include also an Anti-Interference function. The Anti-Interference system consents the installation of different light curtains aligned one next to the other avoiding mutual optical interference by choosing a shorter operating distance (9m instead of 19m), without the need to install separating shields.
The safety light curtain has two safe electronic short-circuit detection outputs (PNP). If potential free contacts are needed we can offer for example Datalogic safety relay CSME. Safety light curtain supplied complete with brackets.

Datalogic has a 3 year warranty for safety light curtains.

Application

Hand protection (R ≤ 40 mm)	
	
Anti-interference function	



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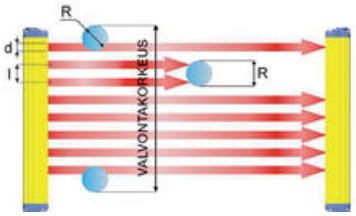
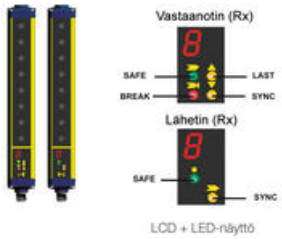
without the need to install separating shields.

TECHNICAL DATA



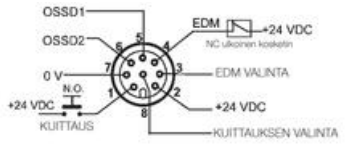
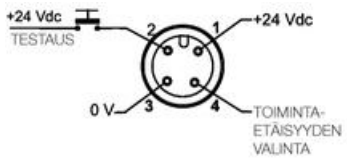


Supply voltage	24 V DC, stabilised
Tolerance	± 20 %
Max. current consumption / transmitter	2 W
Max. current consumption / receiver	3.5 W
Safe outputs (OSSD)	Transistor 2 x PNP
Max. current (OSSD)	0.5 A/each PNP
Response time	8-24 ms (depending on model, refer table "Order number")
Type of light	IR LED 950 nm
Operating distance	0.2-9 m/0.2-19 m (selection by wiring)
Protective height	150 -1800 mm
Extra functions	EDM, reset (manual/automatic), test input,
	Anti-interference function
Status indication	6 x LED, 7-segment LCD display
Resolution R	30 mm
Cable connection	Transmitter M12, 4-pole
	Receiver M12, 8-pole
Max. cable length	50 m
Material housing	Aluminium profile (RAL 1003), end caps PC makrolon

Weight	1.0 kg/m
Protection class	IP65
Operating temperature	0 °C to +55 °C
Storage temperature	-25 °C to +70 °C
Safety category	2 according to EN 954-1
PL	d according to EN ISO 13849-1
SIL	2 according to EN IEC 62061
PFHd	1.04E-08
T1 (Life time in years)	20
MTTFd (years)	273
DC	97.50 %
SFF	98.40 %
Approvals	

CONNECTION

Connection of SG2-E safety light curtain

Receiver	**Transmitter**
	

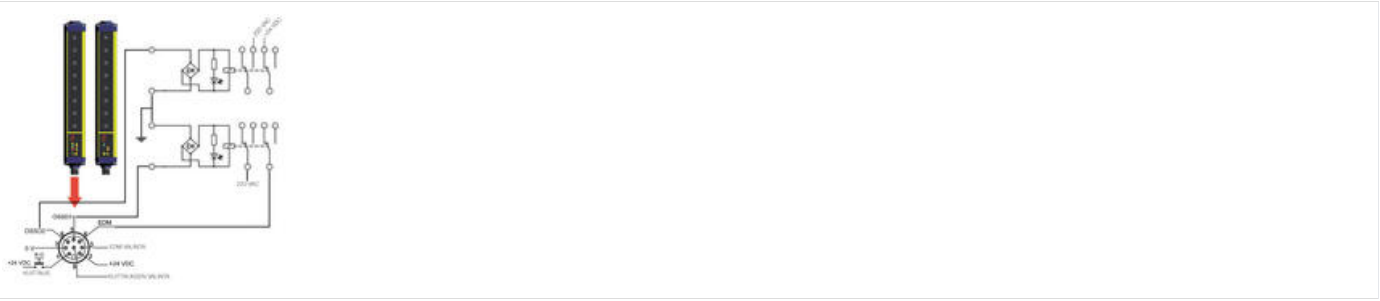
Receiver (Rx), 8-pole, M12-connector			**Transmitter** (Tx), 4-pole, M12-connector		
1	= white	= reset / restart	1	= brown	= 24 V DC (power supply)
2	= brown	= +24 V DC (power supply)	2	= white	= TEST
3	= green	= EDM activation (see below table)	3	= blue	= 0 V (power supply)
4	= yellow	= EDM	4	= black	= selection of operating distance
5	= grey	= OSSD1 (PNP)			
6	= pink	= OSSD2 (PNP)			
7	= blue	= 0 V (power supply)			
8	= red	= selection of reset (automatic/manual)			

Configuration of SG2-E safety light curtain

Function	**Connected to**	**Status**
Test **(Tx)** , pin 2	+ 24 V DC	Test ON
	Not connected or 0 V	Test OFF

Operating distance **(Tx)** , pin 4	+ 24 V DC	0.2 - 9 m
	Not connected or 0 V	0.2 - 19 m
Reset **(Rx)** , pin 1	+ 24 V DC	Reset ON
	Not connected or 0 V	Reset OFF
EDM activation **(Rx)** , pin 3	+ 24 V DC	EDM is OFF
	Not connected or 0 V	EDM is ON
EDM **(Rx)** , pin 4	NC contact from e.g. contactor	
Selection of reset mode **(Rx)** , pin 8	OSSD 1 (pin 5)	Automatic reset
	OSSD 2 (pin 6)	Manual reset

EDM connection



By EDM (External Device Monitoring) exterrnal contacts as contactor can be monitored.

