



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

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), 3)} :	LED green
Light emission:	Long and short side of housing, exchangeable
Light spot size:	1.2 mm x 4.2 mm
Light spot direction ⁴⁾ :	Horizontal
Adjustment:	1-point-teach-in

¹⁾ From front edge of lens ²⁾ Average service life of 100,000 h at T_A = +25 °C ³⁾ Wave length: 520 nm ⁴⁾ 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:	PNP: HIGH = V _S - ≤ 2 V / LOW approx. 0 V
Switching mode:	PNP

Input, teach-in (ET):
Input, fine/coarse (F/C):
Retention time (ET):
Connection type:
Protection class ⁶⁾:
Circuit protection:

Weight:
Housing material:
Output current I_{max}..

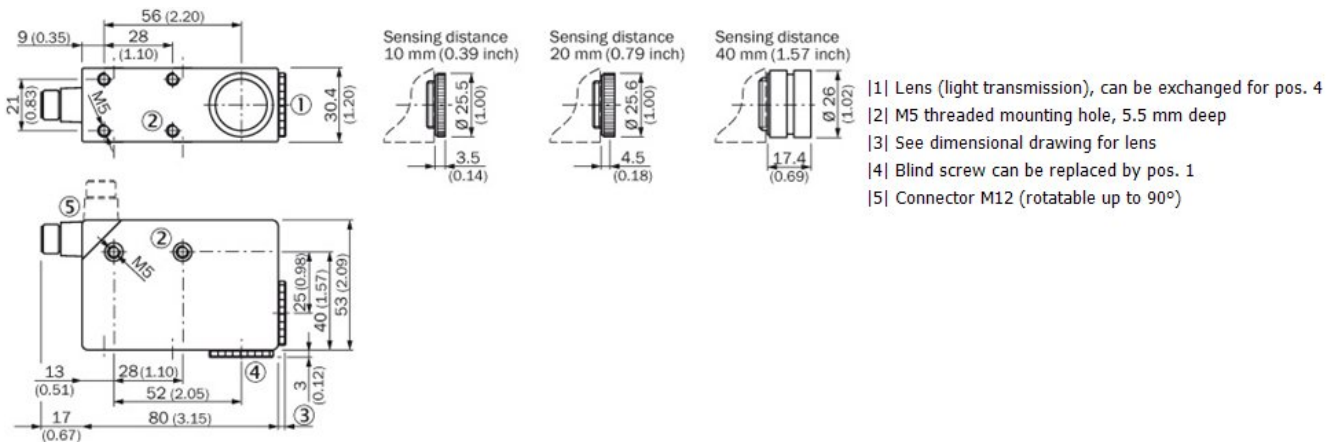
PNP:, Run: $U < 2\text{ V}$, Teach: $U = 10\text{ V} \dots < U_V$
Coarse: $U > 10\text{ V} \dots < U_V$, PNP: fine: $U = 0\text{ V}$
25 ms, non-volatile memory
Connector M12, 5-pin
II
Output Q short-circuit protected, Interference suppression, VS
connections reverse-polarity protected
Ca. 400 g
Zinc diecast
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⁾
⁶⁾ Reference voltage DC 50 V
Signal transit time with resistive load

Ambient data

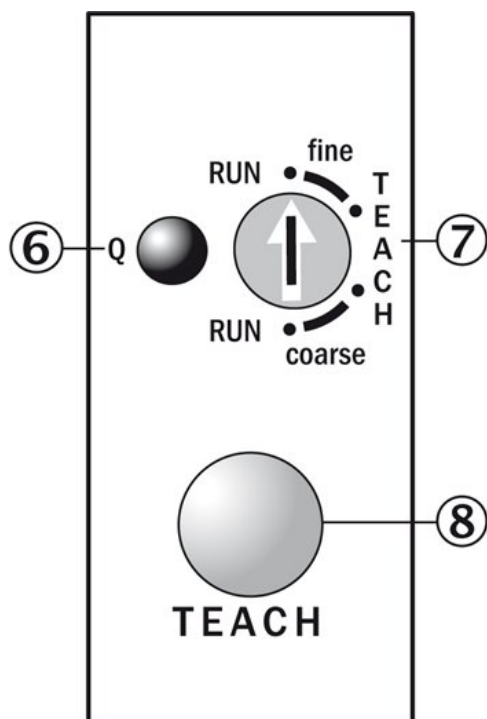
Ambient temperature: Operation: -10 ... 55 °C, Storage: -25 ... 75 °C
Shock load: According to IEC 60068
UL File-No.: UL No. NRKH.E181493 & cUL No. NRKH7.E181493

