



Contrast sensors
KT5, KT5-2 Teach-in

KT5G-2P1314



Model Name > [KT5G-2P1314](#)
Part No. > [1018988](#)



At a glance

- Tough, metal housing
- Various teach-in methods via control panel or control cable
- Maximum detection reliability due to 3-color RGB LED technology
- Switching frequency of 10 kHz
- Various sensing distances and light spot directions
- M12 plug can be rotated 90°

Your benefits

- All print marks and color combinations are reliably detected, ensuring high machine throughput
- 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:	1.1 mm x 4.2 mm
Light spot direction ⁴⁾ :	Vertical
Adjustment:	Without, automatic contrast detection

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
Switching mode:	PNP

Input, fine/coarse (F/C):

Input, light/dark (L/D):

Retention time (ET):

Connection type:

Protection class ⁶⁾:

Circuit protection:

Enclosure rating:

Weight:

Housing material:

Output current I_{max} .:

Coarse: U > 10 V ... < U_v, PNP: fine: U = 0 V

Dark: U > 10 V ... < U_v, Light: U = 0 V, PNP:

25 ms, non-volatile memory

Connector M12, 5-pin

II

Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected

IP 67

Ca. 400 g

Zinc diecast

100 mA

- 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⁾
⁶⁾ Reference voltage DC 50 V
Signal transit time with resistive load

Ambient data

Ambient temperature:

Operation: -10 ... 55 °C, Storage: -25 ... 75 °C

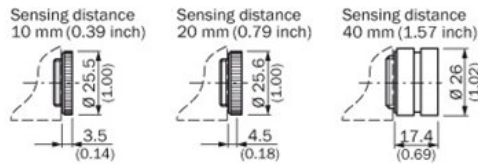
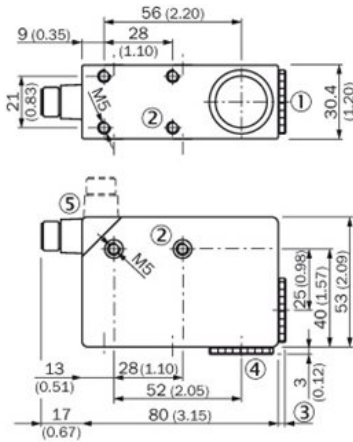
Shock load:

According to IEC 60068

UL File-No.:

UL No. NRKH.E181493 & cUL No. NRKH7.E181493

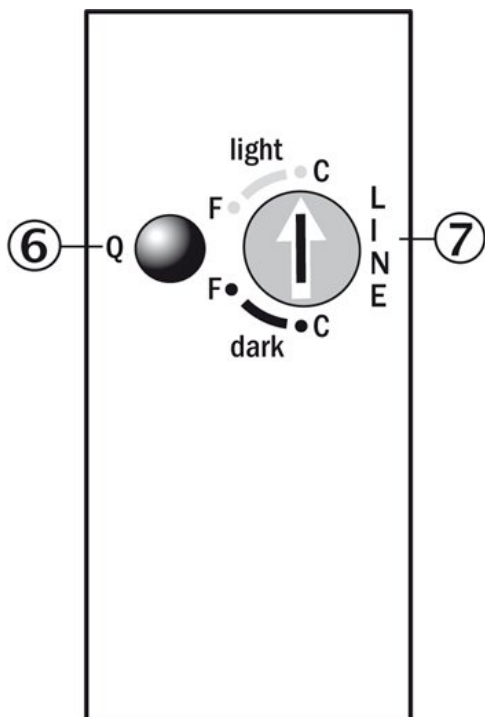
Dimensional drawing



- [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°)

