



Contrast sensors KT5, KT5-2 Teach-in

KT5RG-2N1116



Model Name > [KT5RG-2N1116](#)
Part No. > [1027394](#)



At a glance

- Tough, metal housing
- Various teach-in methods via control panel or control cable
- Maximum detection reliability due to 3-color RGB LED technology
- Switching frequency of 10 kHz
- Various sensing distances and light spot directions
- M12 plug can be rotated 90°

Your benefits

- All print marks and color combinations are reliably detected, ensuring high machine throughput
- Reliable operation, even with jittering webs and high-gloss materials
- High positioning accuracy improves packaging quality
- Various sensing distances, light spot directions and light emissions make individual configuration and simple integration into the production process possible



Features

Sensing distance ¹⁾ :	10 mm
Sensing distance tolerance:	± 3 mm
Light source ²⁾ :	LED
Wave length:	525 nm, 640 nm
Light spot size:	1.2 mm x 4.2 mm
Light spot direction ³⁾ :	Vertical
Type of light:	Visible green light, Visible red light
Dimensions (W x H x D):	30.4 mm x 53 mm x 80 mm
Housing design (light emission):	Rectangular
Teach-in mode:	Static 2-point teach-in

¹⁾ From front edge of lens ²⁾ Average service life of 100,000 h at $T_A = +25\text{ °C}$ ³⁾ In relation to long side of housing

Mechanics/electronics

Ripple ¹⁾ :	≤ 5 Vpp
Power consumption ²⁾ :	< 80 mA
Switching frequency ³⁾ :	10 kHz
Response time ⁴⁾ :	50 µs
Output type:	NPN: HIGH = approx. VS / LOW ≤ 2 V

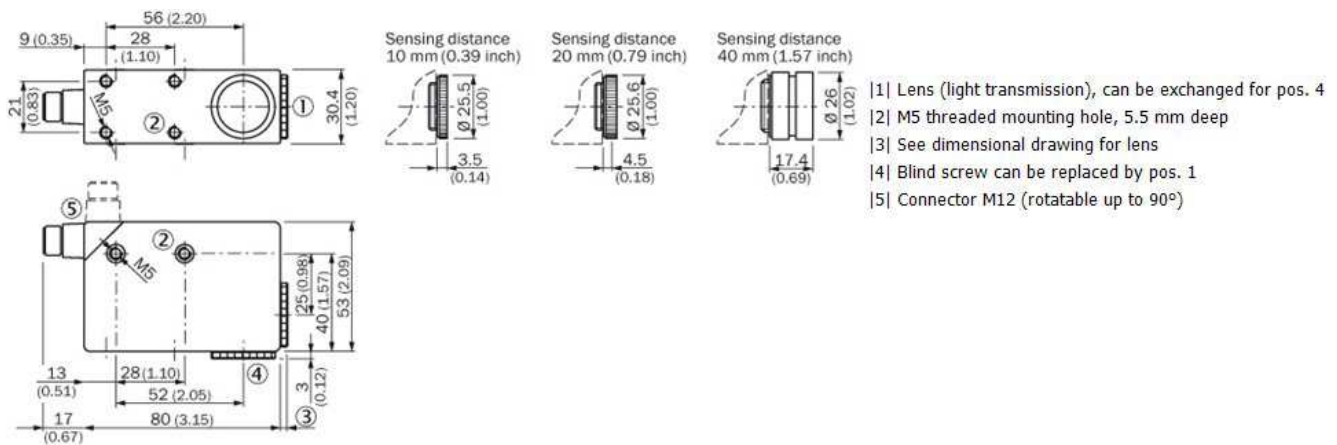
Switching mode:	NPN
Input, teach-in (ET):	NPN:, Run: $U = 10\text{ V} \dots < U_V$, Teach: $U < 2\text{ V}$
Retention time (ET):	25 ms, non-volatile memory
Connection type:	Connector M12, 4-pin
Protection class:	III
Circuit protection:	Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	400 g
Housing material:	Metal, Zinc diecast
Output current I _{max} ..:	100 mA
Supply voltage:	10 V DC ... 30 V DC ⁵⁾
Fieldbus interface:	-

1) May not exceed or fall short of V_S tolerances 2) Without load 3) With light/dark ratio 1:1 4) Signal transit time with resistive load 5) Limit values; operation in short-circuit protected network max. 8 A

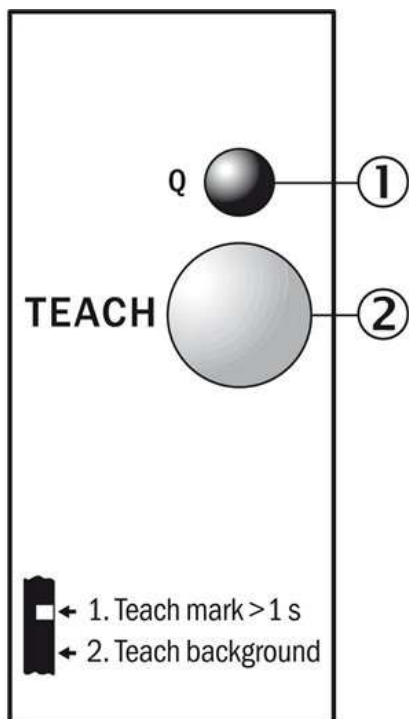
Ambient data

Shock load:	According to IEC 60068
Ambient operating temperature:	-10 °C ... +55 °C
Ambient storage temperature:	-25 °C ... +75 °C