Dimensional drawing



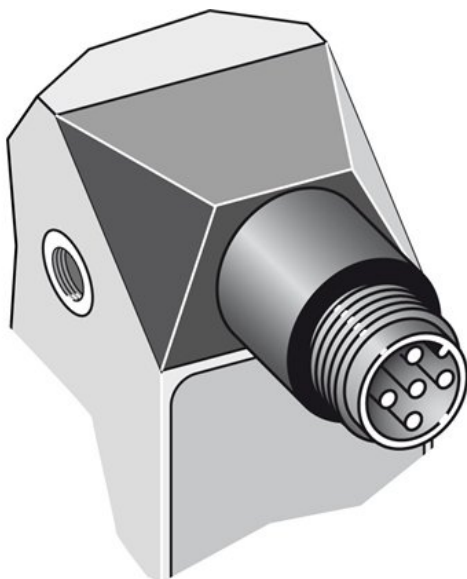
All dimensions in mm (inch)

Adjustments

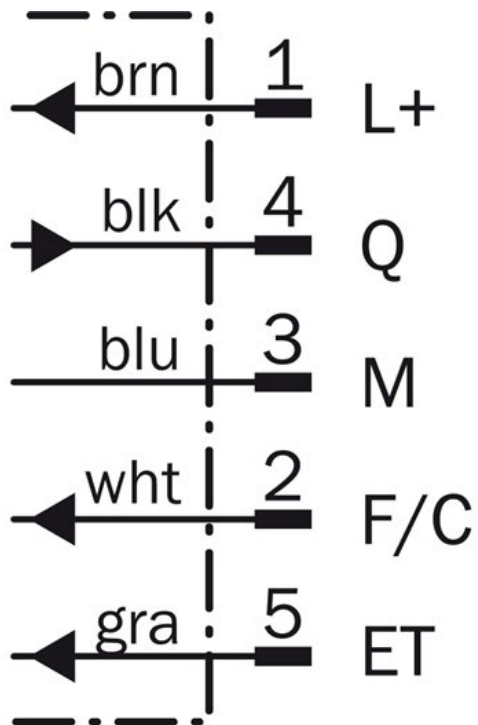


- |6| Function signal indicator (yellow)
- |7| Pre-selection switch for minimum contrast
- |8| Teach-in button

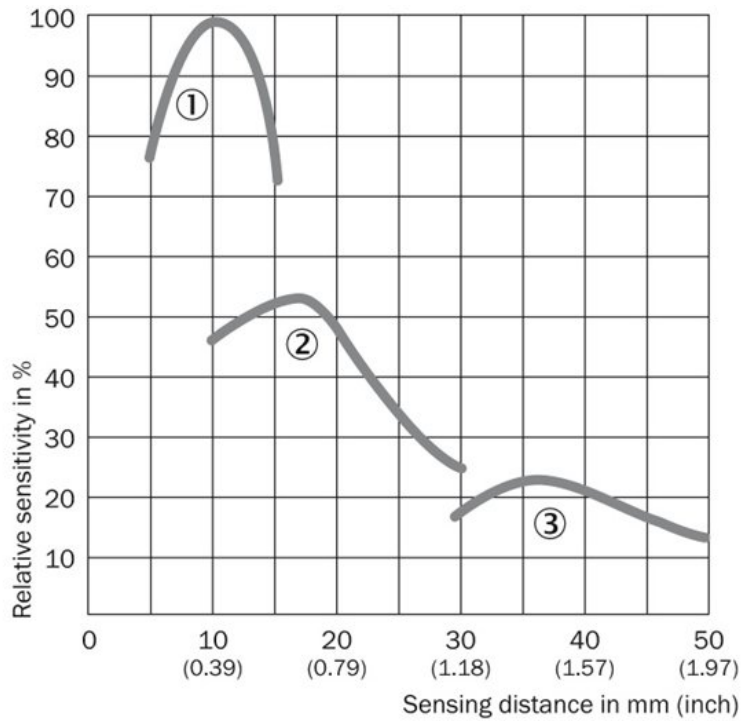
Connection type



Connection diagram



Sensing distance



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

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