



Contrast sensors KT10, KT10

KTL10W-P15

Model Name > [KTL10W-P15](#)
Part No. > [1023419](#)



At a glance

- Very low jitter (< 10 µs)
- Precise light spot
- Best contrast resolution thanks to RGB LED technology
- Two interchangeable light exits
- Five storage banks for settings
- Automatic drift correction
- Fast switching frequency of 25 kHz
- Easy-to-read bar graph display

Your benefits

- Very precise detection of print marks enables optimal results for packaging and printing applications
- All contrast marks, even pale yellow on white paper, can be reliably detected thanks to RGB LED technology
- Automatic drift correction helps detect difficult to see marks, such as faded print marks, enabling higher production reliability
- Reliable operation, even with high-gloss reflective surfaces, increasing throughput
- Simple teach-in via an external signal can be performed while the material is moving, enabling shorter setup time
- Long-lasting, tough metal housing



Features

Dimensions (L x W x H):	80 mm x 30.4 mm x 53 mm
Sensing distance:	Dependent on the fiber-optic cablethe fiber-optic cable
Sensing distance tolerance:	Dependent on the fiber-optic cablethe fiber-optic cable
Light source ¹⁾ :	LED red, green, blue
Light spot size:	Dependent on the fiber-optic cable
Adjustment:	Dynamic teach-in (min/max)
Function:	Deactivation delay ... 20 ms

¹⁾ Wave length: 470 nm, 525 nm, 640 nm

Mechanics/electronics

Supply voltage Vs ¹⁾ :	DC 12 V ... 30 V
Ripple ²⁾ :	≤ 5 Vpp
Power consumption ³⁾ :	< 150 mA
Switching frequency ⁴⁾ :	25 kHz

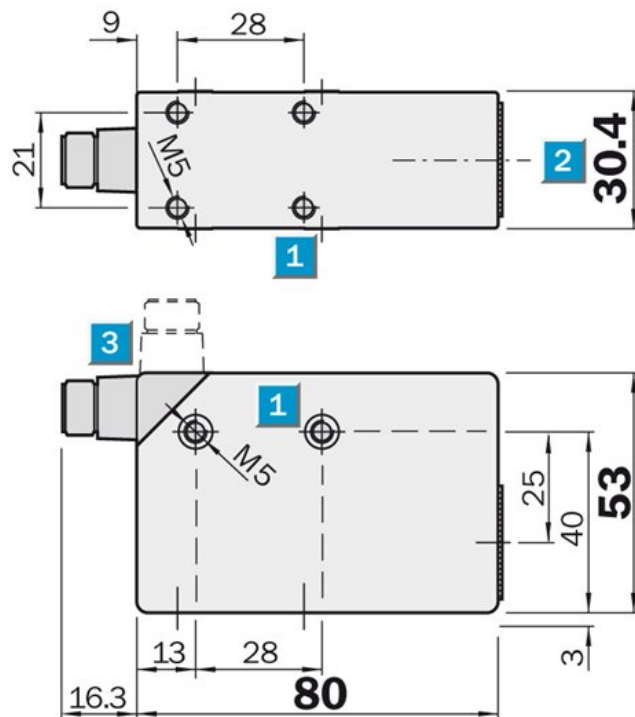
Response time ⁵⁾ :	20 µs
Jitter:	< 10 µs
Output type:	PNP: HIGH = VS- ≤ 2 V / LOW approx. 0 V
Switching mode:	PNP
Input, teach-in (ET) ⁶⁾ :	PNP: Teach: U = 10 V ... < U _V Run: U < 2 V
Input, blanking input (AT) ⁷⁾ :	PNP: blanked: U > 10 V ... < U _V free-running: U < 2 V
Retention time (ET):	25 ms, non-volatile memory
Connection type:	Connector M12, 5-pin
Protection class ⁸⁾ :	II
Circuit protection:	Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	Ca. 400 g
Housing material:	Die-cast zinc
Output current I _{max.} :	100 mA

¹⁾ Limit values ²⁾ May not exceed or fall short of V_S 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

