



KTS-MBAC241152ZZZZ

KTS

CONTRAST SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
KTS-MBAC241152ZZZ	1220204

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

Detailed technical data

Features

Parameter presets	None
Special applications	Active Light Detection
Device type	Standard
Housing design	Middle
Dimensions (W x H x D)	26 mm x 62 mm x 47.5 mm
Light source	LED, White ¹⁾
Light emission	Long side of housing
Receiving filters	None
Wave length	400 nm ... 750 nm
Working range	10 mm ... 80 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)
Teach-in mode	Active light detection
Output function	Light/dark switching
Delay time	Adjustable
Setting the key lock	Standard
Delivery status	2-point teach-in, active light detection
Safety-related parameters	
MTTF _D	291 years

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

Electronics

Supply voltage	10.8 V DC ... 28.8 V DC ¹⁾
Ripple	$\leq 5 \text{ V}_{\text{pp}}$ ²⁾
Current consumption	< 100 mA ³⁾
Switching frequency	1.5 kHz ⁴⁾
Response time	
	320 μs
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 $I_{\text{max.}}$	100 mA ⁵⁾
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
Time delay	None
Protection class	III
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Connection type	Plug, M12, 5-pin

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

²⁾ May not fall below or exceed U_V tolerances.

³⁾ Without load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ Total current of all Outputs.

Mechanics

Housing material	VISTAL®
Optics material	COP
Weight	68 g

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)
Enclosure rating	IP67
UL File No.	E181493

Classifications

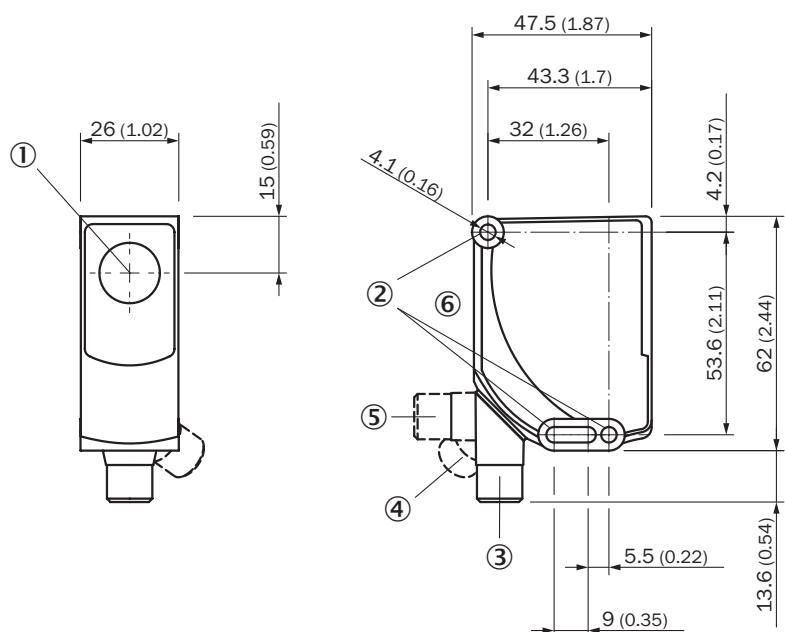
ECLASS 5.0	27270906
ECLASS 5.1.4	27270906

ECLASS 6.0	27270906
ECLASS 6.2	27270906
ECLASS 7.0	27270906
ECLASS 8.0	27270906
ECLASS 8.1	27270906
ECLASS 9.0	27270906
ECLASS 10.0	27270906
ECLASS 11.0	27270906
ECLASS 12.0	27270906
ETIM 5.0	EC001820
ETIM 6.0	EC001820
ETIM 7.0	EC001820
ETIM 8.0	EC001820
UNSPSC 16.0901	39121528

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
Photobiological safety (IEC EN 62471)	✓

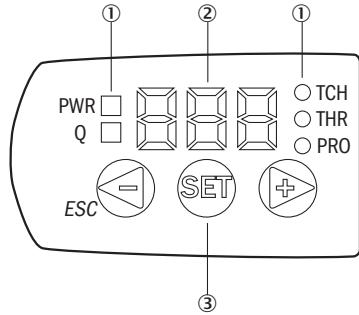
Dimensional drawing



Dimensions in mm (inch)

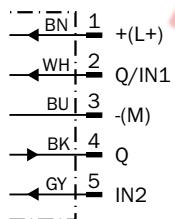
- ① Optical axis
- ② fixing hole
- ③ M12 male connector, delivery state
- ④ M12 male connector, end stop right
- ⑤ M12 male connector, end stop left
- ⑥ display and adjustment elements

display and adjustment elements



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

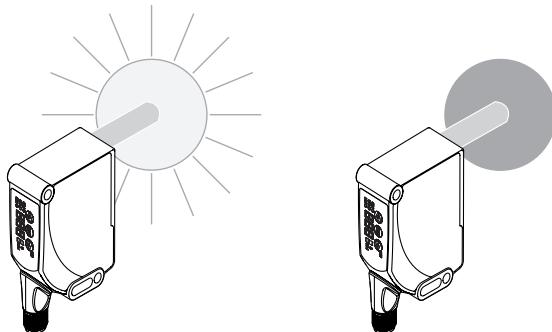
Connection diagram Cd-382



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

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> Description: Plate K for universal clamp bracket Material: Steel Details: Steel, zinc coated Items supplied: Universal clamp (2022726), mounting hardware Usable for: W11-2, W12-3, W14-2, W18-3, W23-2, W24-2, W27-3, W30, W32, W34, W36, PL50A, PL80A, P250, UC12, LUT3, KT2, KT5-2, KT8, CS8, DT2, DS30, DS40, W12-2 Laser, W16, W26, KT5 	BEF-KHS-K01	2022718
connectors and cables			
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 5-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones 	YF2A15-050VB5XLEAX	2096240
	<ul style="list-style-type: none"> Connection type head A: Male connector, M12, 5-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm² Note: For field bus technology 	STE-1205-G	6022083

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