



Contrast sensors KT3, KT3

KT3M-P1116



Model Name > [KT3M-P1116](#)
Part No. > [1044235](#)



At a glance

- Very small housing
- 3-color RGB technology or white LED
- Simple teach-in (when machine is stopped or during operation)
- Integrated switching threshold adjustment for high-gloss objects
- Reliable operation for jittering materials
- Switching frequency of 10 kHz

Your benefits

- Compact design fits in applications with limited space
- 3-color RGB technology enables universal operation with an extremely wide range of weak contrast combinations
- White LED model detects several different marks
- Simple teach-in to optimally set transmission color, switching point and surface shine
- Very good contrast resolution for detecting print marks, even where the variation between the mark and the background is minimal
- Automatic adaptation for high-gloss objects ensures high throughput
- Reliable operation for jittering materials
- Accurate positioning in rapid production processes



Features

Dimensions (L x W x H):	22 mm x 12 mm x 40 mm
Sensing distance:	12.5 mm
Sensing distance tolerance:	± 2 mm
Light source ¹⁾ , ²⁾ :	LED, white
Light spot size:	1.5 mm x 3.5 mm
Light spot direction ³⁾ :	Vertical
Adjustment:	Static 2-point teach-in

¹⁾ Average service life of 100,000 h at $T_A = +25\text{ °C}$ ²⁾ Wave length: 400 nm ... 700 nm ³⁾ In relation to long side of housing

Mechanics/electronics

Supply voltage V_s ¹⁾ :	DC 12 V ... 24 V
Ripple ²⁾ :	≤ 5 Vpp
Power consumption ³⁾ :	< 35 mA
Switching frequency ⁴⁾ :	10 kHz

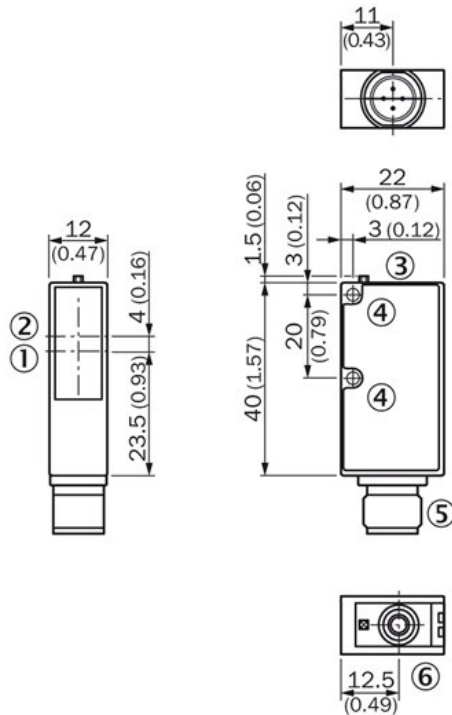
Response time ⁵⁾ :	50 μ s
Output type:	PNP: HIGH = VS- \leq 2 V/LOW approx. 0 V
Switching mode:	PNP
Input, teach-in (ET):	PNP: Teach: U = 10 V ... < U _V Run: U < 2 V
Retention time (ET):	25 ms, non-volatile memory
Connection type:	Connector M12, 4-pin
Protection class ⁶⁾ :	II
Circuit protection:	Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	Ca. 11 g
Housing material:	ABS (plastic)
Output current I _{max.} :	100 mA

¹⁾ Extreme values: 12 V (- 10 %) ... 24 V (+ 20 %). 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⁾ Reference voltage DC 50 V

Ambient data

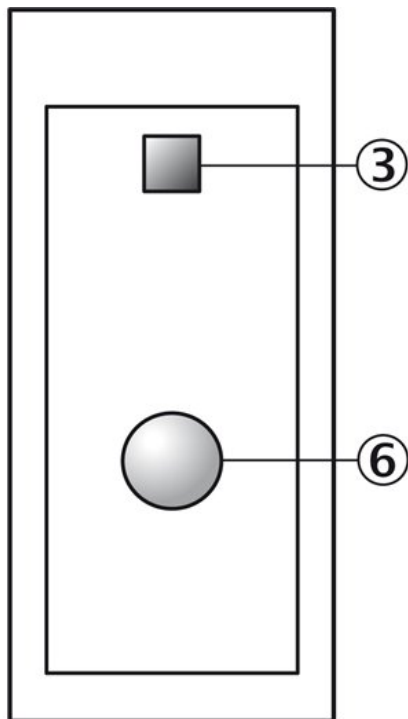
Ambient temperature:	Operation: -10 ... 55 °C Storage: -20 ... 75 °C
Shock load:	According to IEC 60068

