SICK.COM

DATA SHEET

NT6-03012

NT6
Contrast sensors

SICK Sensor Intelligence

Illustration may differ

CONTRAST SENSORS

NT6-03012

ORDERING INFORMATION

Type	part no.
NT6-03012	1005821

Further device versions and accessories at www.sick.com/NT6

DETAILED TECHNICAL DATA

FEATURES

Housing design	Middle
Dimensions (W x H x D)	80 mm x 30.4 mm x 64 mm
Light source	LED, visible red light [1] Green
Light emission	Long and short side of housing, exchangeable
Light spot size	1.5 mm x 5 mm [2]
Light spot direction	Vertical [3]
Wave length	560 nm
Sensing distance	≤ 9 mm
Sensing distance tolerance	± 2 mm
Adjustment	Potentiometer

[1] Average service life of 10,000 h at T_A = +25 °C.

[2] With green light. 1.5 mm x 4 mm with red light.

[3] In relation to long side of housing.

ELECTRONICS

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 5 V_{pp}
Current consumption	< 80 mA [1]
Switching frequency	10 kHz [2]
Response time	> 50 µs
Switching output (voltage)	B: HIGH = Uv - < 2 V / LOW = < 2 V

[1] Without load.

[2] With light/dark ratio 1:1.

Analog output	0.15 V ... 6 V
Output current $I_{max.}$	200 mA
Time delay	None
Circuit protection	U_v connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Connection type	Cable with male connector, 2 m

[1] Without load.

[2] With light/dark ratio 1:1.

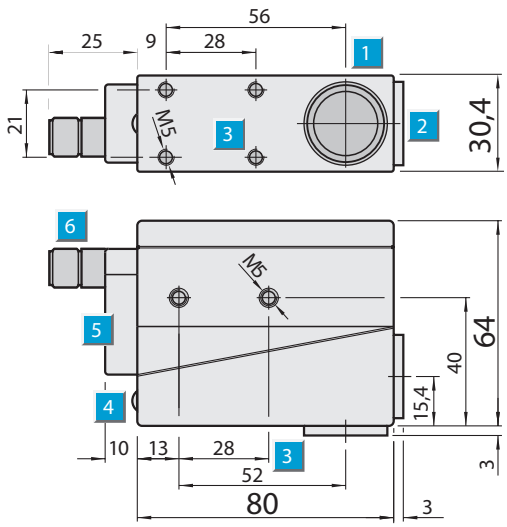
MECHANICS

Housing material	Zinc diecast

AMBIENT DATA

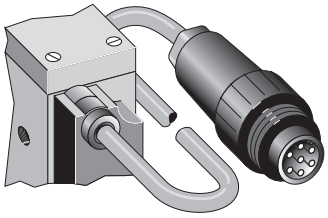
Ambient operating temperature	0 °C ... +50 °C
Ambient temperature, storage	–25 °C ... +75 °C
Shock load	According to IEC 60068
Enclosure rating	IP67

DIMENSIONAL DRAWING

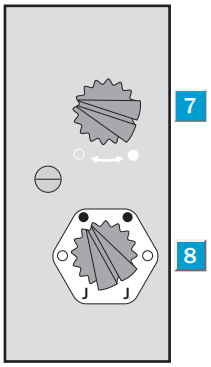


Dimensions in mm (inch)

PINOUTS

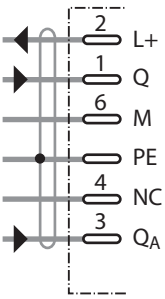


ADJUSTMENTS



⑦ adjusters for switching threshold
⑧ adjusters for operating modes

CONNECTION DIAGRAM



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/1005821

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

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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