



Contrast sensors  
KT5, KT5-2 Potentiometer

KT5G-2N1121



**Model Name** > [KT5G-2N1121](#)  
**Part No.** > [1015983](#)



**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 <sup>1)</sup> :	10 mm
Sensing distance tolerance:	± 3 mm
Light source <sup>2), 3)</sup> :	LED green
Light emission:	Long and short side of housing, exchangeable
Light spot size:	1.2 mm x 4.2 mm
Light spot direction <sup>4)</sup> :	Vertical
Adjustment:	Manual adjustment, potentiometer
Output function:	Light/dark switching

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

**Mechanics/electronics**

Supply voltage V <sub>s</sub> <sup>1)</sup> :	DC 10 V ... 30 V
Ripple <sup>2)</sup> :	≤ 5 Vpp
Power consumption <sup>3)</sup> :	< 80 mA
Switching frequency <sup>4)</sup> :	10 kHz
Response time <sup>5)</sup> :	50 µs
Output type:	NPN: HIGH = approx. V <sub>S</sub> / LOW ≤ 2 V

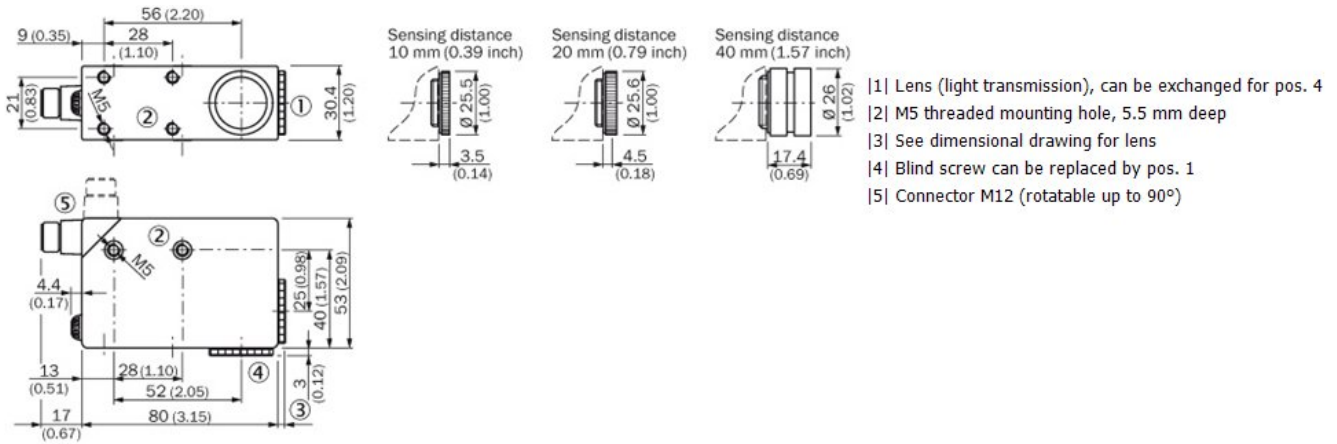
Switching mode:	NPN
Time delay:	20 ms
Connection type:	Connector M12, 4-pin
Protection class <sup>6)</sup> :	II
Circuit protection:	Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	Ca. 400 g
Housing material:	Zinc diecast
Output current I <sub>max.</sub> :	100 mA

1) Limit values: operation in short-circuit protected network max. 8 A <sup>2)</sup> May not exceed or fall short of V<sub>S</sub> tolerances <sup>3)</sup> Without load <sup>4)</sup> With light/dark ratio 1:1 <sup>5)</sup> Signal transit time with resistive load <sup>6)</sup> Reference voltage DC 50 V

### Ambient data

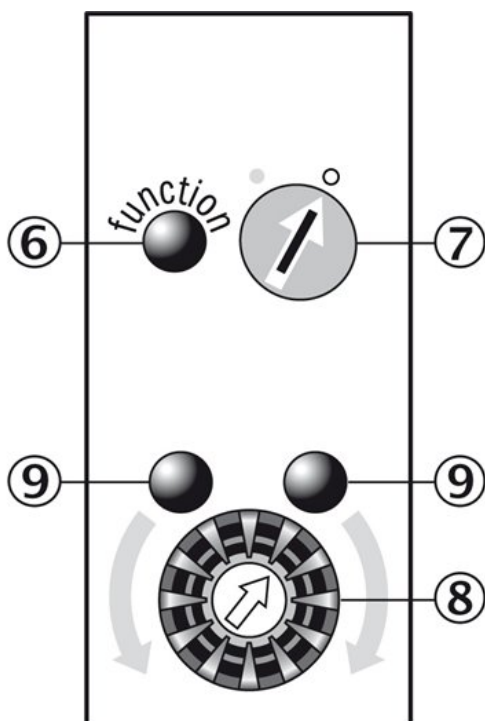
Ambient temperature:	Operation: -10 ... 55 °C Storage: -25 ... 75 °C
Shock load:	According to IEC 60068

