



Contrast sensors
KT5, KT5-2 Teach-in

KT5G-2N1116



Model Name > [KT5G-2N1116](#)
Part No. > [1019352](#)



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

| | |
|--------------------------------------|--|
| 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⁾ : | LED green |
| Light emission: | Long and short side of housing, exchangeable |
| Light spot size: | 1.2 mm x 4.2 mm |
| Light spot direction ³⁾ : | Vertical |
| Adjustment: | Static 2-point teach-in |

¹⁾ From front edge of lens ²⁾ Wave length: 520 nm ³⁾ 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⁾ : | < 80 mA |
| Switching frequency ⁴⁾ : | 10 kHz |
| Response time ⁵⁾ : | 50 μs |
| Output type: | NPN: HIGH = approx. V _S / LOW ≤ 2 V |
| Switching mode: | NPN |

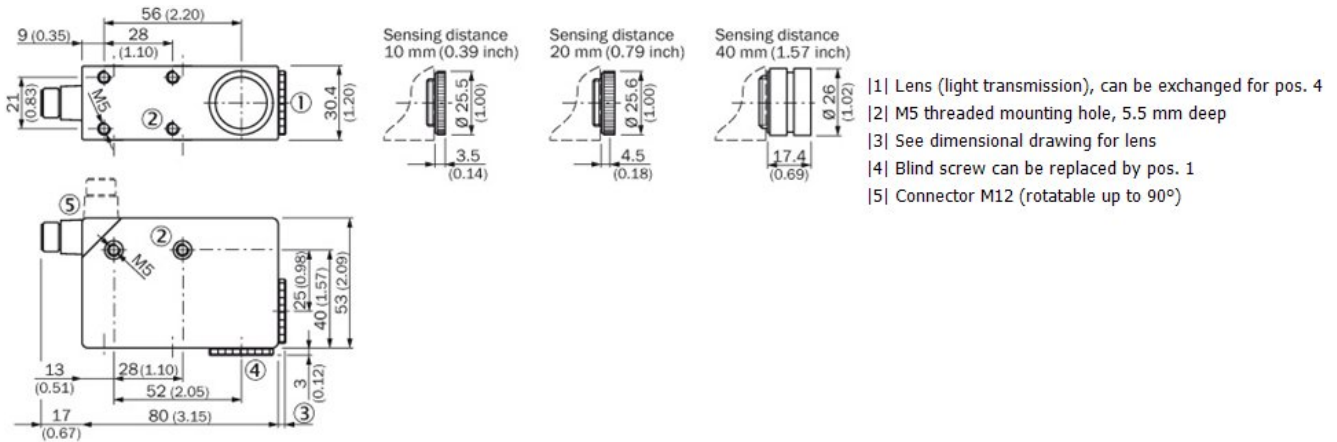
| | |
|------------------------------------|---|
| Input, teach-in (ET): | NPN, Run: $U = 10\text{ V} \dots < U_V$, Teach: $U < 2\text{ V}$ |
| Retention time (ET): | 25 ms, non-volatile memory |
| Connection type: | Connector M12, 5-pin |
| Protection class ⁶⁾ : | II |
| Circuit protection: | Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected |
| Enclosure rating: | IP 67 |
| Weight: | Ca. 400 g |
| Housing material: | Zinc diecast |
| 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⁾ Reference voltage DC 50 V

Ambient data

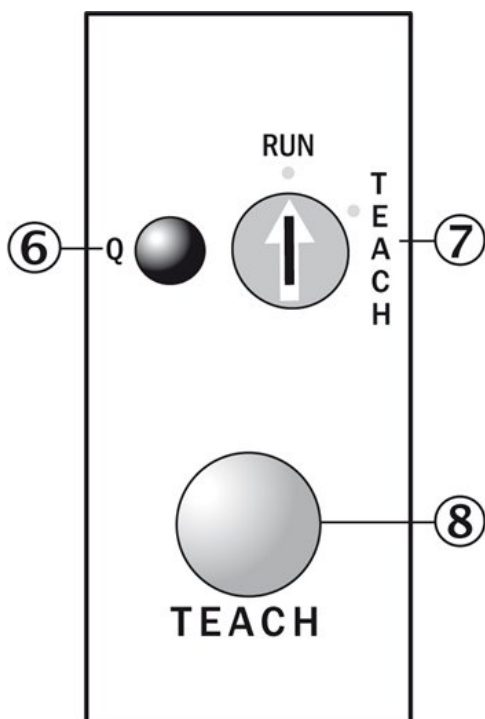
| | |
|----------------------|--|
| Ambient temperature: | Operation: -10 ... 55 °C, Storage: -25 ... 75 °C |
| Shock load: | According to IEC 60068 |
| UL File-No.: | UL No. NRKH.E181493 & cUL No. NRKH7.E181493 |

