



Contrast sensors
KT5, KT5-2 Teach-in

KT5G-2P2112



Model Name > [KT5G-2P2112](#)
Part No. > [1017956](#)



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: | 520 nm |
| Light emission: | Long and short side of housing, exchangeable |
| Light spot size: | 1.2 mm x 4.2 mm |
| Light spot direction ³⁾ : | Horizontal |
| 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: | 1-point-teach-in |

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

Mechanics/electronics

| | |
|-------------------------------------|---------|
| Ripple ¹⁾ : | ≤ 5 Vpp |
| Current consumption ²⁾ : | < 80 mA |
| Switching frequency ³⁾ : | 10 kHz |
| Response time ⁴⁾ : | 50 µs |

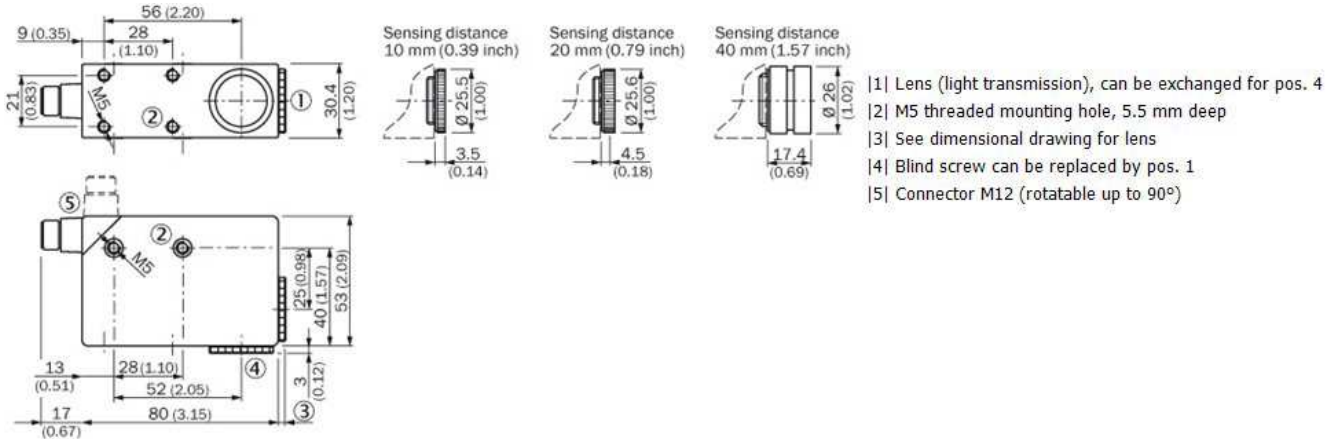
| | |
|------------------------------------|---|
| Output type: | PNP: HIGH = VS- ≤ 2 V/LOW approx. 0 V |
| Switching mode: | PNP |
| Input, teach-in (ET): | PNP: Run: U < 2 V, Teach: U = 10 V ... < U _V |
| Input, fine/coarse (F/C): | Coarse: U > 10 V ... < U _v , PNP: fine: U = 0 V |
| Retention time (ET): | 25 ms, non-volatile memory |
| Connection type: | Connector M12, 5-pin |
| Protection class ⁵⁾ : | II |
| Circuit protection: | Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected |
| Weight: | 400 g |
| Housing material: | Metal, Zinc diecast |
| Output current I _{max.} : | 100 mA |
| Supply voltage: | 10 V DC ... 30 V DC ⁶⁾ |
| 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) Reference voltage DC 50 V 6) Limit values; operation in short-circuit protected network max. 8 A

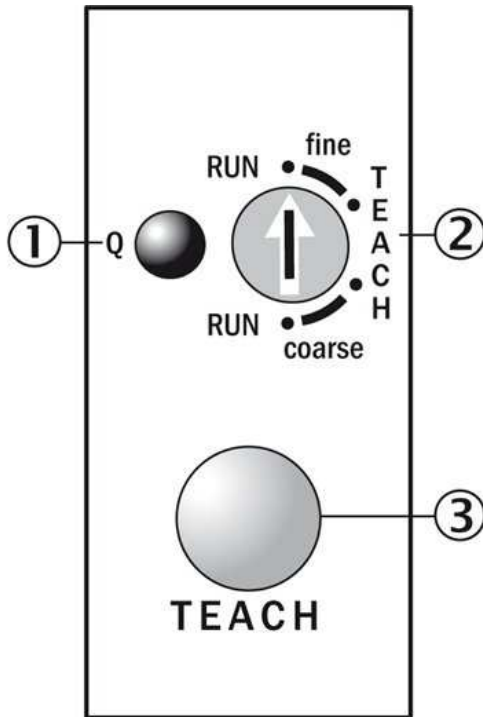
Ambient data

| | |
|--------------------------------|------------------------------|
| 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

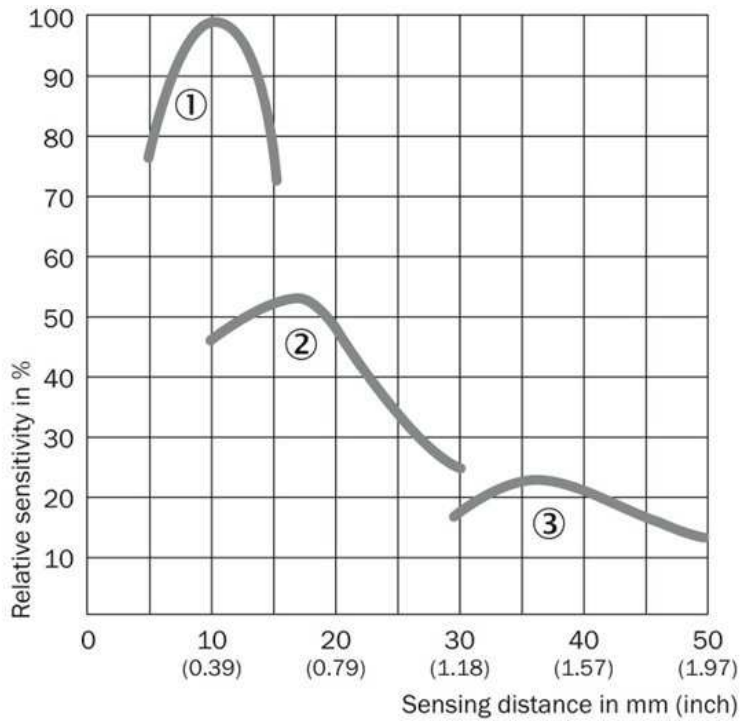


Adjustments



- |1| Function signal indicator (yellow)
- |2| Pre-selection switch for minimum contrast
- |3| Teach-in button

Sensing distance



- |1| Sensing distance 10 mm
- |2| Sensing distance 20 mm
- |3| Sensing distance 40 mm

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