MANUAL

SG2-E Hand

SG2-B-E, eng

ORDER NUMBERS & DIMENSIONS

Dimensions



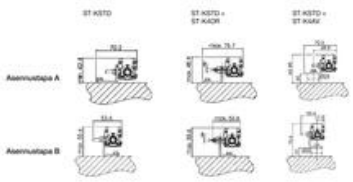
Order no.	Resolution (mm)	Protective height (mm)	Number of beams	Length housing L1 / L2 (mm)	Response time (ms)	Range (m)
Standard version						
SG2-30-015-OO-E-C	30	150	8	233.3 / 153.3	8	0.2 - 9 / 0.2 - 19
SG2-30-030-OO-E-C	30	300	16	383.2 / 303.2	9	0.2 - 9 / 0.2 - 19
SG2-30-045-OO-E-C	30	450	24	533.2 / 453.3	11	0.2 - 9 / 0.2 - 19

SG2-30-060-OO-E-C	30	600	32	683.2 / 603.2	12	0.2 - 9 / 0.2 - 19
SG2-30-075-OO-E-C	30	750	40	833.2 / 753.3	14	0.2 - 9 / 0.2 - 19
SG2-30-090-OO-E-C	30	900	48	983.2 / 903.2	15	0.2 - 9 / 0.2 - 19
SG2-30-105-OO-E-C	30	1050	56	1133.2 / 1053.2	17	0.2 - 9 / 0.2 - 19
SG2-30-120-OO-E-C	30	1200	64	1283.3 / 1203.3	18	0.2 - 9 / 0.2 - 19
SG2-30-135-OO-E-C	30	1350	72	1433.2 / 1353.2	20	0.2 - 9 / 0.2 - 19
SG2-30-150-OO-E-C	30	1500	80	1583.3 / 1503.3	21	0.2 - 9 / 0.2 - 19
SG2-30-165-OO-E-C	30	1650	88	1733.3 / 1653.3	22	0.2 - 9 / 0.2 - 19
SG2-30-180-OO-E-C	30	1800	96	1883.3 / 1803.3	24	0.2 - 9 / 0.2 - 19

All SG2-E safety light curtains are supplied with brackets (ST-K4ROT).

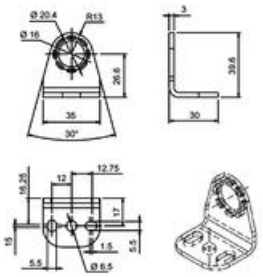
ACCESSORIES

Mounting brackets

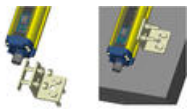


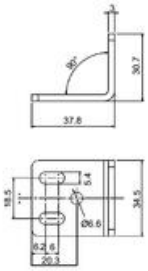






ST-K4ROT brackets. 1 kit (4 pcs.) supplied in the package





ST-KSTD brackets



ST-K4AV antivibration support use with ST-brackets

SG-LP laser pointer

All SG2-E safety light curtains are supplied with brackets (ST-K4ROT) .

Order no.	**Description**
Cables	
CS-A1-02-U-05	Cable, M12, straight, 5 metres, female, 4-pole
CS-A1-02-U-10	Cable, M12, straight, 10 metres, female, 4-pole
CS-A1-02-U-15	Cable, M12, straight, 15 metres, female, 4-pole
CS-A1-02-U-25	Cable, M12, straight, 25 metres, female, 4-pole
CS-A1-06-U-05	Cable, M12, straight, 5 metres, female, 8-pole
CS-A1-06-U-10	Cable, M12, straight, 10 metres, female, 8-pole
CS-A1-06-U-15	Cable, M12, straight, 15 metres, female, 8-pole
CS-A1-06-U-25	Cable, M12, straight, 25 metres, female, 8-pole
CS-A1-06-U-50	Cable, M12, straight, 50 metres, female, 8-pole
Safety relays	
CSME-03VU24-Y14	Safety relay Datalogic CSME, 3 NO, 24 V DC (this relay need EDM control from light curtain)
42010204	Safety relay Duelco NST-2004, 3 NO + 1 NC, 24 V DC
Brackets (extra). All SG2-B safety light curtains are supplied with standard brackets (ST-K4ROT)	
ST-K4ROT	Mounting bracket, rotatable (4 pcs. / kit)
ST-KSTD	Mounting bracket, standard (4 pcs. / kit)
ST-K4OR	Angle adjustment kit ±5° (4 pcs. / kit), use with ST-KSTD
ST-K6OR	Angle adjustment kit ±5° (6 pcs. / kit), use with ST-KSTD
ST-K4AV	Antivibration support (4 pcs. / kit)
ST-K6AV	Antivibration support (6 pcs. / kit)
SG-LP	Laser pointer

SPECIFICATIONS

Approvals	CE, cULus, TÜV
Cable Length Max	50 m
Contact Current Max	0.5 A
DC	97,50%
IP Class	IP65
Material of body	Aluminium
Mttfd	273 year
Number Of Beams	8
PL	c (EN ISO 13849-1)
Protection height	150 mm
Reaction time	8 ms
Scope	0,2-19 m
SIL	1 (EN IEC 62061)
Supply voltage	24 V DC
T1 (Life Time In Years)	20
Temperature range from	0 °C
Temperature range to	55 °C
Voltage Tolerance	±20 %

