



C45E-S025

C4000 Palletizer in IP69K Housing

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.

C45E-S025 | C4000 Palletizer in IP69K Housing

SAFETY LIGHT CURTAINS



Illustration may differ

Ordering information

Type	part no.
C45E-S025	1053826

Other models and accessories → www.sick.com/C4000_Palletizer_in_IP69K_Housing

Detailed technical data

Features

System part	Receiver
Resolution	30 mm
Scanning range	4.5 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)	$15 \cdot 10^{-9}$ (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)	✓	Deactivated
Beam coding	✓	Code 1
Reduced resolution	✓	3 beams
Self-teaching dynamic blanking for goods detection	✓	
Self-teaching dynamic blanking for pallet detection	✓	
Multiple sampling	✓	2x evaluation
Direction monitoring	✓	
Object entry monitoring	✓	

Interfaces

System connection	
Cable diameter	6 mm
Conductor cross section	0.25 mm ²

Permitted cable length	15 m
Configuration method	PC with CDS (Configuration and Diagnostic Software)
Display elements	7-segment display

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 ($V_S - 2.25\text{ V DC} \dots V_S$)
OFF state, switching voltage LOW	2 V DC
Current-carrying capacity per OSSD	$\leq 500\text{ mA}$

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	80 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	0 °C ... +55 °C
Storage temperature	-25 °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

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Dimensional drawing








Dimensions in mm (inch)

illustration sender (receiver mirror image)

Recommended accessories

Other models and accessories → www.sick.com/C4000_Palletizer_in_IP69K_Housing

	Brief description	Type	part no.
device protection and care			
	<ul style="list-style-type: none"> Product family: Cleaning agents Description: Cloth for cleaning optical surfaces 	Lens cloth	4003353
	<ul style="list-style-type: none"> Description: Bidirectional ventilation membrane made from Gore-Tex 	Bidirectional ventilation membrane	5309082
Mounting systems			
	<ul style="list-style-type: none"> Description: Reinforced stainless steel bracket, rotatable Material: Stainless steel Details: Stainless steel Packing unit: 4 pieces 	BEF-2SMGVAES4	2060165
	<ul style="list-style-type: none"> Description: Stainless steel support bracket Material: Stainless steel Details: Stainless steel Packing unit: 2 pieces 	BEF-2AAAAOES2	2060164
system plugs and extension modules			
	<ul style="list-style-type: none"> Applications: Functionality upgrade Description: Upgrades the C4000 Standard, Advanced, Palletizer, Entry/Exit, and Fusion to include the functions defined in the technical specifications, e.g., bypass, operating mode switching, and PSDI in the case of C4000 Standard, Advanced. Compatible sensor types: C4000 safety light curtains 	UE402	1023577

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