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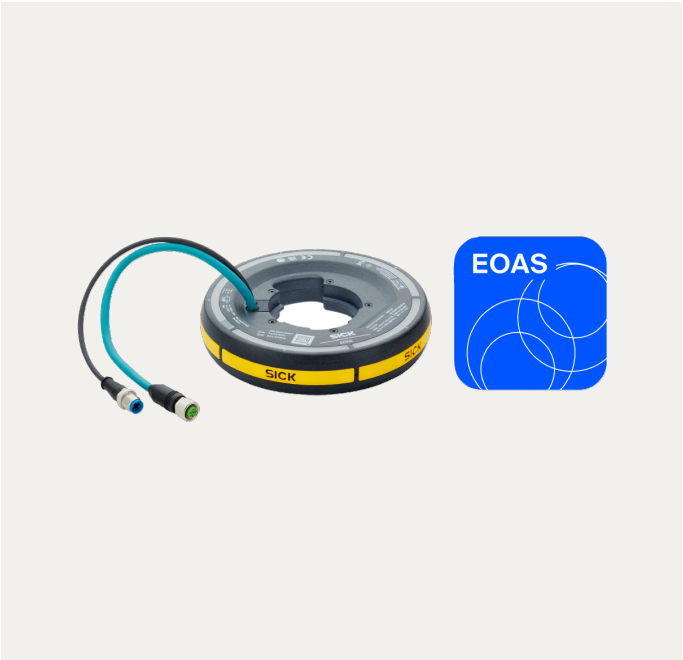
EOAS

DATA SHEET

EOAS170T-1A040AZA1

End-of-Arm-Safeguard
Safety systems for robots

SICK Sensor Intelligence



SAFETY SYSTEMS FOR ROBOTS

EOAS170T-1A040AZA1

ORDERING INFORMATION

Type	part no.
EOAS170T-1A040AZA1	1121300

Further device versions and accessories at www.sick.com/End-of-Arm-Safeguard

DETAILED TECHNICAL DATA

FEATURES

Functional principle	Time-of-flight measurement
Protective field length (along the longitudinal axis of the EOAS sensor)	100 mm ... 550 mm
Length of detection zone (along the longitudinal axis of the EOAS sensor)	
Close range	50 mm ... 100 mm
Distance range	550 mm ... 700 mm
Protective field angle	14°
Wave length	827 nm (infrared)
Laser class	1 (EN 60825-1)
Robot controller	Universal Robots: UR3e, UR5e, UR7e, UR10e, UR12e, UR16e, UR8L, UR15, UR18, UR20, UR30
Compatible robot software	≥ Polyscope 5.25.1
Configuration method	System configuration: EOAS URCap via UR Teach Pendant IP address of EOAS sensor: Web server
Response time	110 ms [1]
Resolution	
Minimum object height above work surface (typically table)	99 mm
Typical object height	20 mm [2]
Minimum object width	50 mm
Items supplied	1 x EOAS sensor 1 x Quickstart Guide EOAS URCap for download

[1] Value applies only to the safety system. The stopping time of the complete system including the robot depends on the selected robot type and other application conditions, e.g., mass of the workpiece. Additional information can be found in the robot documentation.

[2] Measurement using a test device on an example setup with a flat metallic work surface and constant ambient conditions.

SAFETY-RELATED PARAMETERS

Performance level	PL c (ISO 13849)
Category	2 (ISO 13849)
SRS performance class (IEC/TS 62998)	C
PFH_D (mean probability of a dangerous failure per hour)	2,92 × 10-6
T_M (mission time)	10 years (ISO 13849)

ELECTRONICS

Supply voltage U_e	24 V DC (20.4 V DC ... 28.8 V DC) [1]
Protection class	III (IEC 61140)
Maximum power consumption	≤ 3 W
Maximum cable length	15 m [2]

[1] PELV or SELV.

[2] Communication and supply voltage.

