





Illustration may differ

### Ordering information

Type	part no.
KT5G-2P1411	1018040

Other models and accessories → [www.sick.com/KT5](http://www.sick.com/KT5)

### Detailed technical data

#### Features

<b>Housing design</b>	Middle
<b>Dimensions (W x H x D)</b>	30.4 mm x 53 mm x 80 mm
<b>Light source</b>	LED, visible green light <sup>1)</sup>
<b>Light emission</b>	Long and short side of housing, exchangeable
<b>Light spot size</b>	1.1 mm x 4.2 mm
<b>Light spot direction</b>	Vertical <sup>2)</sup>
<b>Wave length</b>	520 nm
<b>Sensing distance</b>	≤ 50 mm <sup>3)</sup>
<b>Adjustment</b>	Potentiometer
<b>Output function</b>	Light/dark switching
<b>Special features</b>	without timer

<sup>1)</sup> Average service life: 100,000 h at T<sub>J</sub> = +25 °C.

<sup>2)</sup> In relation to long side of housing.

<sup>3)</sup> From leading edge of lens.

#### Electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	≤ 5 V <sub>pp</sub> <sup>2)</sup>
<b>Current consumption</b>	< 80 mA <sup>3)</sup>
<b>Switching frequency</b>	10 kHz <sup>4)</sup>
<b>Response time</b>	50 μs

<sup>1)</sup> Limit values when operated in short-circuit protected network: max. 8 A.

<sup>2)</sup> May not fall below or exceed U<sub>y</sub> tolerances.

<sup>3)</sup> Without load.

<sup>4)</sup> With light/dark ratio 1:1.

<sup>5)</sup> Short-circuit-proof.

<sup>6)</sup> Reference voltage DC 50 V.

<b>Switching output</b>	PNP
<b>Switching output (voltage)</b>	PNP: HIGH = $U_V \leq 2 \text{ V}$ / LOW approx. 0 V
<b>Switching mode</b>	Light/dark switching
<b>Output current <math>I_{\text{max}}</math></b>	100 mA <sup>5)</sup>
<b>Time delay</b>	None
<b>Protection class</b>	II <sup>6)</sup>
<b>Circuit protection</b>	$U_V$ connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
<b>Connection type</b>	Male connector M12, 4-pin

1) Limit values when operated in short-circuit protected network: max. 8 A.

2) May not fall below or exceed  $U_V$  tolerances.

3) Without load.

4) With light/dark ratio 1:1.

5) Short-circuit-proof.

6) Reference voltage DC 50 V.

## Mechanics

<b>Housing material</b>	Zinc diecast
<b>Weight</b>	400 g

## Ambient data

<b>Ambient operating temperature</b>	-10 °C ... +55 °C
<b>Ambient temperature, storage</b>	-25 °C ... +75 °C
<b>Shock load</b>	According to IEC 60068
<b>Enclosure rating</b>	IP67
<b>UL File No.</b>	NRKH.E181493 & NRKH7.E181493

