



Contrast sensors KT5, KT5-2 Potentiometer

KT5G-2P2351



Model Name > [KT5G-2P2351](#)
Part No. > [1018067](#)



At a glance

- Tough, metal housing
- Manual switching threshold adjustment with optical adjustment indicator
- Green or white LED technology
- Models with analog output
- Switching frequency of 10 kHz
- Various sensing distances and light spot directions
- M12 plug can be rotated 90°

Your benefits

- All standard print marks and contrasts are detected
- Reliable operation, even with jittering webs and high-gloss materials
- High positioning accuracy improves packaging quality
- Various sensing distances, light spot directions and light emissions make individual configuration and simple integration into the production process possible



Features

Dimensions (L x W x H):	80 mm x 30.4 mm x 53 mm
Sensing distance ¹⁾ :	40 mm
Sensing distance tolerance:	± 3 mm
Light source ^{2), 3)} :	LED green
Light emission:	Long and short side of housing, exchangeable
Light spot size:	1.2 mm x 4.2 mm
Light spot direction ⁴⁾ :	Horizontal
Adjustment:	Manual adjustment, potentiometer
Output function:	Light/dark switching

¹⁾ From front edge of lens ²⁾ Average service life of 100,000 h at T_A = +25 °C ³⁾ Wave length: 520 nm ⁴⁾ In relation to long side of housing

Mechanics/electronics

Supply voltage V _s ¹⁾ :	DC 10 V ... 30 V
Ripple ²⁾ :	≤ 5 Vpp
Power consumption ³⁾ :	< 80 mA
Switching frequency ⁴⁾ :	10 kHz
Response time ⁵⁾ :	50 µs
Output type:	PNP: HIGH = V _S - ≤ 2 V / LOW approx. 0 V

1) Limit values: operation in short-circuit protected network max. 8 A 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) Reference voltage DC 50 V

Ambient temperature:	Operation: -10 ... 55 °C, Storage: -25 ... 75 °C
Shock load:	According to IEC 60068
UL File-No.:	UL No. NRKH.E181493 & cUL No. NRKH7.E181493

Technical drawing of the M12-2000-0100-0000 connector. The drawing includes a top view, a side view, and three detail views of the sensing distance.

Top View Dimensions:

- Overall width: 56 (2.20)
- Overall height: 30.4 (1.20)
- Distance from left edge to center of M5 hole: 28 (1.10)
- Distance from left edge to center of M12 hole: 9 (0.35)
- Distance from left edge to center of M12 hole (alternative): 21 (0.83)
- Distance from left edge to center of M12 hole (alternative): 13 (0.51)
- Distance from left edge to center of M12 hole (alternative): 17 (0.67)
- Distance from left edge to center of M12 hole (alternative): 28 (1.10)
- Distance from left edge to center of M12 hole (alternative): 52 (2.05)
- Distance from left edge to center of M12 hole (alternative): 80 (3.15)
- Distance from left edge to center of M12 hole (alternative): 25 (0.98)
- Distance from left edge to center of M12 hole (alternative): 40 (1.57)
- Distance from left edge to center of M12 hole (alternative): 53 (2.09)

Side View Dimensions:

- Overall height: 25.5 (1.00)
- Distance from bottom edge to center of M12 hole: 3.5 (0.14)
- Distance from bottom edge to center of M12 hole: 4.5 (0.18)
- Distance from bottom edge to center of M12 hole: 17.4 (0.69)
- Distance from bottom edge to center of M12 hole: 26 (1.02)

Detail Views of Sensing Distance:

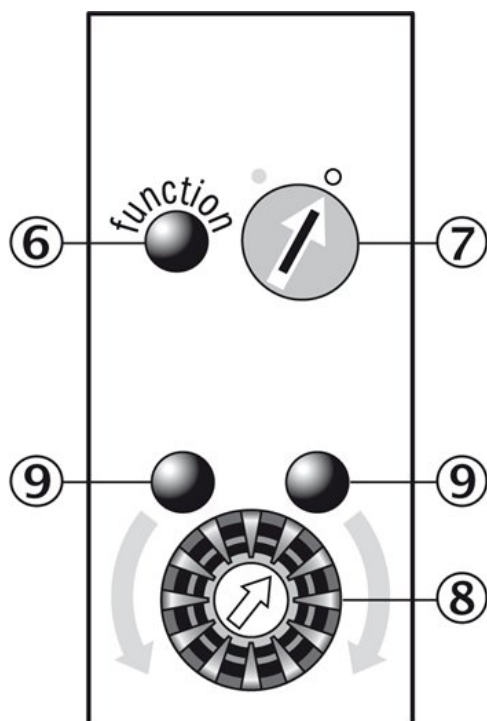
- Sensing distance 10 mm (0.39 inch)
- Sensing distance 20 mm (0.79 inch)
- Sensing distance 40 mm (1.57 inch)

Legend:

- 1| Lens (light transmission), can be exchanged for pos. 4
- 2| M5 threaded mounting hole, 5.5 mm deep
- 3| See dimensional drawing for lens
- 4| Blind screw can be replaced by pos. 1
- 5| Connector M12 (rotatable up to 90°)

