



KTL10W-P15

KT10

CONTRAST SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
KTL10W-P15	1023419

Other models and accessories → www.sick.com/KT10



Detailed technical data

Features

Dimensions (W x H x D)	30.4 mm x 53 mm x 80 mm
Sensing distance	Dependent on the fiber-optic cable
Sensing distance tolerance	Dependent on the fiber-optic cable
Housing design (light emission)	Rectangular
Light source	LED, RGB
Wave length	470 nm, 525 nm, 640 nm
Light spot size	0.8 mm x 4 mm
Adjustment	Teach-in button
Teach-in mode	Dynamic teach-in (min/max)
Function	Deactivation delay ... 20 ms

Mechanics/electronics

Supply voltage	12 V DC ... 30 V DC ¹⁾
Ripple	≤ 5 V _{pp} ²⁾
Power consumption	< 150 mA ³⁾
Switching frequency	25 kHz ⁴⁾
Response time	20 μs ⁵⁾
Jitter	< 10 μs
Switching output	PNP
Switching output (voltage)	PNP: HIGH = V _S - ≤ 2 V / LOW approx. 0 V

¹⁾ Limit values.

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⁾ ET > 2 ms.

⁷⁾ AT > 200 μs.

⁸⁾ Reference voltage DC 50 V.

Output current I_{max}.	100 mA
Input, teach-in (ET)	PNP Teach: $U = 10\text{ V} \dots < U_V$ Run: $U < 2\text{ V}$ ⁶⁾
Input, blanking input (AT)	PNP Blanked: $U > 10\text{ V} \dots < U_V$ Free-running: $U < 2\text{ V}$ ⁷⁾
Retention time (ET)	25 ms, non-volatile memory
Connection type	Male connector M12, 5-pin
Protection class	II ⁸⁾
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP67
Weight	400 g
Housing material	Zinc diecast

1) Limit values.

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) ET > 2 ms.

7) AT > 200 μs .

8) Reference voltage DC 50 V.

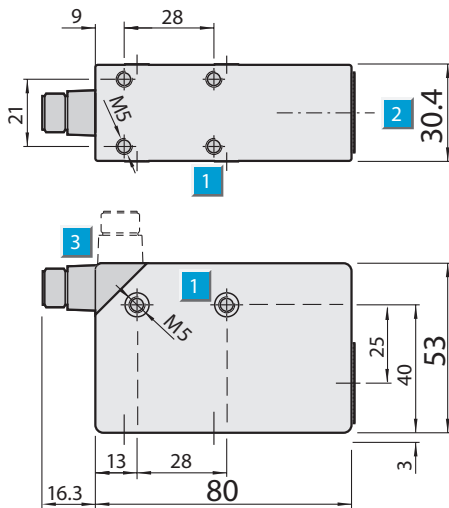
Ambient data

Ambient operating temperature	-10 °C ... +60 °C
Ambient storage temperature	-10 °C ... +75 °C
Shock load	According to IEC 60068
UL File No.	NRKH.E181493 & NRKH7.E181493

Classifications

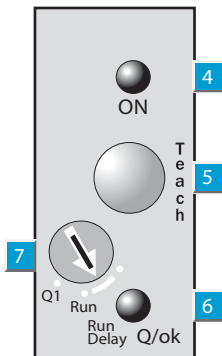
ECl@ss 5.0	27270906
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ECl@ss 6.2	27270906
ECl@ss 7.0	27270906
ECl@ss 8.0	27270906
ECl@ss 8.1	27270906
ECl@ss 9.0	27270906
ETIM 5.0	EC001820
ETIM 6.0	EC001820
UNSPSC 16.0901	39121528

Dimensional drawing (Dimensions in mm (inch))

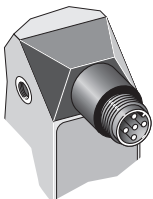


- ① M5 threaded mounting hole, 5.5 mm deep
- ② Lens (light emission)
- ③ M12 male connector, 5-pin, rotatable
- ④ Operating indicator, green
- ⑤ Teach-in button
- ⑥ Function indicator output and teach-in, yellow
- ⑦ Program selector switch

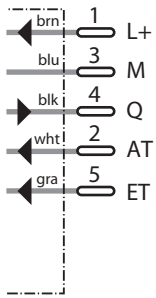
Adjustments



Connection type






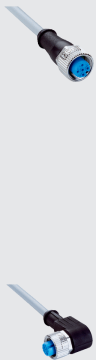




Connection diagram



Recommended accessories

Other models and accessories → www.sick.com/KT10

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate G for universal clamp bracket, steel, zinc coated, Universal clamp (2022726), mounting hardware	BEF-KHS-G01	2022464
	Plate K for universal clamp bracket, steel, zinc coated, Universal clamp (2022726), mounting hardware	BEF-KHS-K01	2022718
	Universal clamp bracket for rod mounting, steel, zinc coated, without mounting hardware	BEF-KHS-KH1	2022726
	Mounting bar, straight, 200 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12G-A	4056054
	Mounting bar, straight, 300 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12G-B	4056055
	Mounting bar, L-shaped, 150 mm x 150 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12L-A	4056052
	Mounting bar, L-shaped, 250 x 250 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12L-B	4056053
Plug connectors and cables			
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF2A15-020VB5XLEAX	2096239
	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: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YF2A15-100VB5XLEAX	2096241
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YG2A15-020VB5XLEAX	2096215
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG2A15-050VB5XLEAX	2096216

	Brief description	Type	Part no.
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YG2A15-100VB5XLEAX	2096217
	Head A: female connector, M12, 5-pin, straight Cable: unshielded	DOS-1205-G	6009719
	Head A: female connector, M12, 5-pin, angled Head B: - Cable: unshielded	DOS-1205-W	6009720

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.”

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