MECHANICS

Dimensions (W x H x D)	
EOAS sensor	172 mm x 34 mm x 172 mm
Material	
Housing	PA2200
Display LED disk	PMMA
Front screen	PMMA
Sheath of the voltage supply cable	PUR
Sheath of the communication cable	TPE
Plug of the voltage supply and communication cables	TPU
Weight	
EOAS sensor	435 g

AMBIENT DATA

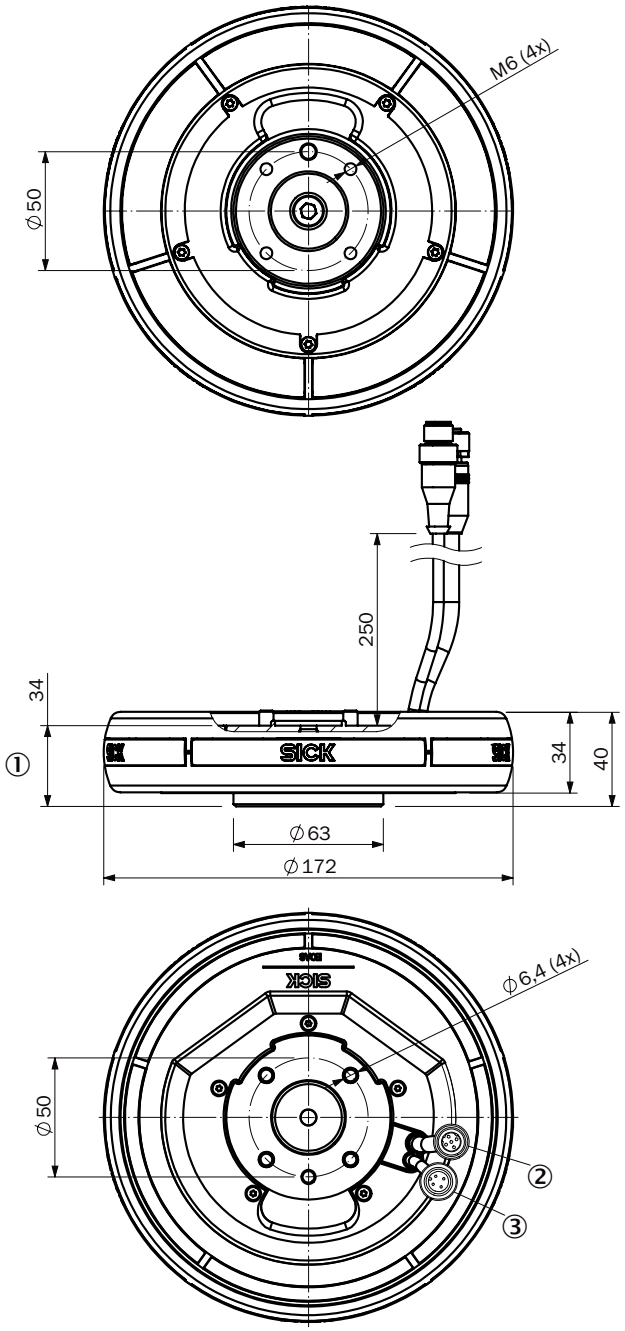
Ambient operating temperature	0 °C ... +50 °C
Ambient temperature, storage	–10 °C ... +65 °C
Protection class according to IEC 60529	IP54 (EN60529)
Vibration resistance	2 g, 10 Hz, 150 Hz (EN 60068-2-6)
Shock resistance	30 g, 11 ms (EN 60068-2-27)
Ambient lighting	
Operation	≤ 5,000 lx
Commissioning	≤ 4,000 lx
Electromagnetic compatibility (EMC)	In accordance with EN 61000-6-2, EN 61000-6-3 and 61000-6-7

CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
cULus certificate	✓
Laser safety (IEC 60825-1) certificate	✓

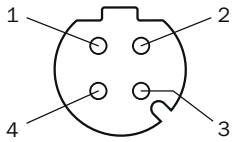
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

DIMENSIONAL DRAWING



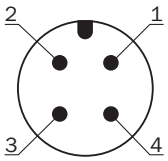
Dimensions in mm (inch)
① Height of EOAS flange (mounted)
② Ethernet cable (M12, socket, 5-pin)
③ Supply voltage cable (M12, plug, 4-pin)