Dimensional drawing



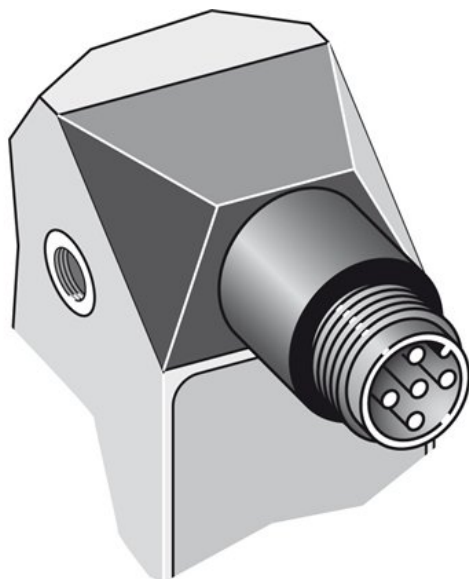
All dimensions in mm (inch)

Adjustments

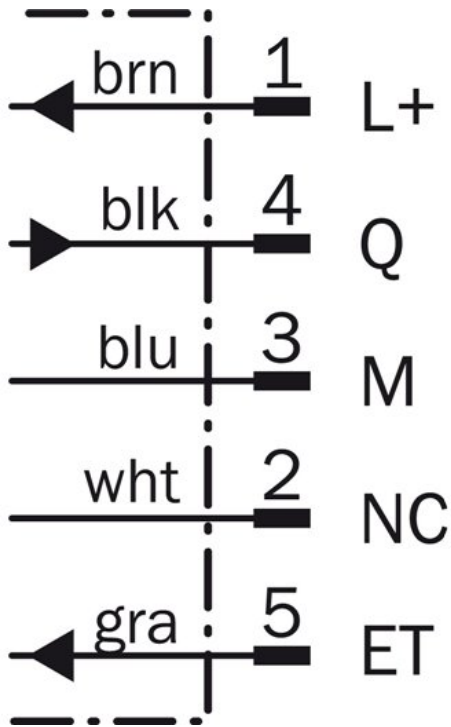


- |6| Function signal indicator (yellow)
- |7| Pre-selection switch
- |8| Teach-in button

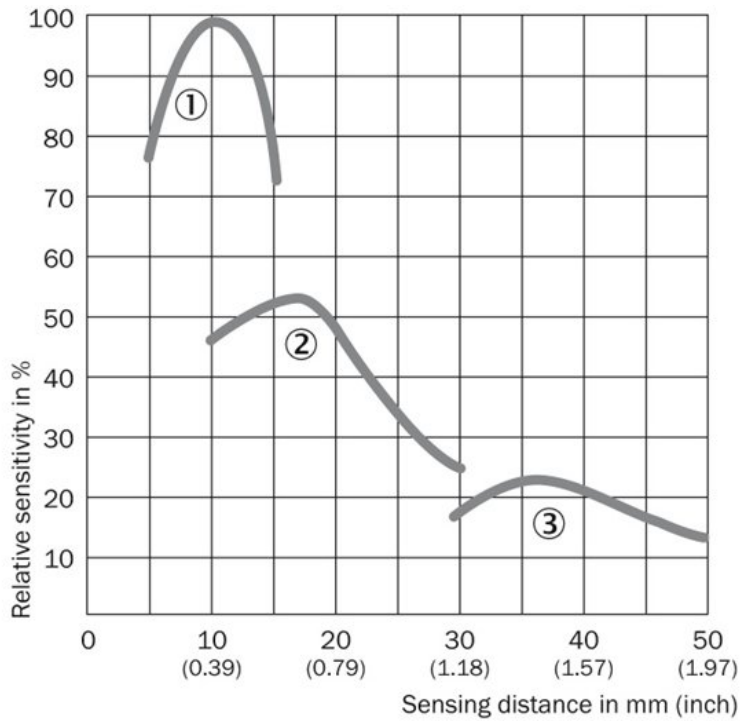
Connection type



Connection diagram



Sensing distance



- [1] Sensing distance 10 mm
- [2] Sensing distance 20 mm
- [3] Sensing distance 40 mm

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