



Contrast sensors KT10, KT10-2

KT10W-2N2115



Model Name > [KT10W-2N2115](#)
Part No. > [1029071](#)



At a glance

- Very low jitter (< 10 µs)
- Precise light spot
- Best contrast resolution thanks to RGB LED technology
- Two interchangeable light exits
- Five storage banks for settings
- Automatic drift correction
- Fast switching frequency of 25 kHz
- Easy-to-read bar graph display

Your benefits

- Very precise detection of print marks enables optimal results for packaging and printing applications
- All contrast marks, even pale yellow on white paper, can be reliably detected thanks to RGB LED technology
- Automatic drift correction helps detect difficult to see marks, such as faded print marks, enabling higher production reliability
- Reliable operation, even with high-gloss reflective surfaces, increasing throughput
- Simple teach-in via an external signal can be performed while the material is moving, enabling shorter setup time
- Long-lasting, tough metal housing



Features

Dimensions (L x W x H):	80 mm x 30.4 mm x 53 mm
Sensing distance ¹⁾ :	10 mm
Sensing distance tolerance:	± 3 mm
Light source ^{2), 3)} :	LED red, green, blue
Light emission:	Long and short side of housing, exchangeable
Light spot size:	0.8 mm x 4 mm
Light spot direction ⁴⁾ :	Horizontal
Adjustment:	Static 2-point teach-in, Dynamic teach-in (min/max)
Function:	Automatic drift correction

¹⁾ From front edge of lens ²⁾ Average service life of 100,000 h at T_A = +25 °C ³⁾ Wave length: 470 nm, 525 nm, 640 nm ⁴⁾ In relation to long side of housing

Mechanics/electronics

Supply voltage V _s ¹⁾ :	DC 10 V ... 30 V
Ripple ²⁾ :	≤ 5 Vpp

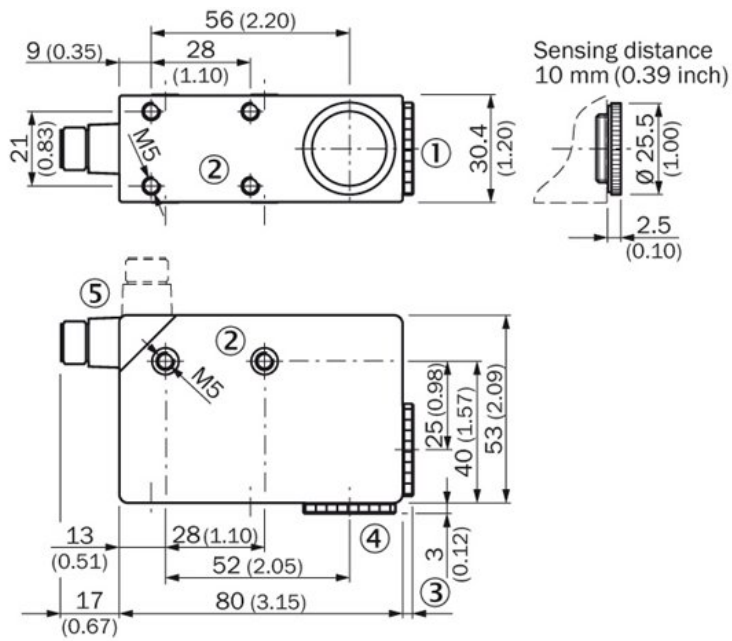
Power consumption ³⁾ :	< 120 mA
Switching frequency ⁴⁾ :	25 kHz
Response time ⁵⁾ :	20 µs
Jitter:	< 10 µs
Output type:	NPN: HIGH = approx. V_S / LOW ≤ 2 V
Switching mode:	NPN
Input, teach-in (ET):	NPN: Run: $U = 10$ V ... < U_V , Teach: $U < 2$ V
Input, blanking input (AT) ⁶⁾ :	Blanked: $U < 2$ V, Free-running: $U > 10$ V ... < U_V , NPN:
Retention time (ET):	25 ms, non-volatile memory
Time delay:	20 ms, adjustable
Connection type:	Connector M12, 5-pin
Protection class ⁷⁾ :	II
Circuit protection:	Output Q short-circuit protected, Outputs overcurrent and short-circuit protected, Interference suppression, V_S connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	Ca. 400 g
Housing material:	Die-cast zinc
Output current I_{max} :	100 mA

¹⁾ Limit values: operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ With light/dark ratio 1:1 ⁵⁾
Signal transit time with resistive load ⁶⁾ AT > 200 µs ⁷⁾ Reference voltage DC 50 V

Ambient data

Ambient temperature:	Operation: -10 ... 55 °C, Storage: -10 ... 75 °C
Shock load:	According to IEC 60068
UL File-No.:	UL No. NRKH.E181493 & cUL No. NRKH7.E181493