Dimensional drawing

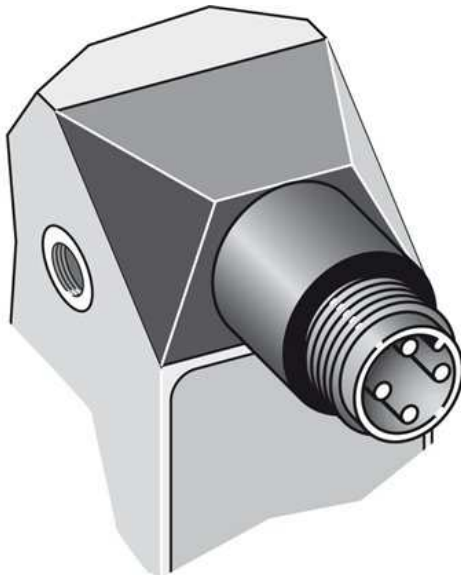


Adjustments

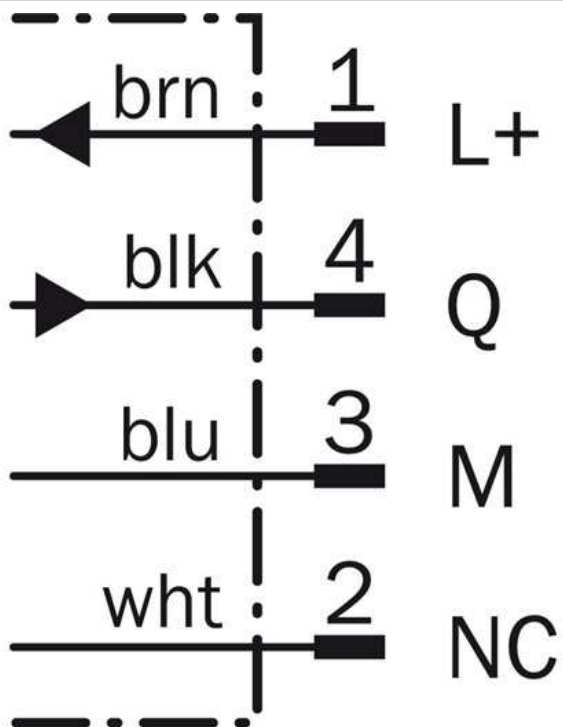


- |1| Function signal indicator (yellow)
- |2| Teach-in button

Connection type

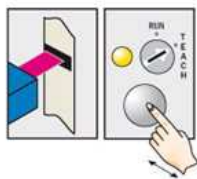


Connection diagram



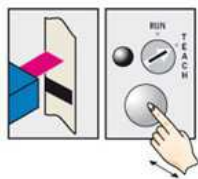
Bedienhinweis

1. Position mark



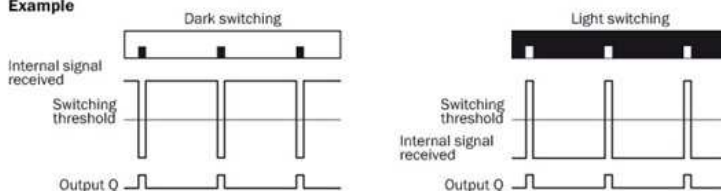
Turn rotary switch to "Teach" position. Press and hold teach-in button > 1 s. Red emitted light and yellow LED flash.

2. Position background



Press and hold teach-in button > 1 s. Yellow LED goes out.

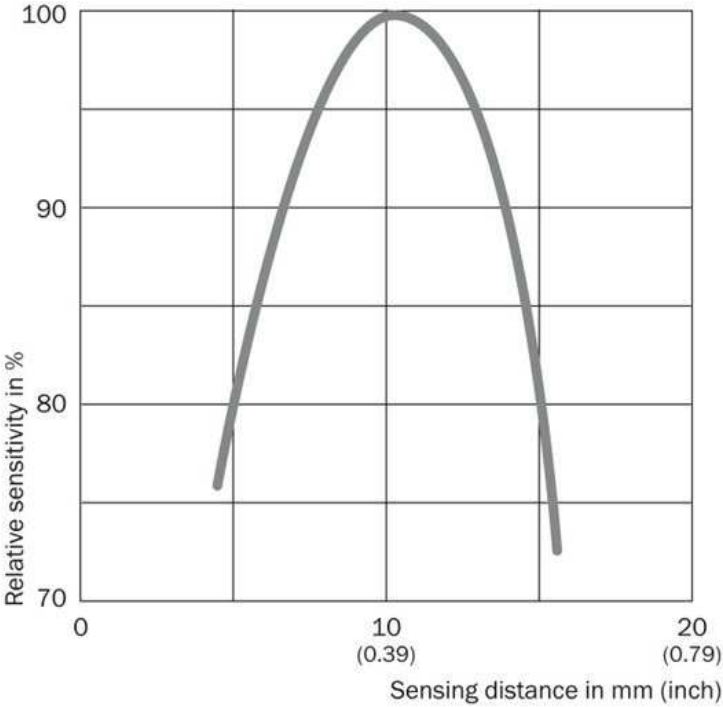
Example



Switching characteristics

The optimum emitted light is selected automatically.
 Light/dark setting is defined using teach-in sequence.
 The switching threshold is set in the center between the background and the mark.
 Teach-in can also be performed using an external control signal.

Sensing distance



Australia

Phone +61 3 9457 0600
1800 33 48 02 – 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 marketing@sick.com.br

Canada

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

Česká 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 info@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 +972-4-6881000
E-Mail info@sick-sensors.com

Italia

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

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

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

Nederland

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

Norge

Phone +47 67 81 50 00
E-Mail sick@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 sales.gsg@sick.com

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 88 65 878
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