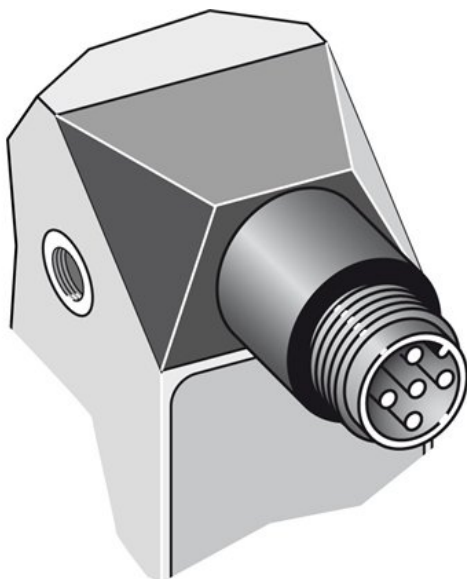
All dimensions in mm (inch)

Adjustments

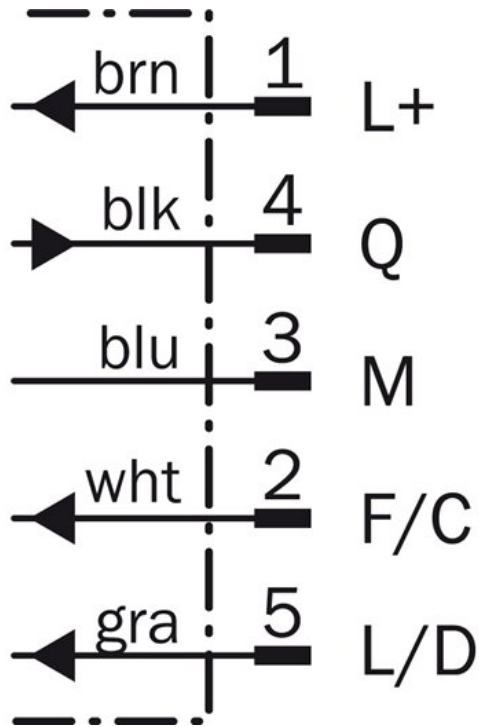


- [6] Function signal indicator (yellow)
- [7] Fine/coarse switch

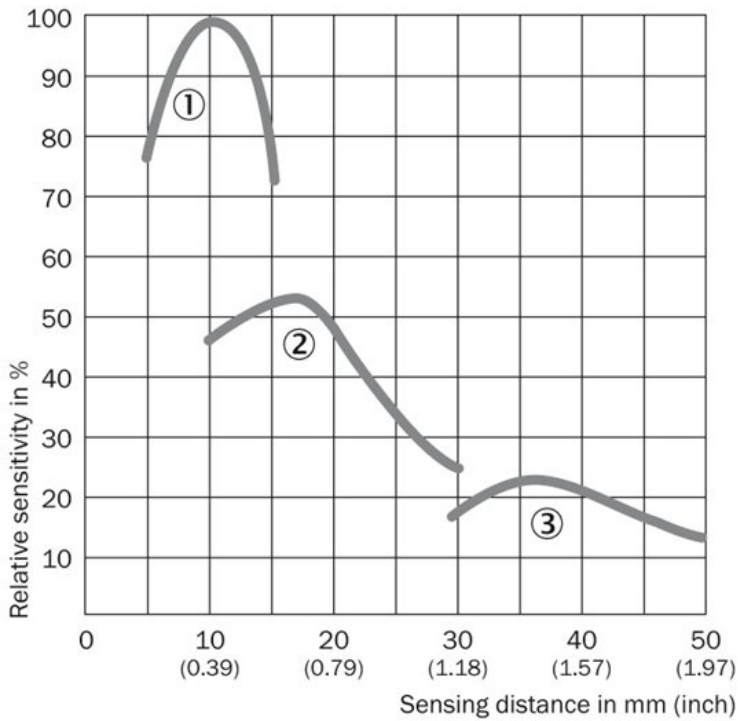
Connection type



Connection diagram



Sensing distance



- [1] Sensing distance 10 mm
- [2] Sensing distance 20 mm
- [3] Sensing distance 40 mm

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