



Contrast sensors  
NT6, NT6

NT6-N112



**Model Name** > [NT6-N112](#)  
**Part No.** > [1010395](#)



*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 green
Wave length:	560 nm
Light emission:	Long and short side of housing, exchangeable
Light spot size:	Ø 2.5 mm
Light spot direction <sup>2)</sup> :	Round
Adjustment:	Manual adjustment, potentiometer
Pull-up/Pull-down resistor:	22 k OHM <sup>3)</sup>

<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 <sup>3)</sup> With light/dark ratio 1:1

#### Mechanics/electronics

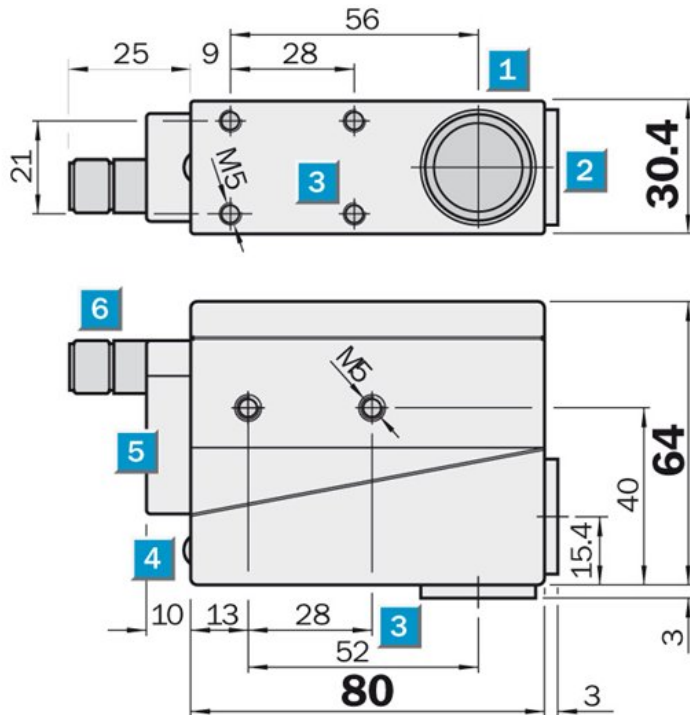
Supply voltage $V_s$ :	DC 10 V ... 30 V
Ripple:	$\leq 5$ Vpp
Power consumption <sup>1)</sup> :	$< 80$ mA
Switching frequency <sup>2)</sup> :	5 kHz
Response time <sup>3)</sup> :	$> 100$ $\mu$ s
Output type:	NPN: HIGH = approx. $V_S$ / LOW $\leq 2$ V
Switching mode:	NPN
Analog output QA:	0.15 V ... 6 V <sup>4)</sup>
Connection type:	2 m cable <sup>5)</sup> , 4 x 0.34 mm, shielded, PVC, diameter 6 mm, with plug T3104/1
Circuit protection:	Output Q short-circuit protected, Interference suppression, $V_S$ connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	Approx. 540 g (with cable)
Housing material:	Die-cast zinc
Output current $I_{max.}$ :	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>  $R_L = 10$  k OHM, values from black to high gloss <sup>5)</sup> Do not bend below 0 °C

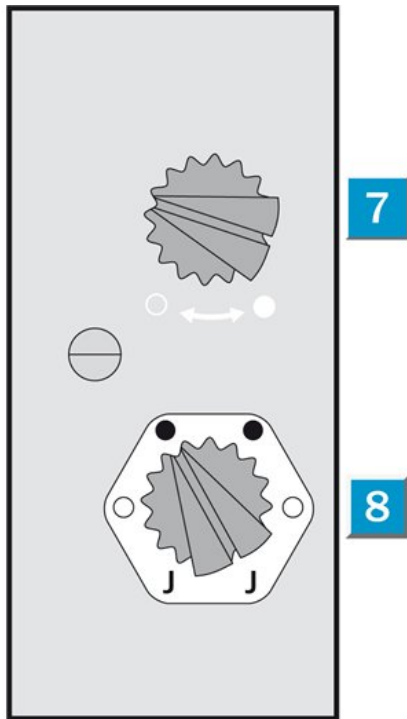
### Ambient data

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

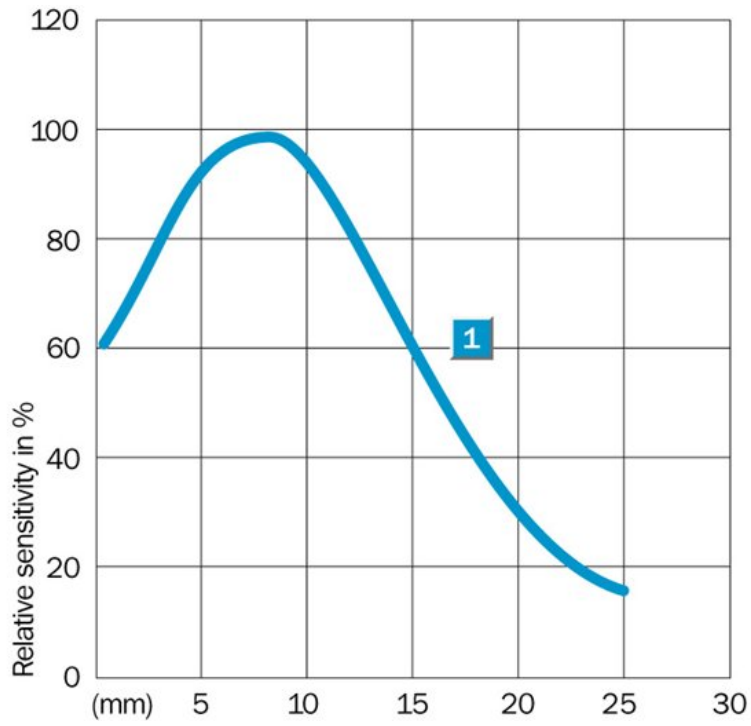
### Dimensional drawing



## 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)