



Contrast sensors  
KT5, KT5-2 Teach-in

KT5W-2P2116



**Model Name** > [KT5W-2P2116](#)  
**Part No.** > [1022312](#)



**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 <sup>1)</sup> :	10 mm
Sensing distance tolerance:	± 3 mm
Light source <sup>2)</sup> , <sup>3)</sup> :	LED red, green, blue
Light emission:	Long and short side of housing, exchangeable
Light spot size:	1.5 mm x 5.5 mm
Light spot direction <sup>4)</sup> :	Horizontal
Adjustment:	Static 2-point teach-in

<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: 470 nm, 525 nm, 640 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:	PNP: HIGH = V <sub>S</sub> - ≤ 2 V / LOW approx. 0 V
Switching mode:	PNP

Input, teach-in (ET):  
 Retention time (ET):  
 Protection class <sup>6)</sup>:  
 Circuit protection:

PNP., Run:  $U < 2 \text{ V}$ , Teach:  $U = 10 \text{ V} \dots < U_V$   
 25 ms, non-volatile memory  
 II  
 Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected

Enclosure rating:  
 Weight:  
 Housing material:  
 Output current  $I_{\text{max}}$  .:

IP 67  
 Ca. 400 g  
 Zinc diecast  
 100 mA

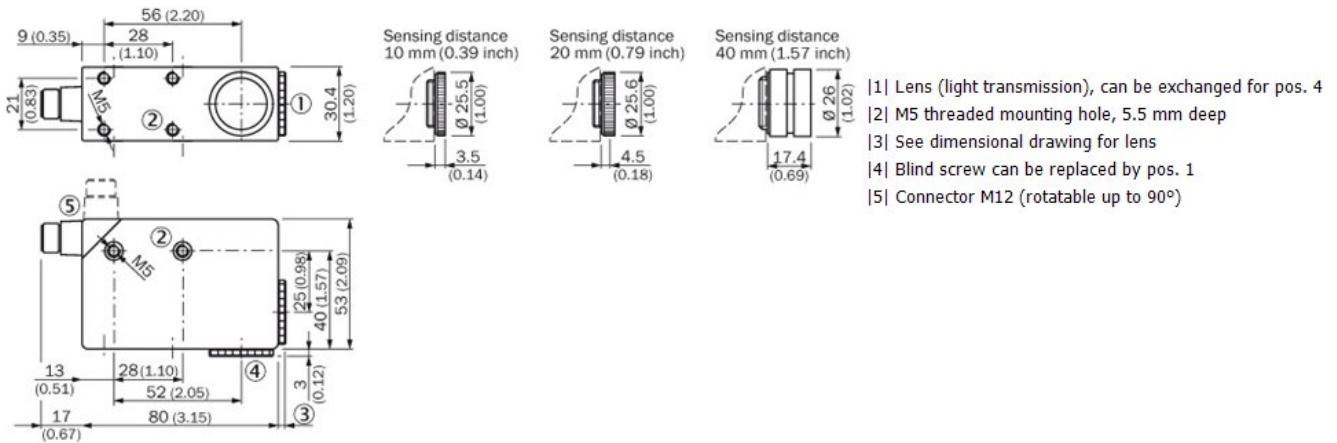
<sup>1)</sup> Limit values: operation in short-circuit protected network max. 8 A <sup>2)</sup> May not exceed or fall short of  $V_S$  tolerances <sup>3)</sup> Without load <sup>4)</sup> With light/dark ratio 1:1 <sup>5)</sup>  
<sup>6)</sup> Reference voltage DC 50 V  
 Signal transit time with resistive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

**Ambient data**

Ambient temperature:  
 Shock load:

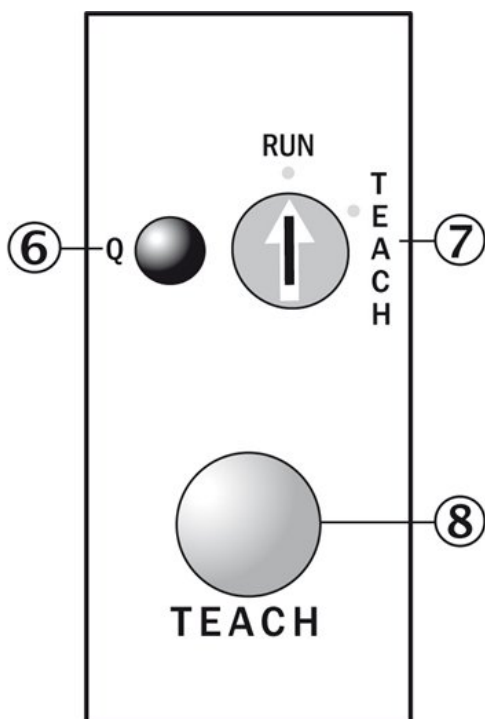
Operation:  $-10 \dots 55 \text{ }^\circ\text{C}$ , Storage:  $-25 \dots 75 \text{ }^\circ\text{C}$   
 According to IEC 60068