PINOUTS ETHERNET



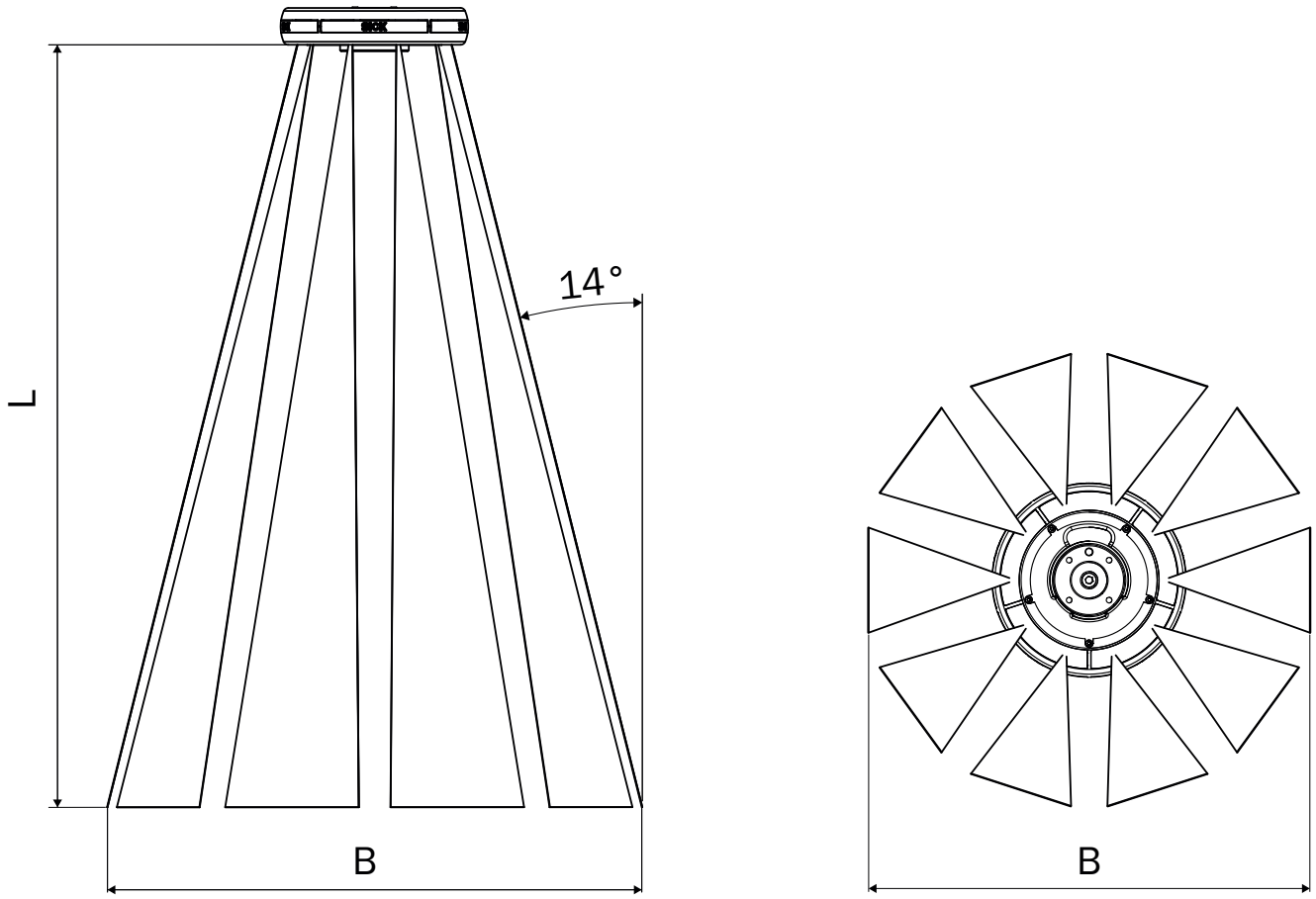
Pin	Designation	Description
1	TX+	Send data +
2	RX+	Receive data +
3	TX-	Send data -
4	RX-	Receive data -
For details see operating instructions		

PINOUTS SUPPLY VOLTAGE



Pin	Designation	Description
1	24 V DC	Supply voltage +24 V DC
2	N/C	Not connected
3	0 V DC	Supply voltage 0 V DC
4	N/C	Not connected
For details see operating instructions		

FUNCTIONAL PRINCIPLE PROTECTIVE FIELD SIZE



L	B
L	L/2 + 140 mm
300 mm	290 mm
400 mm	340 mm
500 mm	390 mm
550 mm	415 mm
For details see operating instructions	

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1121300

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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