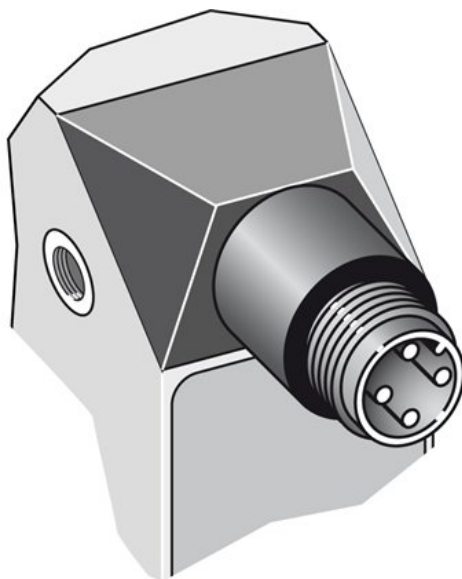
All dimensions in mm (inch)

Adjustments

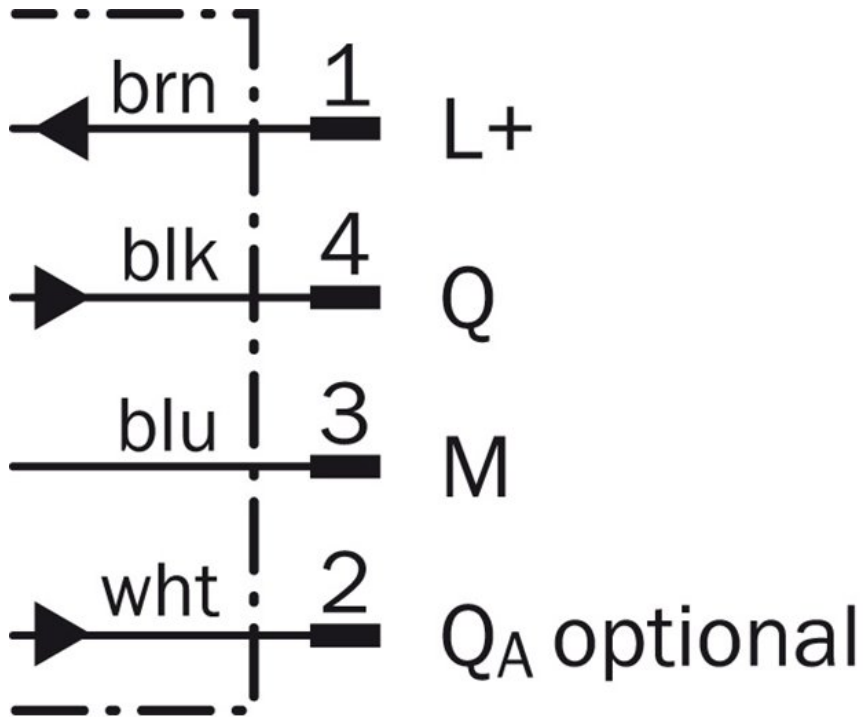


- |6| Function signal indicator (yellow)
- |7| Pre-selection switch (light/dark switching)
- |8| Switching threshold adjustment
- |9| Adjustment indicators (green)

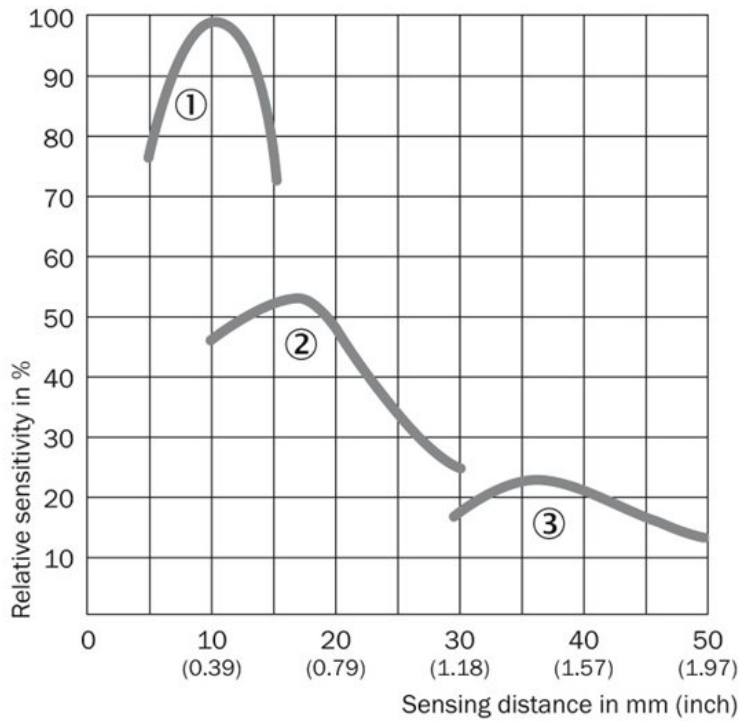
Connection type



Connection diagram



Sensing distance



- |1| Sensing distance 10 mm
- |2| Sensing distance 20 mm
- |3| Sensing distance 40 mm

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