



## Contrast sensors NT6, NT6

NT6-04022



**Model Name** > [NT6-04022](#)  
**Part No.** > [1006475](#)



*Illustration may differ*

#### At a glance

- RGB, white LEDs and red lasers
- Bar graph display visually indicates contrast performance (KT5, KT10)
- High switching frequency
- Various teach-in and manual potentiometer versions to meet individual requirements
- Automatic gloss adjustment for highly reflective materials
- A range of sensing distances and light spots for numerous applications
- Tough, compact metal housing

#### Your benefits

- Able to process all packaging materials (yellow mark/white background), resulting in high machine throughput
- Reliable operation, even with jittering webs and high-gloss materials
- High positioning accuracy improves packaging quality
- Simple teach-in and highly visible light spot ensure easy setup
- Simple to integrate into machines due to compact design
- Interchangeable lenses for maximum mounting flexibility
- A range of sensing distances, light spot directions and a 90° rotatable plug enables optimal integration
- Application-specific teach-in processes provide maximum flexibility



#### Features

|                                      |                                              |
|--------------------------------------|----------------------------------------------|
| Dimensions (L x W x H):              | 64 mm x 80 mm x 30.4 mm                      |
| Sensing distance:                    | 9 mm                                         |
| Sensing distance tolerance:          | ± 2 mm                                       |
| Light source <sup>1)</sup> :         | LED red, green                               |
| Light emission:                      | Long and short side of housing, exchangeable |
| Light spot size:                     | 1.5 mm x 4 mm (red), 1.5 mm x 5 mm (green)   |
| Light spot direction <sup>2)</sup> : | Vertical                                     |
| Adjustment:                          | Manual adjustment, potentiometer             |

<sup>1)</sup> Average service life of 10,000 h at  $T_A = +25\text{ °C}$  <sup>2)</sup> In relation to long side of housing

#### Mechanics/electronics

|                        |                  |
|------------------------|------------------|
| Supply voltage $V_s$ : | DC 10 V ... 30 V |
| Ripple:                | ≤ 5 Vpp          |

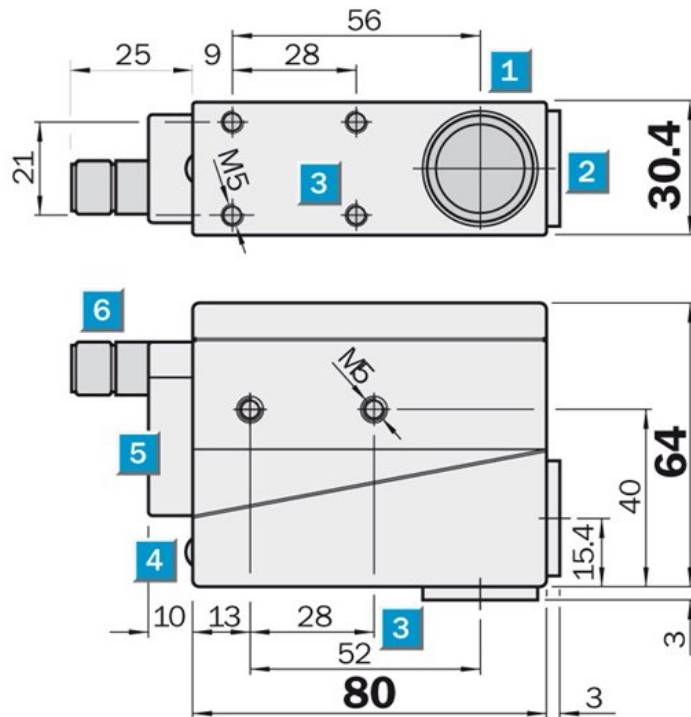
|                                     |                                                                                                       |
|-------------------------------------|-------------------------------------------------------------------------------------------------------|
| Power consumption <sup>1)</sup> :   | < 80 mA                                                                                               |
| Switching frequency <sup>2)</sup> : | 10 kHz                                                                                                |
| Response time <sup>3)</sup> :       | > 50 µs                                                                                               |
| Output type:                        | PNP: HIGH = VS- ≤ 2 V / LOW approx. 0 V                                                               |
| Analog output QA:                   | 0.15 V ... 6 V                                                                                        |
| Connection type:                    | 2 m cable , 4 x 0.34 mm, shielded, PVC, diameter 6 mm <sup>4)</sup>                                   |
| Circuit protection:                 | Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected |
| Enclosure rating:                   | IP 67                                                                                                 |
| Weight:                             | Approx. 540 g (with cable)                                                                            |
| Housing material:                   | Die-cast zinc                                                                                         |
| Output current I <sub>max</sub> :   | 200 mA                                                                                                |

<sup>1)</sup> Without load   <sup>2)</sup> With light/dark ratio 1:1   <sup>3)</sup> Signal transit time with resistive load   <sup>4)</sup> Do not bend below 0 °C

