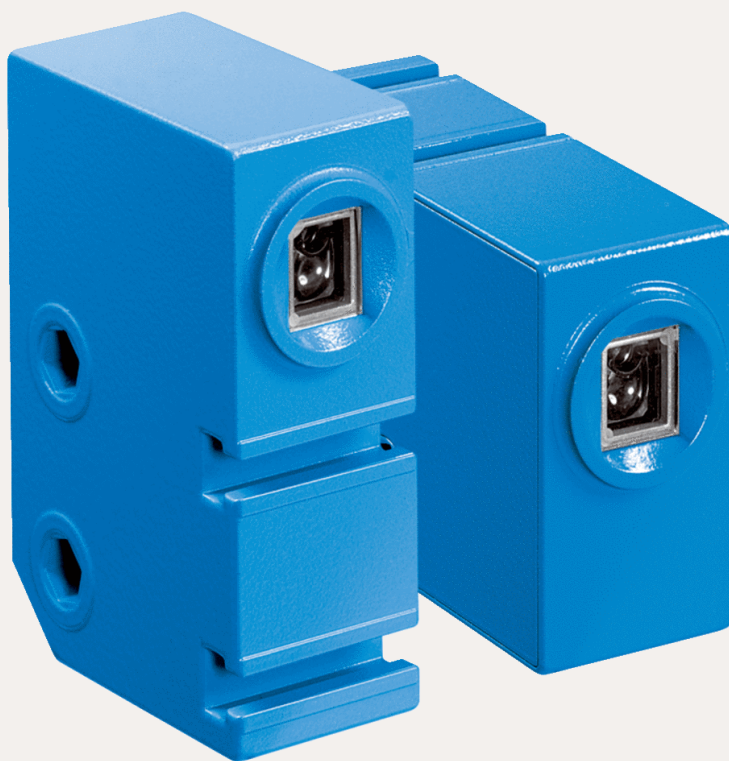


SICK.COM



DATA SHEET

# KT6W-P5116

KT6  
Contrast sensors

# SICK

Sensor Intelligence



Illustration may differ

CONTRAST SENSORS

KT6W-P5116

ORDERING INFORMATION

| Type       | part no. |
|------------|----------|
| KT6W-P5116 | 1027500  |

Further device versions and accessories at [www.sick.com/KT6](http://www.sick.com/KT6)

DETAILED TECHNICAL DATA

FEATURES

|                            |                         |
|----------------------------|-------------------------|
| Housing design             | Middle                  |
| Dimensions (W x H x D)     | 30.4 mm x 53 mm x 80 mm |
| Light source               | LED, RGB <sup>1)</sup>  |
| Light emission             | Short device side       |
| Light spot size            | 1.5 mm x 6.5 mm         |
| Light spot direction       | Vertical <sup>2)</sup>  |
| Wave length                | 640 nm, 525 nm, 470 nm  |
| Sensing distance           | ≤ 10 mm <sup>3)</sup>   |
| Sensing distance tolerance | ± 3 mm                  |

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

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

<sup>3)</sup> From front edge of protection ring.

ELECTRONICS

|                     |                                   |
|---------------------|-----------------------------------|
| Supply voltage      | 10 V DC ... 30 V DC <sup>1)</sup> |
| Ripple              | ≤ 5 V <sub>pp</sub> <sup>2)</sup> |
| Current consumption | < 40 mA <sup>3)</sup>             |

<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>v</sub> tolerances.

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

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

<sup>5)</sup> Reference voltage DC 32 V.

|                                 |                                                                                                                     |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Switching frequency             | 5 kHz <sup>4)</sup>                                                                                                 |
| Response time                   | 100 µs                                                                                                              |
| Switching output                | PNP                                                                                                                 |
| Switching output (voltage)      | PNP: HIGH = $U_v \leq 2 \text{ V}$ / LOW approx. 0 V                                                                |
| Output current $I_{\text{max}}$ | 100 mA                                                                                                              |
| Retention time (ET)             | 25 ms, non-volatile memory                                                                                          |
| Time delay                      | None                                                                                                                |
| Protection class                | II <sup>5)</sup>                                                                                                    |
| Circuit protection              | $U_v$ connections, reverse polarity protected<br>Output Q short-circuit protected<br>Interference pulse suppression |
| Connection type                 | Male connector M12, 4-pin                                                                                           |

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

<sup>2)</sup> May not fall below or exceed  $U_v$  tolerances.