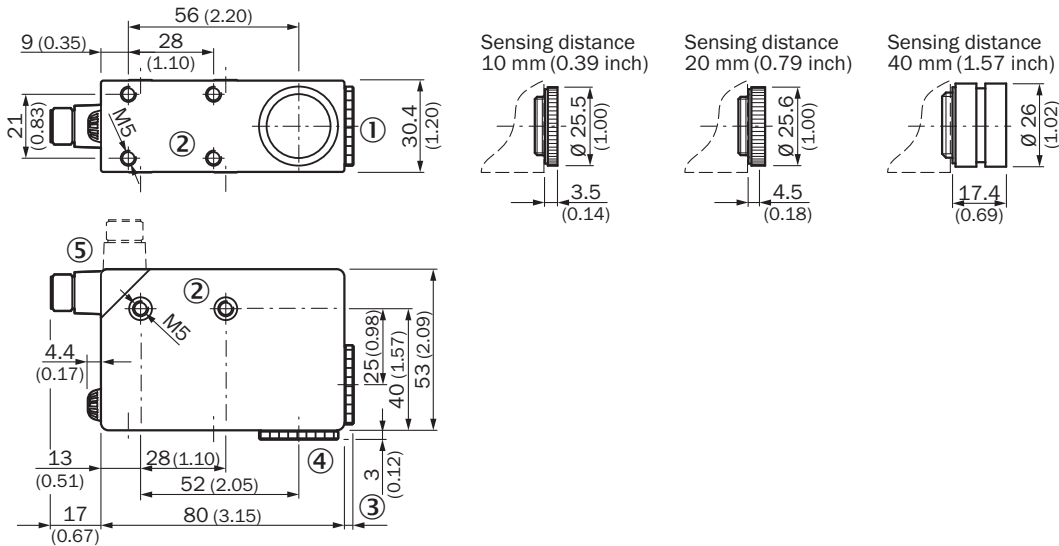
## Classifications

<b>ECLASS 5.0</b>	27270906
<b>ECLASS 5.1.4</b>	27270906
<b>ECLASS 6.0</b>	27270906
<b>ECLASS 6.2</b>	27270906
<b>ECLASS 7.0</b>	27270906
<b>ECLASS 8.0</b>	27270906
<b>ECLASS 8.1</b>	27270906
<b>ECLASS 9.0</b>	27270906
<b>ECLASS 10.0</b>	27270906
<b>ECLASS 11.0</b>	27270906
<b>ECLASS 12.0</b>	27270906
<b>ETIM 5.0</b>	EC001820
<b>ETIM 6.0</b>	EC001820
<b>ETIM 7.0</b>	EC001820
<b>ETIM 8.0</b>	EC001820

UNSPSC 16.0901

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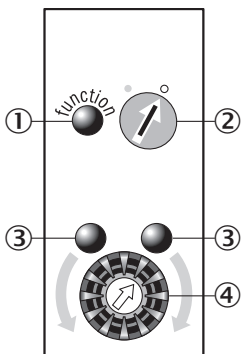
### Dimensional drawing KT5-2 Potentiometer



Dimensions in mm (inch)

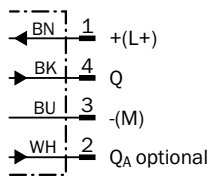
- ① Lens (light transmission), can be exchanged for pos. 4
- ② M5 threaded mounting hole, 5.5 mm deep
- ③ see dimensional drawings of lenses
- ④ Blind screw can be replaced by pos. 1
- ⑤ Connector M12 (rotatable up to 90°)

### Adjustments KT5-2 Potentiometer



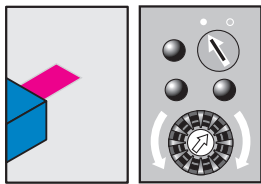
- ① Function signal indicator (yellow)
- ② Pre-selection switch (light/dark switching)
- ③ Switching threshold adjustment
- ④ Installation aid (green)

## Connection diagram Cd-327



## Concept of operation KT5-2 Potentiometer

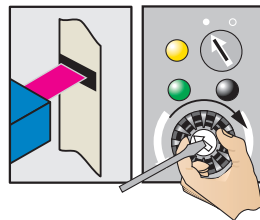
### 1. Select switching function (light/dark)



Turn the rotary switch to the desired position.

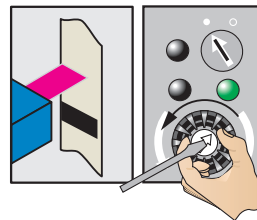
- = light switching
- = dark switching

### 2. Position mark

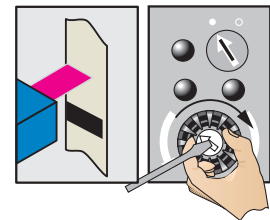


Turn potentiometer in the direction shown (green LED illuminates) until the yellow LED status changes and the green LED opposite illuminates.

### 3. Position background

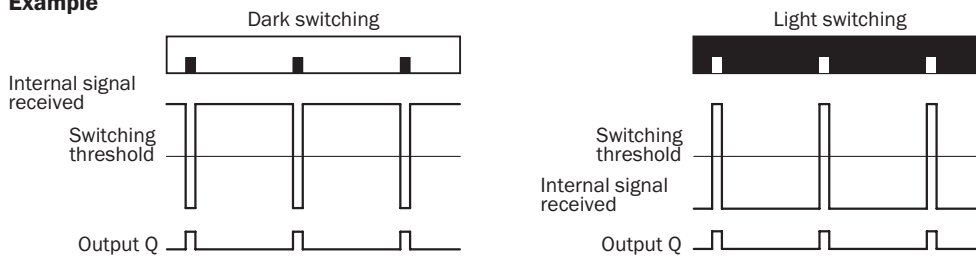


Gradually turn back the potentiometer (count the number of turns) until the yellow LED changes status again and illuminates.



Turn the potentiometer forward again by half the number of turns to ensure that the switching threshold is optimally set.