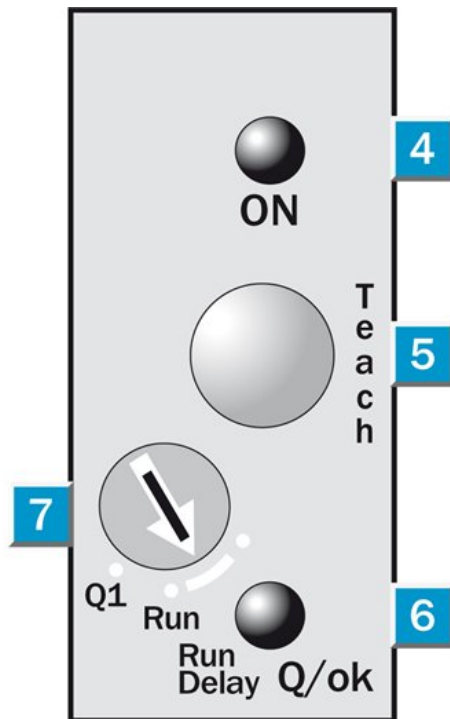
Ambient temperature:	Operation: -10 ... 60 °C Storage: -10 ... 75 °C
Shock load:	According to IEC 60068

Dimensional drawing

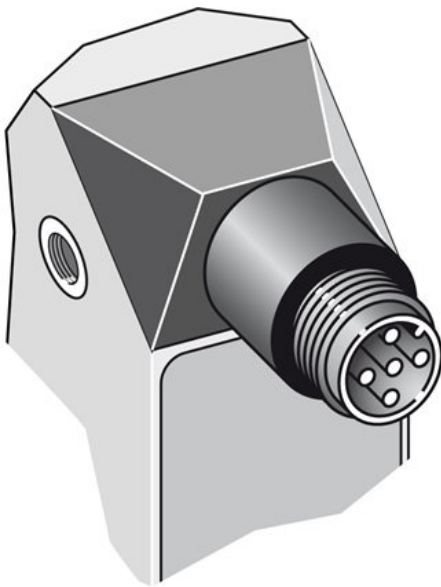


- [1] M5 threaded mounting hole, 5.5 mm deep
- [2] Lens (light transmission)
- [3] Connector M12, 5-pin rotatable
- [4] Operating indicator, green
- [5] Teach-in button
- [6] Function indicator output and teach-in, yellow

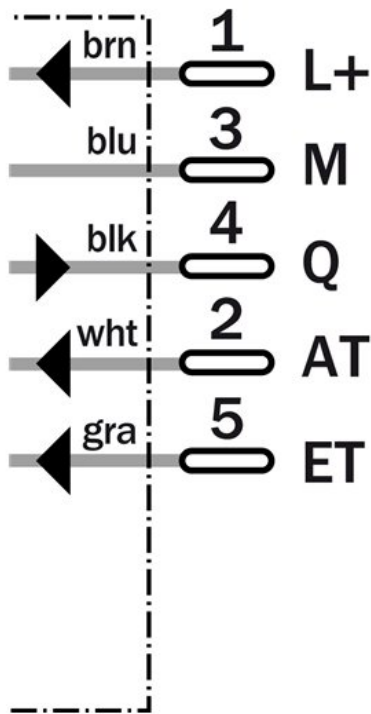
Adjustments



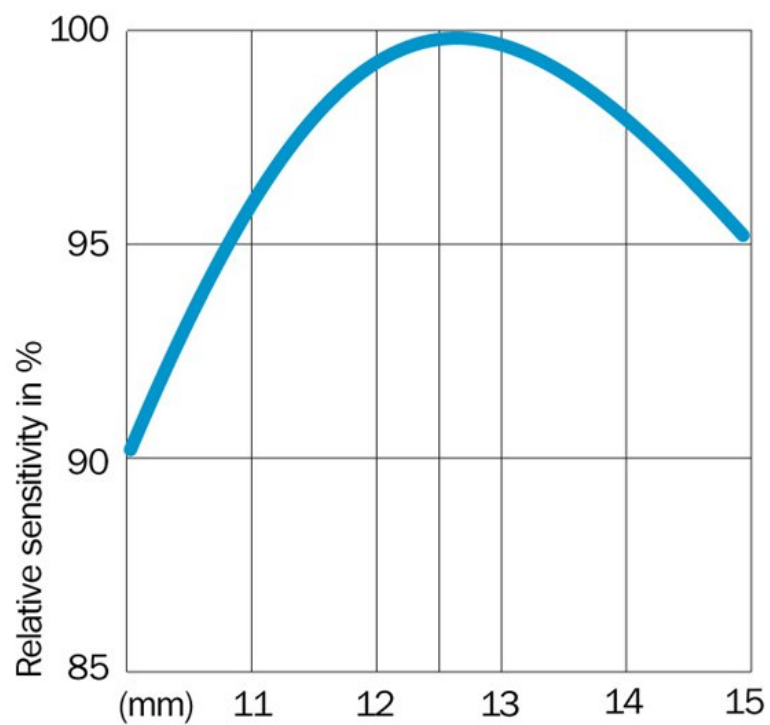
Connection type



Connection diagram



Characteristic curve



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