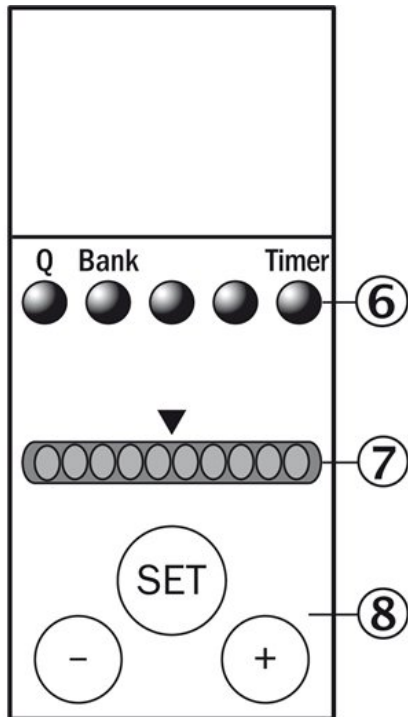
Dimensional drawing



- [1] Lens (light transmission)
- [2] M5 threaded mounting hole, 5.5 mm deep
- [3] See dimensional drawing of lens
- [4] Blind screw can be replaced by pos. 1
- [5] Connector M12 (rotatable up to 90°)

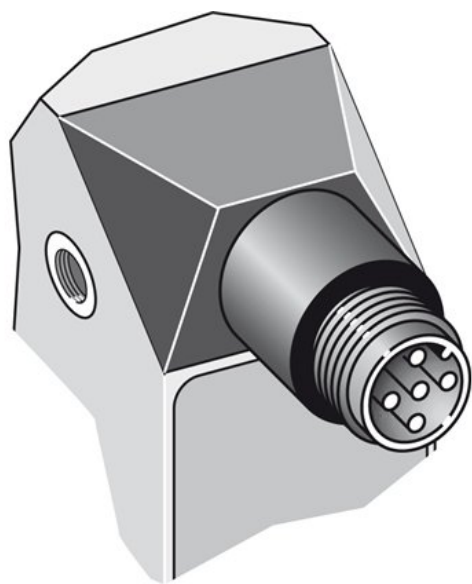
All dimensions in mm (inch)

Adjustments

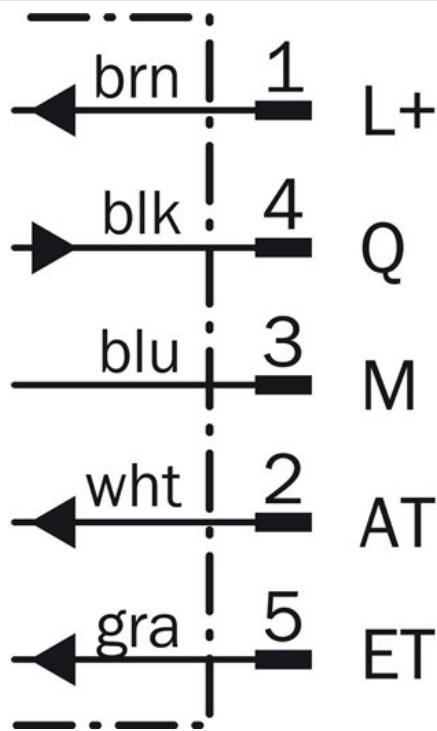


- [6] Function signal indicators (yellow)
- [7] Bar graph (green)
- [8] Teach-in button/"+" and "-" button

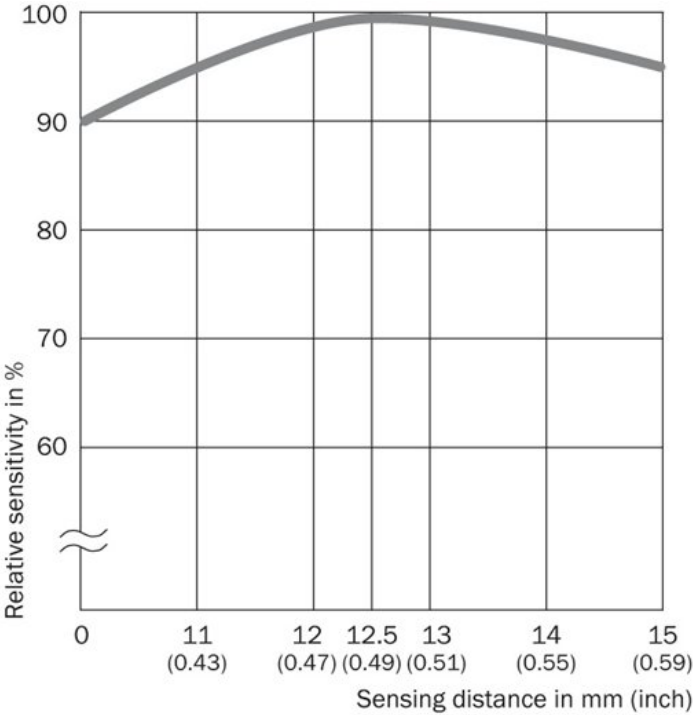
Connection type



Connection diagram



Sensing distance



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