



C45E-1001AG220

C4000 Micro in IP69K Housing

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	part no.
C45E-1001AG220	1025748

Other models and accessories → www.sick.com/C4000_Micro_in_IP69K_Housing

Detailed technical data

Features

System part	Receiver
Resolution	14 mm
Scanning range	1.8 m
Protective field height	1,050 mm
Synchronization	Optical synchronization

Safety-related parameters

Type	Type 4 (IEC 61496-1)
Safety integrity level	SIL 3 (IEC 61508)
Category	Category 4 (EN ISO 13849)
Performance level	PL e (EN ISO 13849)
PFH_D (mean probability of a dangerous failure per hour)	15 * 10 ⁻⁹ (EN ISO 13849)
T_M (mission time)	20 years (EN ISO 13849)
Safe state in the event of a fault	At least one OSSD is in the OFF state.

Functions

	Functions	Delivery status
Protective operation	✓	
Restart interlock	✓	Internal
External device monitoring (EDM)	✓	Activated

Interfaces

System connection	
Direction of cable connection	Straight
Cable diameter	6 mm
Conductor cross section	0.25 mm ²
Permitted cable length	15 m
Configuration method	Hard wired

Display elements	7-segment display
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Electronics

Protection class	III (IEC 61140)
Supply voltage V_S	24 V DC (19.2 V ... 28.8 V) ¹⁾
Residual ripple	$\leq 10\%$ ²⁾
Output signal switching devices (OSSDs)	
Type of output	2 PNP semiconductors, short-circuit protected, cross-circuit monitored
ON state, switching voltage HIGH	24 V DC (15 V DC ... 28.8 V DC)
OFF state, switching voltage LOW	2 V DC
Current-carrying capacity per OSSD	≤ 500 mA

¹⁾ The external voltage supply must be capable of buffering brief mains voltage failures of 20 ms as specified in EN 60204-1. Suitable power supplies are available as accessories from SICK.

²⁾ Within the limits of V_S .

Mechanics

Housing diameter	50 mm
Material	
End caps	Stainless steel V4A
Plastic tube	PMMA
Compensating element (membrane)	PA 6
PG connector	PA 6

Ambient data

Enclosure rating	IP69K, IP67, IP66, IP65 (IEC 60529)
Ambient operating temperature	-30 °C ... +55 °C
Storage temperature	-30 °C ... +70 °C
Air humidity	15 % ... 95 %, Non-condensing
Vibration resistance	5 g, 10 Hz ... 55 Hz (EN 60068-2-6)
Shock resistance	10 g, 16 ms (EN 60068-2-27)

Other information

Wave length	850 nm
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Classifications

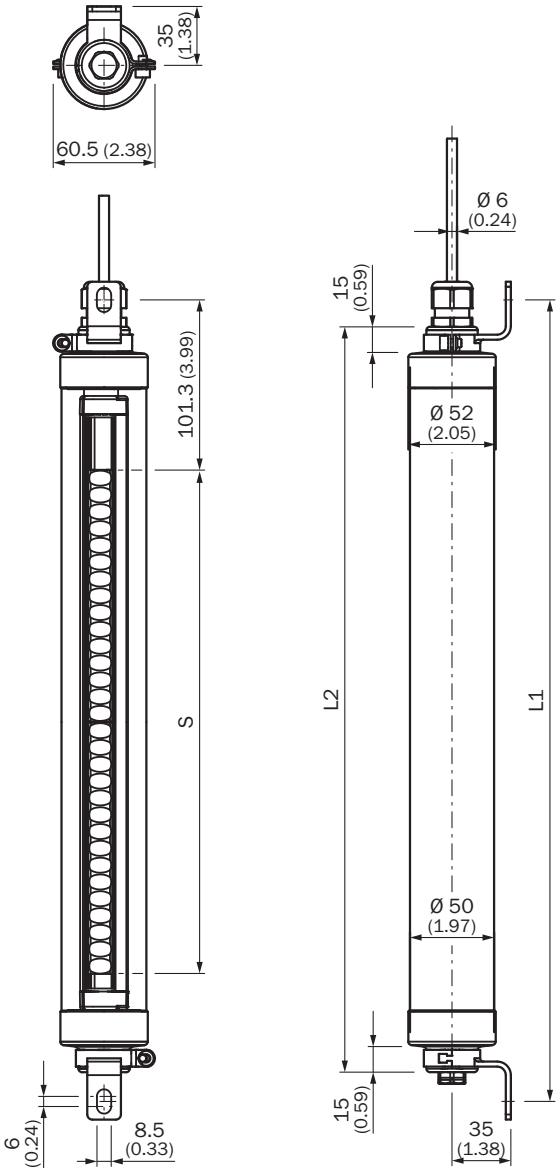
ECLASS 5.0	27272704
ECLASS 5.1.4	27272704
ECLASS 6.0	27272704
ECLASS 6.2	27272704
ECLASS 7.0	27272704
ECLASS 8.0	27272704
ECLASS 8.1	27272704
ECLASS 9.0	27272704
ECLASS 10.0	27272704
ECLASS 11.0	27272704

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ECLASS 12.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	46171620

Dimensional drawing



Dimensions in mm (inch)
illustration sender (receiver mirror image)

Protective field height S	L1	L2
150	357	324
300	476	443

Protective field height S	L1	L2
450	626	593
600	777	744
750	927	894
900	1.078	1.045
1.050	1.228	1.195
1.200	1.377	1.344
1.350	1.529	1.496
1.500	1.680	1.647
1.650	1.830	1.797
1.800	1.981	1.948

Recommended accessories

Other models and accessories → www.sick.com/C4000_Micro_in_IP69K_Housing

	Brief description	Type	part no.
device protection and care			
	Product family: Cleaning agents Description: Cloth for cleaning optical surfaces	Lens cloth	4003353
	Description: Bidirectional ventilation membrane made from Gore-Tex	Bidirectional ventilation membrane	5309082

	Brief description	Type	part no.
Mounting systems			
	• Description: Stainless steel bracket, rotatable • Material: Stainless steel • Details: Stainless steel 1.4350, stainless steel 1.4301 • Packing unit: 4 pieces	BEF-2SMMEAES4	2023708
	• Description: Reinforced stainless steel bracket, rotatable • Material: Stainless steel • Details: Stainless steel 1.4350, stainless steel 1.4301 • Packing unit: 4 pieces	BEF-2SMMVAES4	2026850
	• Description: Stainless steel support bracket • Material: Stainless steel • Details: Stainless steel 1.4350 • Packing unit: 2 pieces	BEF-2AAAADDES2	2026849
	• Description: Reinforced stainless steel bracket, rotatable • Material: Stainless steel • Details: Stainless steel 1.4350, stainless steel 1.4301 • Packing unit: 2 pieces	BEF-2SMMVAES2	2048373

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com