



Illustration may differ



Ordering information

Type	Part no.
KTS-MBAC241152ZZZZ	1220204

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

Detailed technical data

Features

Special applications	Active Light Detection
Device type	Standard
Dimensions (W x H x D)	26 mm x 62 mm x 47.5 mm
Sensing distance	25 mm
Sensing distance tolerance	± 6 mm
Field of view	6 mm x 9 mm (at sensing distance 25 mm) 34 mm x 32 mm (at sensing distance 80 mm)
Housing design (light emission)	Middle
Working range	10 mm ... 80 mm
Light source	LED, white ¹⁾
Wave length	400 nm ... 750 nm
Light emission	Long side of housing
Light spot direction	-
Receiving filters	None
Teach-in mode	Active light detection
Output function	Light/dark switching
Delay time	Adjustable
Special features	-
Delivery status	2-point teach-in, active light detection
Parameter presettings	None

¹⁾ Average service life: 100,000 h at T_J = +25 °C.

Mechanics/electronics

Supply voltage	10.8 V DC ... 28.8 V DC ¹⁾
Ripple	$\leq 5 V_{pp}$ ²⁾
Current consumption	$< 100 \text{ mA}$ ³⁾
Switching frequency	1.5 kHz ⁴⁾
Response time	320 μs ⁵⁾
Jitter	160 μs
Switching output	Push-pull: PNP/NPN
Switching output (voltage)	Push-pull: PNP/NPN HIGH = $U_V - 3 \text{ V}$ /LOW $\leq 3 \text{ V}$
Output current I_{max}	100 mA ⁶⁾
Input, teach-in (ET)	Teach: $U = 10 \text{ V} \dots < V_S$
Input, blanking input (AT)	Blanked: $U = 10 \text{ V} \dots < U_v$
Input, fine/coarse (F/C)	Coarse: $U = 10 \text{ V} \dots < U_v$
Input, light/dark (L/D)	Light: $U = 10 \text{ V} \dots < U_v$
Retention time (ET)	25 ms, non-volatile memory
Connection type	Male connector M12, 5-pin
Protection class	III
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP67
Weight	68 g
Housing material	Plastic, VISTAL®
Optics material	Plastic, COP

¹⁾ Limit values: DC 12 V (-10 %) ... DC 24 V (+20 %). Operation in short-circuit protected network max. 8 A.

²⁾ May not exceed or fall below U_V tolerances.

³⁾ Without load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ Signal transit time with resistive load.

⁶⁾ Total current of all Outputs.

Ambient data

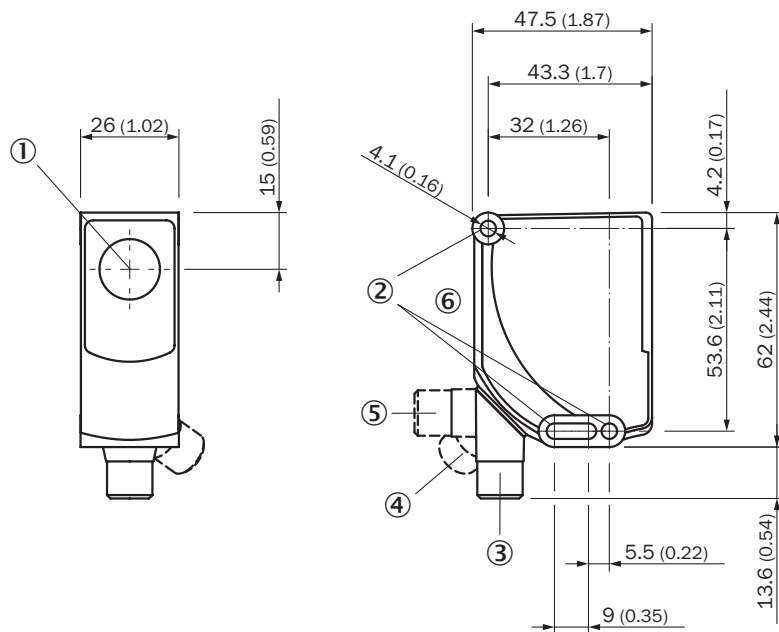
Ambient operating temperature	-20 °C ... +60 °C
Ambient temperature, storage	-25 °C ... +75 °C
Shock load	According to IEC 60068-2-27 (30 g/11 ms)
UL File No.	E181493

Classifications

ECl@ss 5.0	27270906
ECl@ss 5.1.4	27270906
ECl@ss 6.0	27270906
ECl@ss 6.2	27270906
ECl@ss 7.0	27270906
ECl@ss 8.0	27270906

ECl@ss 8.1	27270906
ECl@ss 9.0	27270906
ECl@ss 10.0	27270906
ECl@ss 11.0	27270906
ETIM 5.0	EC001820
ETIM 6.0	EC001820
ETIM 7.0	EC001820
ETIM 8.0	EC001820
UNSPSC 16.0901	39121528

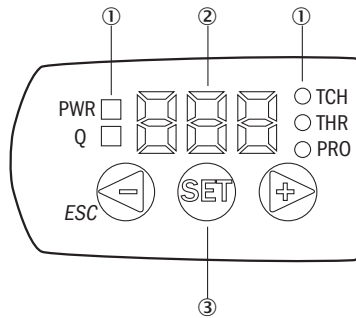
Dimensional drawing (Dimensions in mm (inch))



- ① Optical axis
- ② Fixing hole
- ③ Male connector M12, delivery state
- ④ Male connector M12, end stop right
- ⑤ Male connector M12, end stop left
- ⑥ Display and adjustment elements

Adjustments

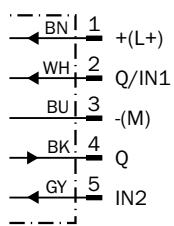
Display and adjustment elements



- ① LED status indicator
- ② Display
- ③ Navigation buttons

Connection diagram

Cd-382

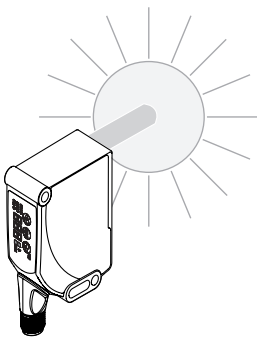


Concept of operation

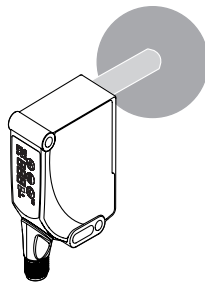
ALD - setting the switching threshold (2-point teach-in)

Suitable for manual positioning of the active light to be detected, e.g. active light and inactive light.

- 1. Position active light source**
- 2. Position inactive light source**




When setting the light to be detected, "1st" flashes. Press set button.



When setting the light to be detected, "2nd" flashes. Press set button. The Quality of Teach is displayed.

Recommended accessories

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

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate K for universal clamp bracket, steel, zinc coated, Universal clamp (2022726), mounting hardware	BEF-KHS-K01	2022718
	Mounting bar, straight, 200 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12G-A	4056054
	Mounting bar, L-shaped, 150 mm x 150 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12L-A	4056052
Plug connectors and cables			
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A15-050VB5XLEAX	2096240
	Head A: male connector, M12, 5-pin, straight Cable: unshielded For field bus technology	STE-1205-G	6022083

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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.

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