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

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

<sup>5)</sup> Reference voltage DC 32 V.

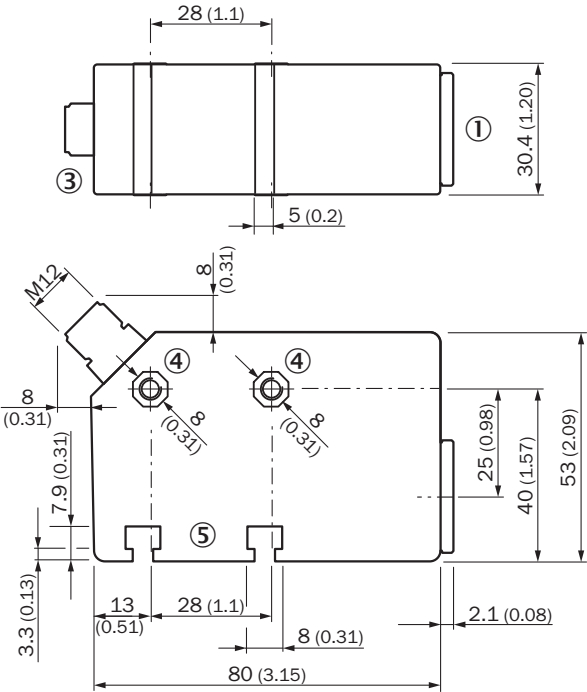
## MECHANICS

|                  |              |
|------------------|--------------|
| Housing material | Zinc diecast |
| Weight           | 400 g        |

## AMBIENT DATA

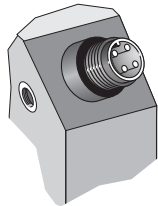
|                               |                        |
|-------------------------------|------------------------|
| Ambient operating temperature | -10 °C ... +55 °C      |
| Ambient temperature, storage  | -25 °C ... +75 °C      |
| Shock load                    | According to IEC 60068 |
| Enclosure rating              | IP67                   |

DIMENSIONAL DRAWING KT6W-2X5XXX

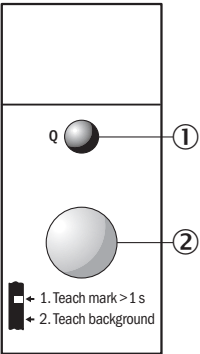


- Dimensions in mm (inch)
- ① Lens (light transmission), edge side
  - ③ Male connector M12
  - ④ SW8 mounting hole for M5 nut
  - ⑤ SW8 T-slot for M5 nut

PINOUTS

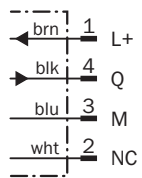


ADJUSTMENTS

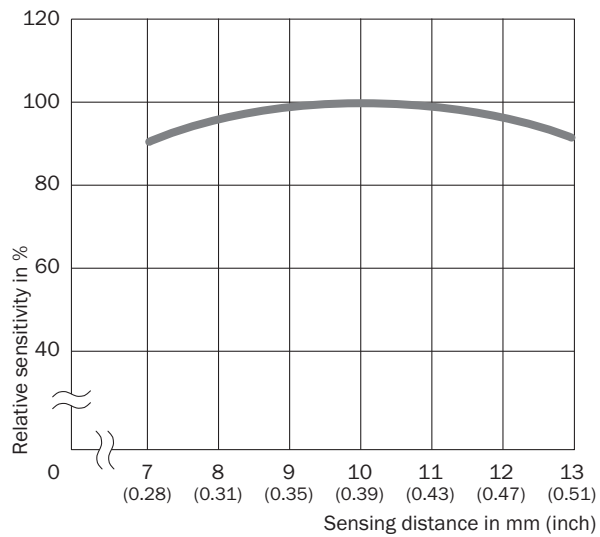


- ① function indicator
- ② Teach-in button

## CONNECTION DIAGRAM



## SENSING DISTANCE



Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at [www.sick.com/1027500](http://www.sick.com/1027500)



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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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