



## Contrast sensors NT6, NT6

NT6-03042



**Model Name** > [NT6-03042](#)  
**Part No.** > [1007308](#)



*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:                    | 16 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 Vs: | DC 10 V ... 30 V |
| Ripple:            | ≤ 5 Vpp          |

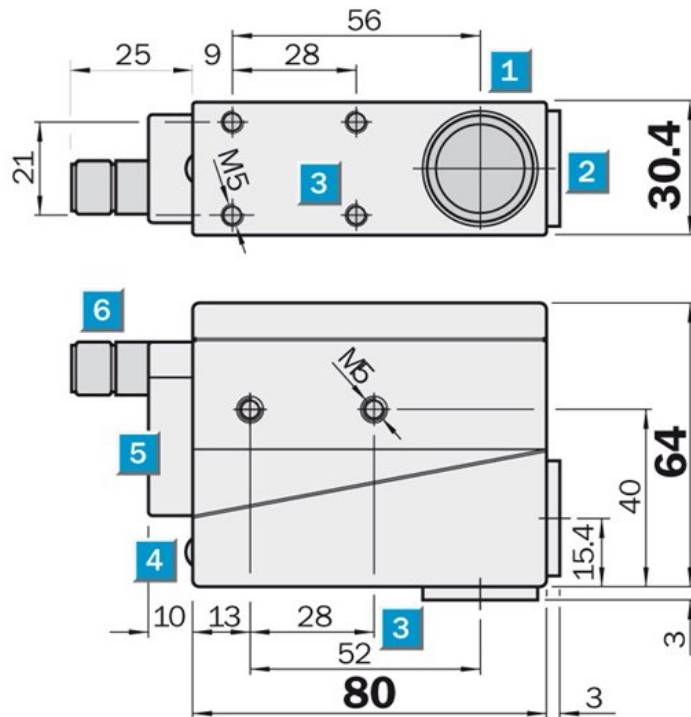
|                                     |                                                                                                       |
|-------------------------------------|-------------------------------------------------------------------------------------------------------|
| Power consumption <sup>1)</sup> :   | < 80 mA                                                                                               |
| Switching frequency <sup>2)</sup> : | 10 kHz                                                                                                |
| Response time <sup>3)</sup> :       | > 50 µs                                                                                               |
| Output type:                        | B: HIGH = $U_v - < 2\text{ V}$ / LOW = $< 2\text{ V}$                                                 |
| 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

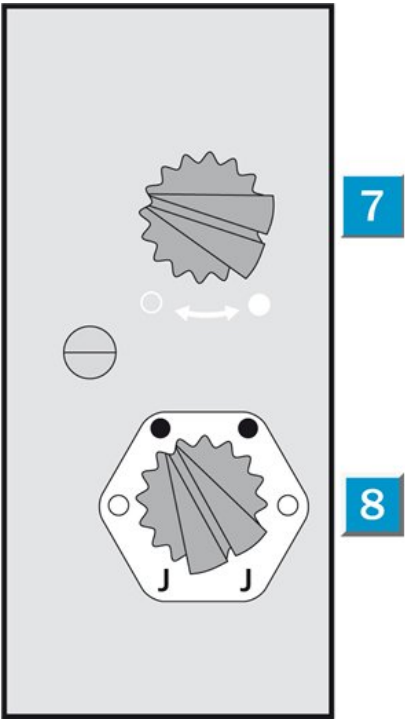
### Ambient data

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

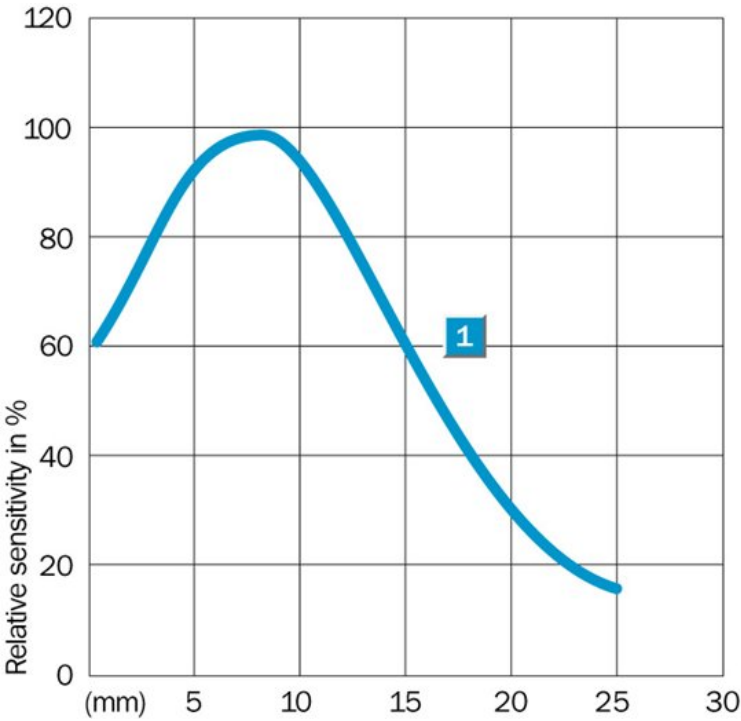
### Dimensional drawing



Adjustments



Characteristic curve



**Australia**

Phone +61 3 9457 0600  
1800 334 802 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail sac@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Ceská Republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail kundenservice@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6801000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 3358 1341  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederlands**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail austefjord@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail admin@sicksgp.com.sg

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886-2-2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 8865 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 800-325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)