



Contrast sensors  
KT5, KTL5-2 Fiber Optic

KTL5G-2P24



**Model Name** > [KTL5G-2P24](#)  
**Part No.** > [1019162](#)



*Illustration may differ*

**At a glance**

- Various heat-resistant fiber-optic cable models are available
- Various teach-in methods, including potentiometer
- Analog output
- Switching frequency of 10 kHz

**Your benefits**

- Reliable contrast detection
- Flexible integration into machines due to minimal space requirements and various fiber-optic cable versions
- Durable, glass fiber-optic cables
- Reliable operation in adverse environmental conditions, such as extreme temperatures and moisture
- Resistant to aggressive cleaning agents
- Compact design fits in applications with limited space



**Features**

Sensing distance:	Dependent on the fiber-optic cable
Light source <sup>1)</sup> :	LED
Wave length:	520 nm
Light spot size:	Dependent on the fiber-optic cable
Output function:	Light/dark switching
Type of light:	Visible green light
Dimensions (W x H x D):	30.4 mm x 53 mm x 80 mm
Housing design (light emission):	Rectangular
Teach-in mode:	Without, automatic contrast detection

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

**Mechanics/electronics**

Ripple <sup>1)</sup> :	≤ 5 Vpp
Current consumption <sup>2)</sup> :	< 80 mA
Switching frequency <sup>3)</sup> :	10 kHz
Response time <sup>4)</sup> :	50 μs
Output type:	PNP: HIGH = VS- ≤ 2 V / LOW approx. 0 V
Switching mode:	NPN
Input, fine/coarse (F/C):	Coarse: U > 10 V ... < U <sub>v</sub> , PNP: fine: U = 0 V

Retention time (ET):	25 ms, non-volatile memory
Time delay:	20 ms
Connection type:	Connector M12, 5-pin
Protection class <sup>5)</sup> :	II
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 <sub>max.</sub> :	100 mA
Supply voltage:	10 V DC ... 30 V DC <sup>6)</sup>
Fieldbus interface:	-

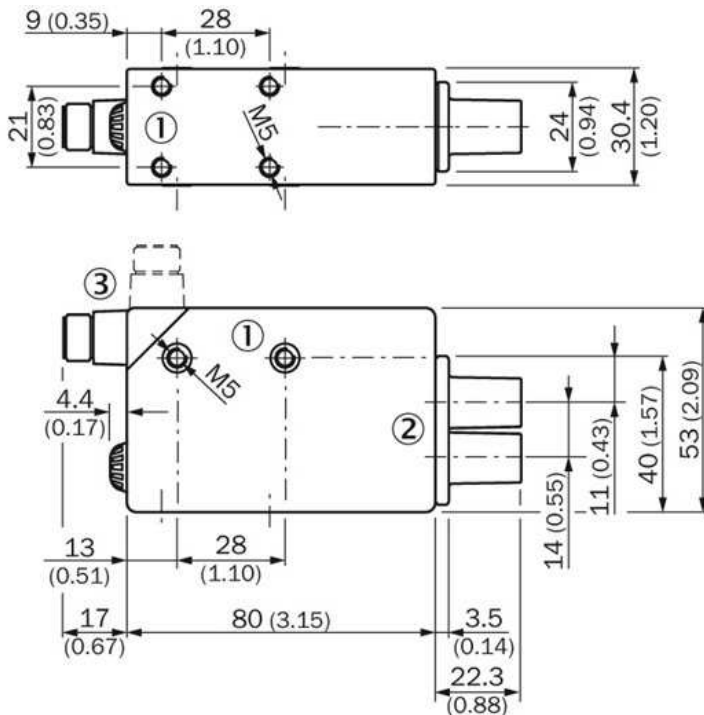
1) May not exceed or fall short of V<sub>S</sub> tolerances 2) Without load 3) With light/dark ratio 1:1 4) Signal transit time with resistive load 5) Reference voltage DC 50 V 6)

Limit values; operation in short-circuit protected network max. 8 A

### Ambient data

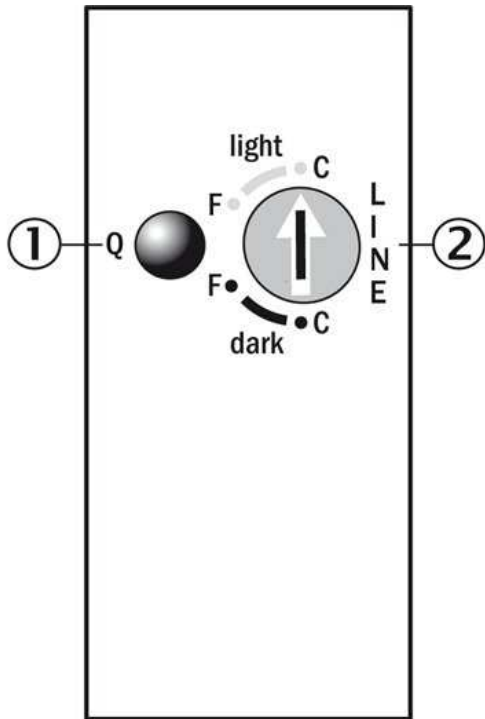
Shock load:	According to IEC 60068
UL File No.:	NRKH.E181493 & NRKH7.E181493
Ambient operating temperature:	-10 °C ... +55 °C
Ambient storage temperature:	-25 °C ... +75 °C

### Dimensional drawing



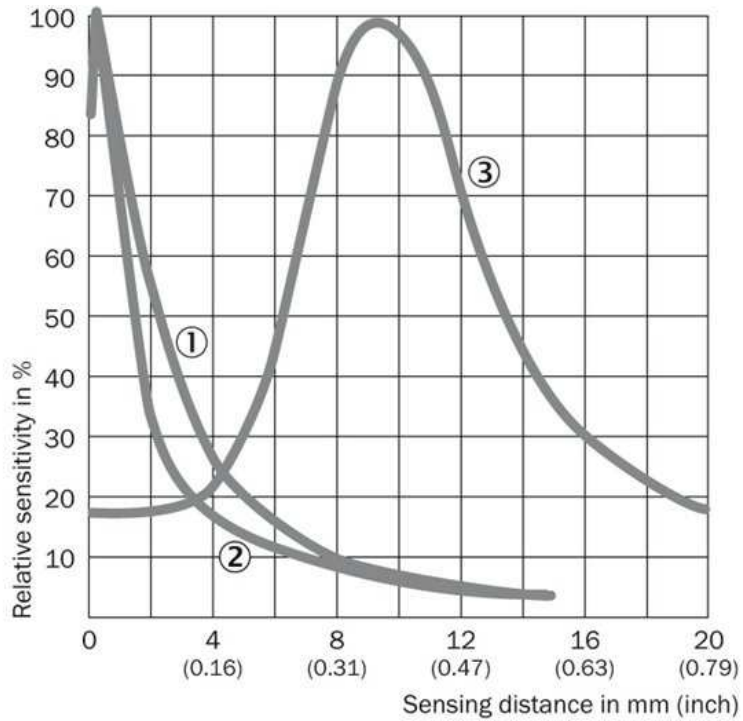
- [1] M5 threaded mounting hole, 5.5 mm deep
- [2] Fiber-optic adapter (M12 x 1 internal thread)
- [3] Connector M12 (rotatable up to 90°)

## Adjustments



- |1| Function signal indicator (yellow)
- |2| Fine/coarse switch

## Sensing distance



- |1| Fiber-optic cable LBST 32900
- |2| Fiber-optic cable LBSR 32900
- |3| Fiber-optic cable OCSL

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