**Dimensional drawing**



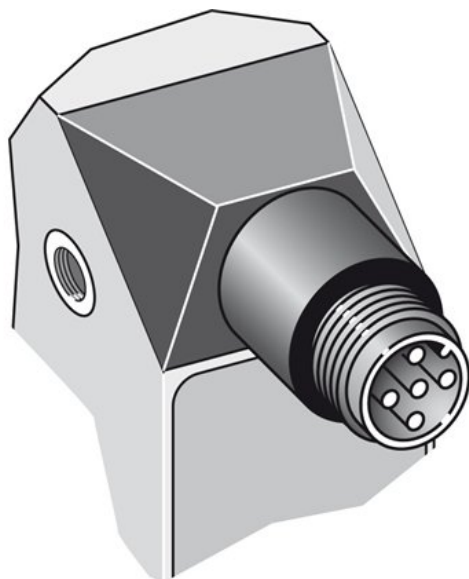
All dimensions in mm (inch)

## Adjustments

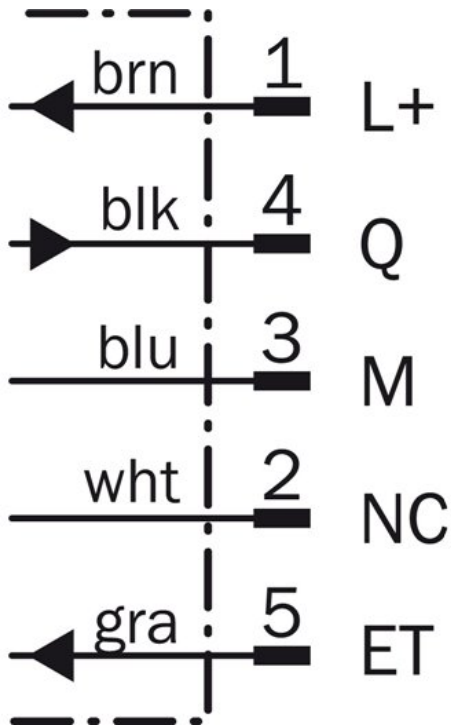


- |6| Function signal indicator (yellow)
- |7| Pre-selection switch
- |8| Teach-in button

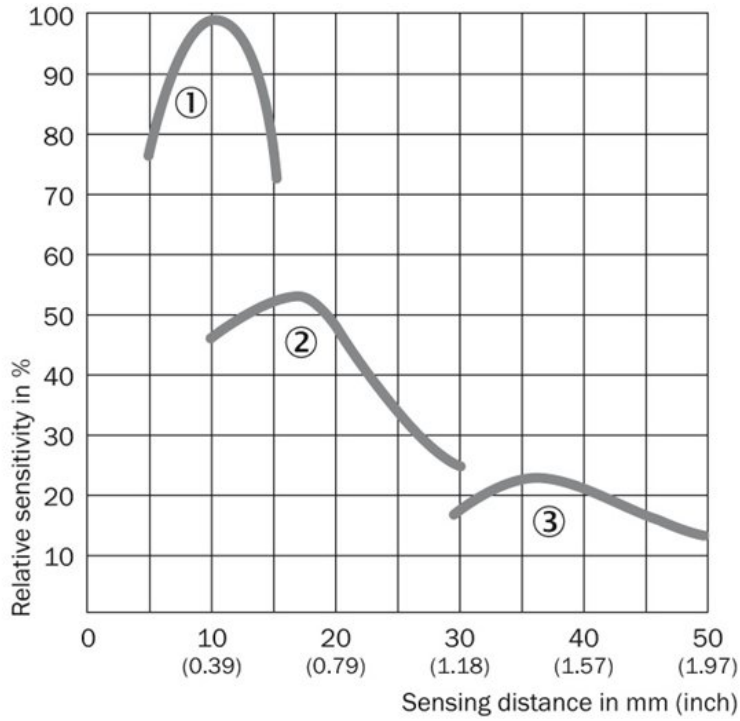
## Connection type



Connection diagram



Sensing distance



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

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