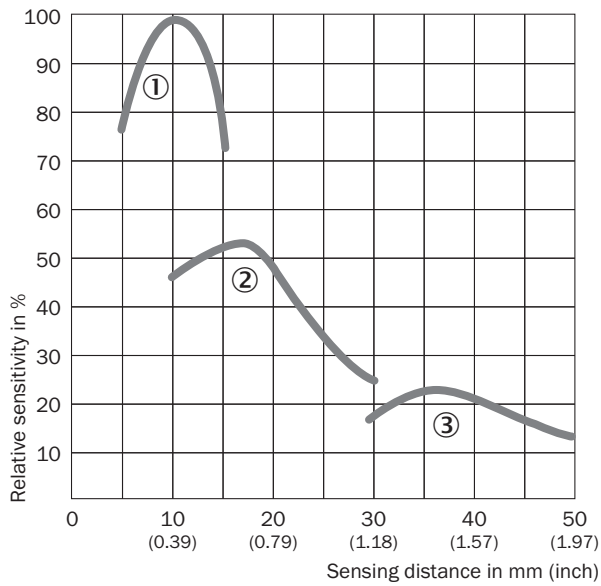
### Example



### Switching characteristics

The switching threshold is set in the center between the background and the mark.






### Sensing distance





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

### Recommended accessories

Other models and accessories → [www.sick.com/KT5](http://www.sick.com/KT5)

	Brief description	Type	part no.
<b>Mounting systems</b>			
	<ul style="list-style-type: none"> <li><b>Description:</b> Plate G for universal clamp bracket</li> <li><b>Material:</b> Steel</li> <li><b>Details:</b> Steel, zinc coated</li> <li><b>Items supplied:</b> Universal clamp (2022726), mounting hardware</li> <li><b>Usable for:</b> W34, LUT3, KT5-2, KT10, CS8, W24-2, K8, K8</li> </ul>	BEF-KHS-G01	2022464
	<ul style="list-style-type: none"> <li><b>Description:</b> Plate K for universal clamp bracket</li> <li><b>Material:</b> Steel</li> <li><b>Details:</b> Steel, zinc coated</li> <li><b>Items supplied:</b> Universal clamp (2022726), mounting hardware</li> <li><b>Usable for:</b> W11-2, W12-3, W14-2, W18-3, W23-2, W24-2, W27-3, W30, W32, W34, W36, PL50A, PL80A, P250, UC12, LUT3, K2, KT5-2, K8, CS8, DT2, DS30, DS40, W12-2 Laser, W16, W26, KT5</li> </ul>	BEF-KHS-K01	2022718
<b>reflectors and optics</b>			
	<ul style="list-style-type: none"> <li><b>Description:</b> Lens, 20 mm sensing distance</li> </ul>	OBJ-212	1011506
	<ul style="list-style-type: none"> <li><b>Description:</b> Lens, 40 mm sensing distance</li> </ul>	OBJ-210	2010945
	<ul style="list-style-type: none"> <li><b>Description:</b> Lens, 10 mm sensing distance</li> </ul>	OBJ-211	1004936

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> <li><b>Description:</b> Unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection systems:</b> Screw-type terminals</li> <li><b>Permitted cross-section:</b> ≤ 0.75 mm<sup>2</sup></li> </ul>	DOS-1204-G	6007302
	<ul style="list-style-type: none"> <li><b>Description:</b> Unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Connection systems:</b> Screw-type terminals</li> <li><b>Permitted cross-section:</b> ≤ 0.75 mm<sup>2</sup></li> </ul>	DOS-1204-W	6007303
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 2 m, 4-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YF2A14-020VB3XLEAX	2096234
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 4-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YF2A14-050VB3XLEAX	2096235
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 10 m, 4-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YF2A14-100VB3XLEAX	2096236
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 15 m, 4-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YF2A14-150VB3XLEAX	2096237
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 2 m, 4-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YG2A14-020VB3XLEAX	2095895
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 4-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YG2A14-050VB3XLEAX	2095897
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 10 m, 4-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YG2A14-100VB3XLEAX	2095898
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 0.6 m, 4-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YG2A14-C60VB3XLEAX	2145709
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 1 m, 4-wire, PVC</li> </ul>	YG2A14-010VB3XLEAX	2145710

	Brief description	Type	part no.
	<ul style="list-style-type: none"> <li>• <b>Application:</b> Untaminated zones, Zones with chemicals</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 0.6 m, 4-wire, PVC</li> <li>• <b>Application:</b> Untaminated zones, Zones with chemicals</li> </ul>	<p>YF2A14-C60VB3XLEAX</p>	<p>2145707</p>
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 1 m, 4-wire, PVC</li> <li>• <b>Application:</b> Untaminated zones, Zones with chemicals</li> </ul>	<p>YF2A14-010VB3XLEAX</p>	<p>2145708</p>

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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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