### Dimensional drawing



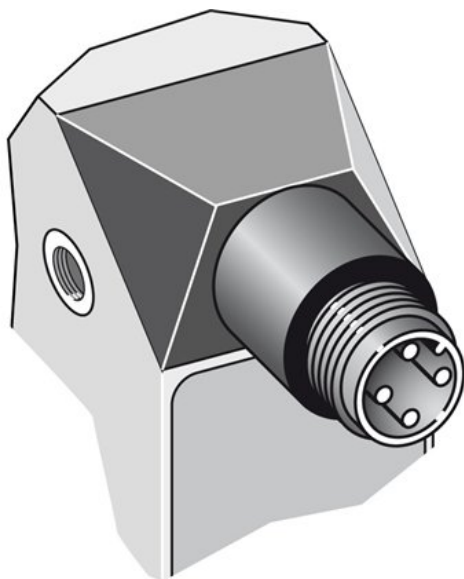
All dimensions in mm (inch)

## Adjustments

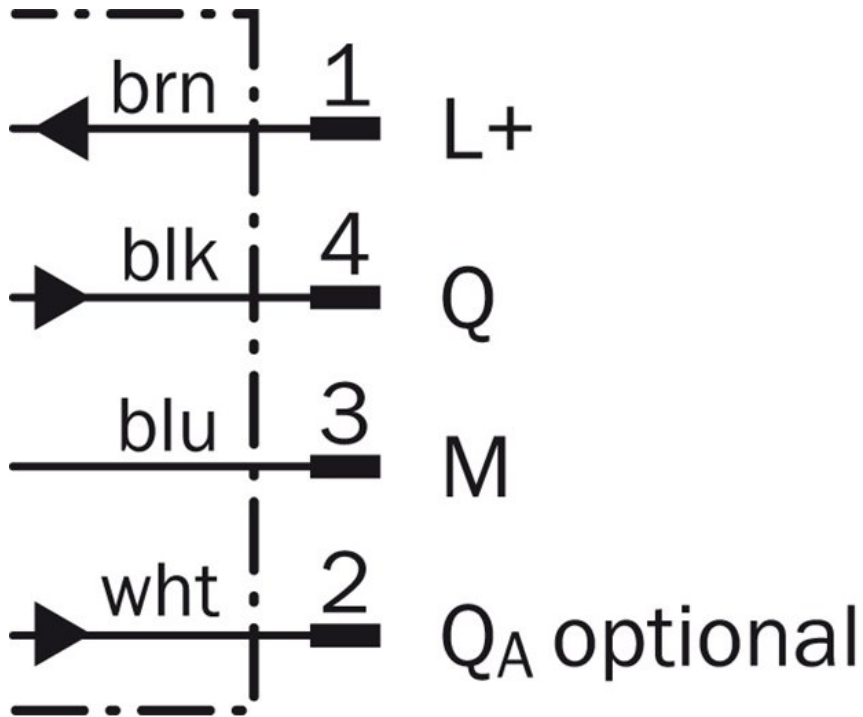


- |6| Function signal indicator (yellow)
- |7| Pre-selection switch (light/dark switching)
- |8| Switching threshold adjustment
- |9| Adjustment indicators (green)

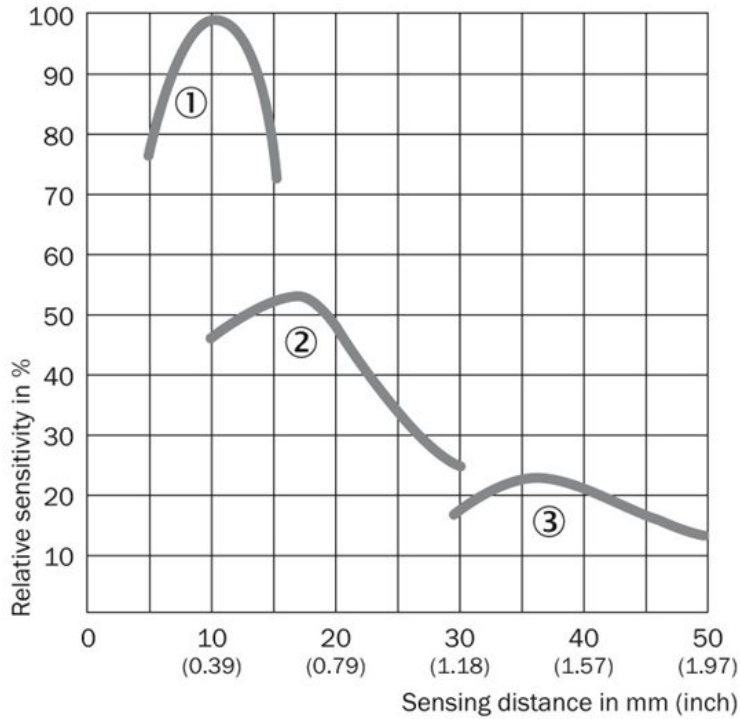
## Connection type



Connection diagram



Sensing distance



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

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