### Ambient data

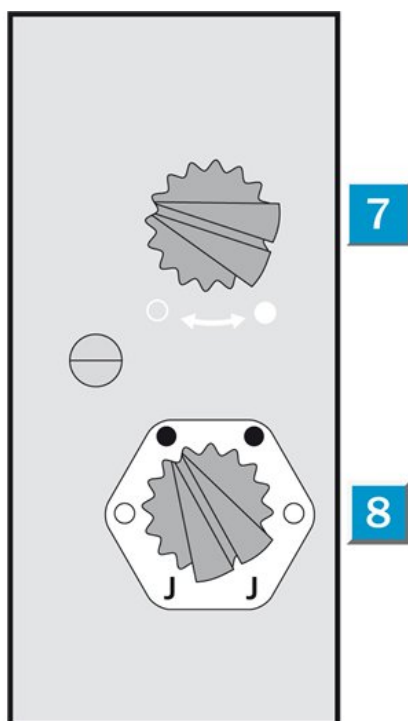
|                      |                                                |
|----------------------|------------------------------------------------|
| Ambient temperature: | Operation: 0 ... 50 °C, Storage: -25 ... 75 °C |
| Shock load:          | According to IEC 60068                         |

### Dimensional drawing



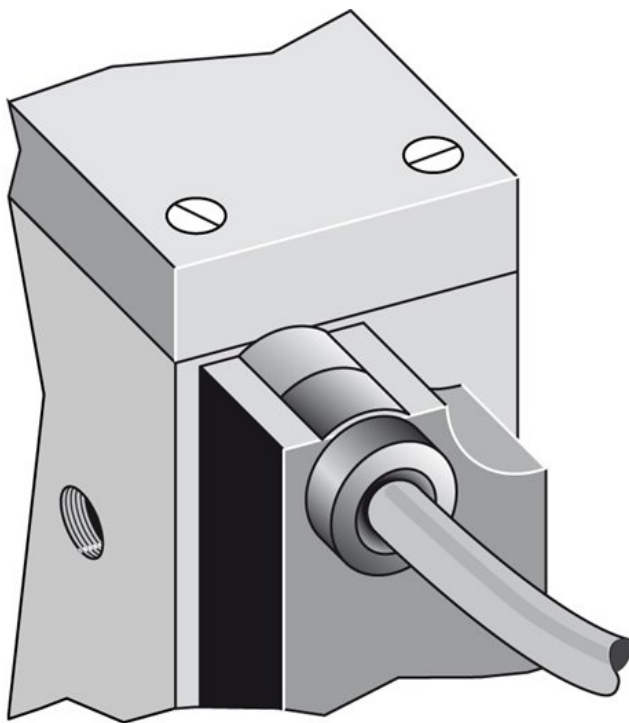
## Adjustments

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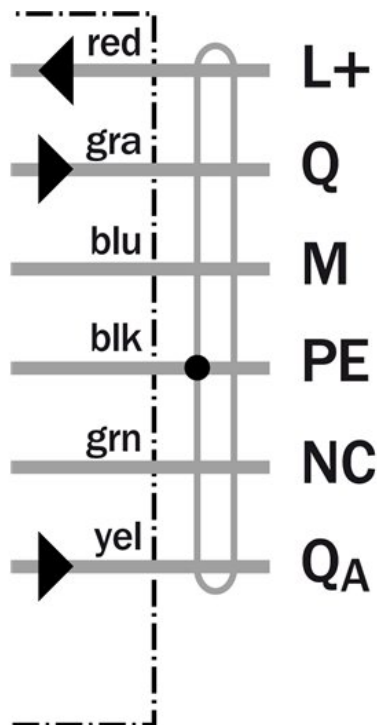


## Connection type

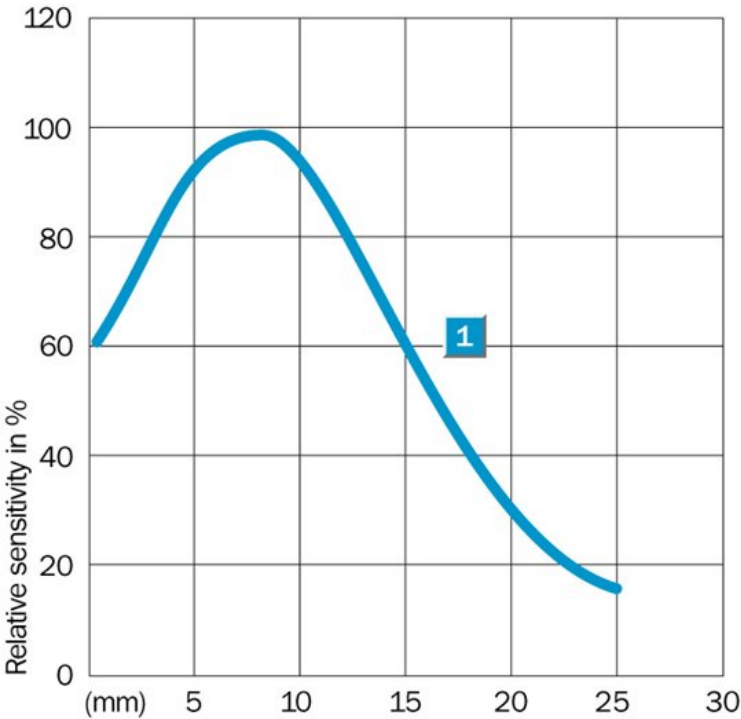
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Connection diagram



Characteristic curve



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