Dimensional drawing



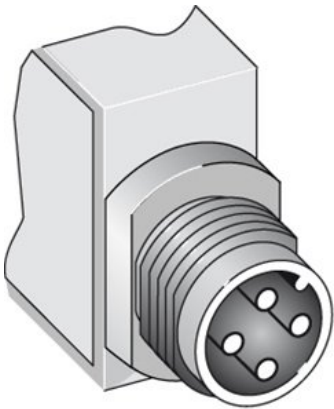
- [1] Center of optical axis, sender
- [2] Center of optical axis, receiver
- [3] LED signal strength indicator
- [4] Mounting hole, \varnothing 3 mm
- [5] Connector M12
- [6] Teach-in button

Adjustments

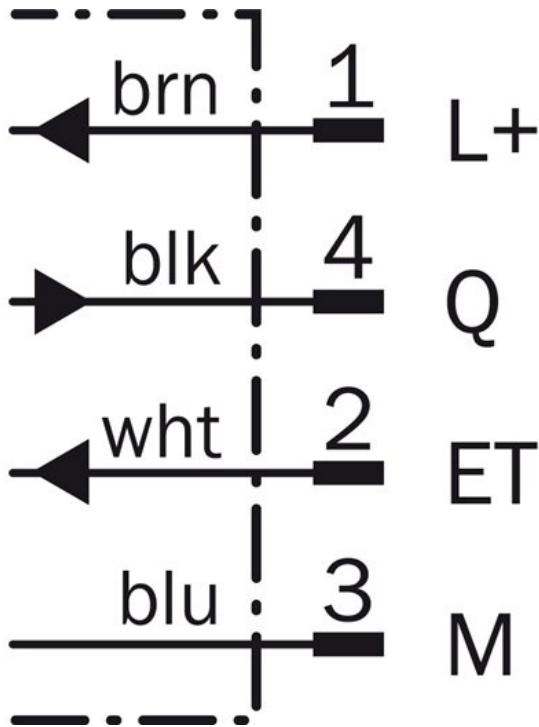


- |3| LED signal strength indicator
- |6| Teach-in button

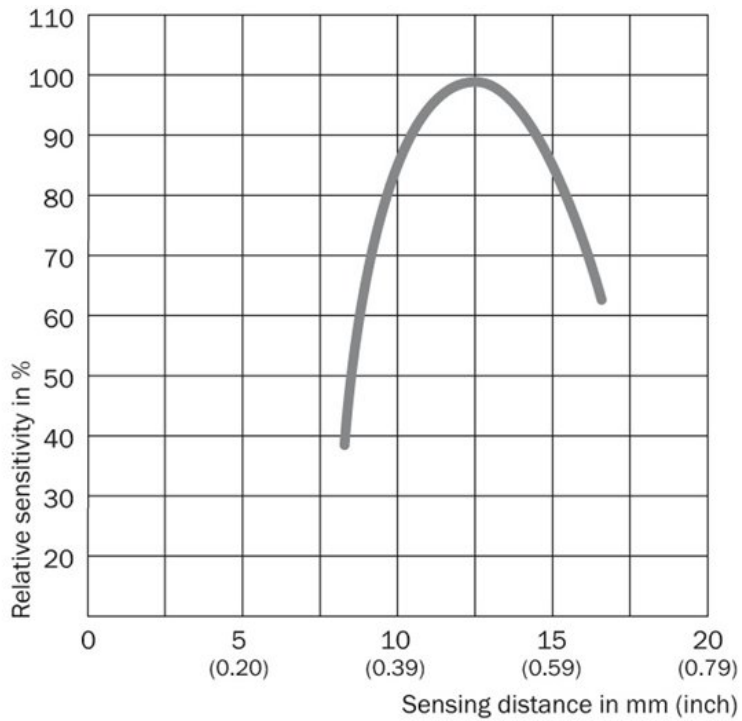
Connection type



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