



Contrast sensors KT5, KT5-2 Potentiometer

KT5G-2P1221



Model Name > [KT5G-2P1221](#)
Part No. > [1016001](#)



At a glance

- Tough, metal housing
- Manual switching threshold adjustment with optical adjustment indicator
- Green or white LED technology
- Models with analog output
- Switching frequency of 10 kHz
- Various sensing distances and light spot directions
- M12 plug can be rotated 90°

Your benefits

- All standard print marks and contrasts are detected
- 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⁾ :	20 mm
Sensing distance tolerance:	± 3 mm
Light source ^{2), 3)} :	LED green
Light emission:	Long and short side of housing, exchangeable
Light spot size:	1.5 mm x 5.5 mm
Light spot direction ⁴⁾ :	Vertical
Adjustment:	Manual adjustment, potentiometer
Output function:	Light/dark switching

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

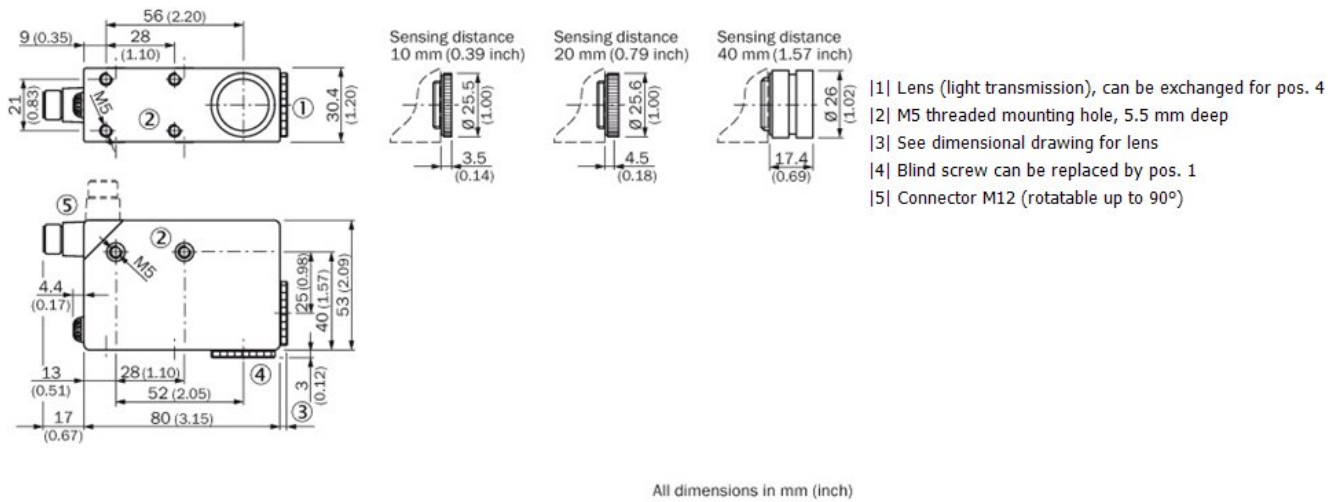
Switching mode:	PNP
Time delay:	20 ms
Connection type:	Connector M12, 4-pin
Protection class ⁶⁾ :	II
Circuit protection:	Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	Ca. 400 g
Housing material:	Zinc diecast
Output 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

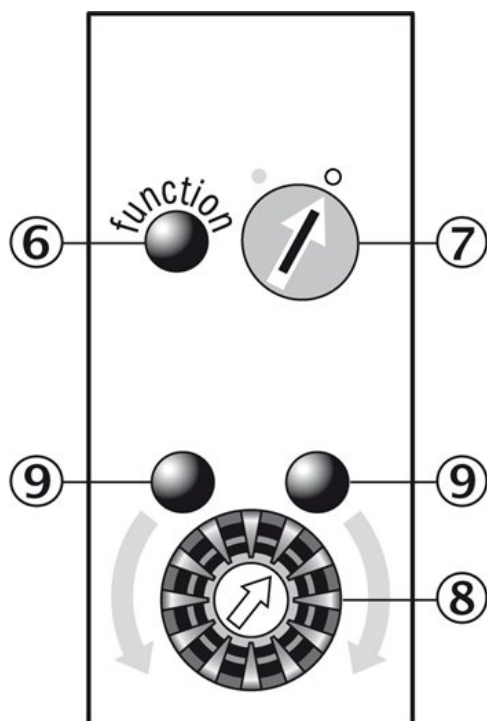
Ambient data

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

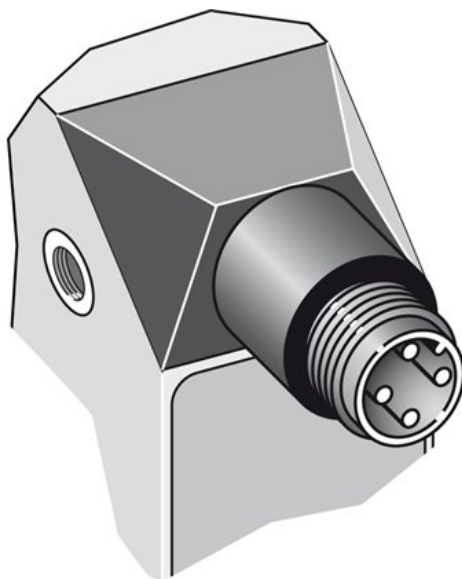


Adjustments

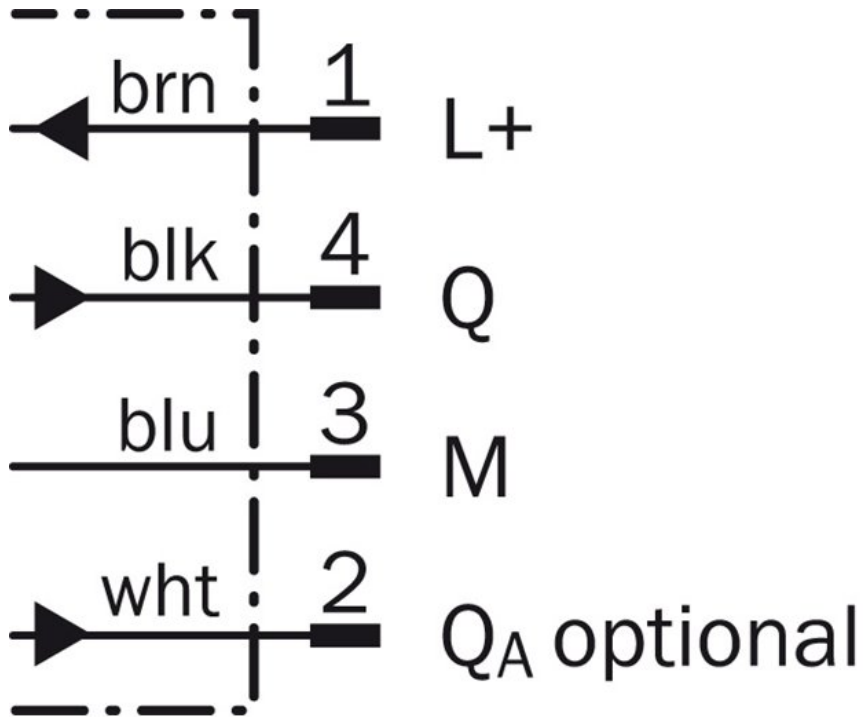


- |6| Function signal indicator (yellow)
- |7| Pre-selection switch (light/dark switching)
- |8| Switching threshold adjustment
- |9| Adjustment indicators (green)

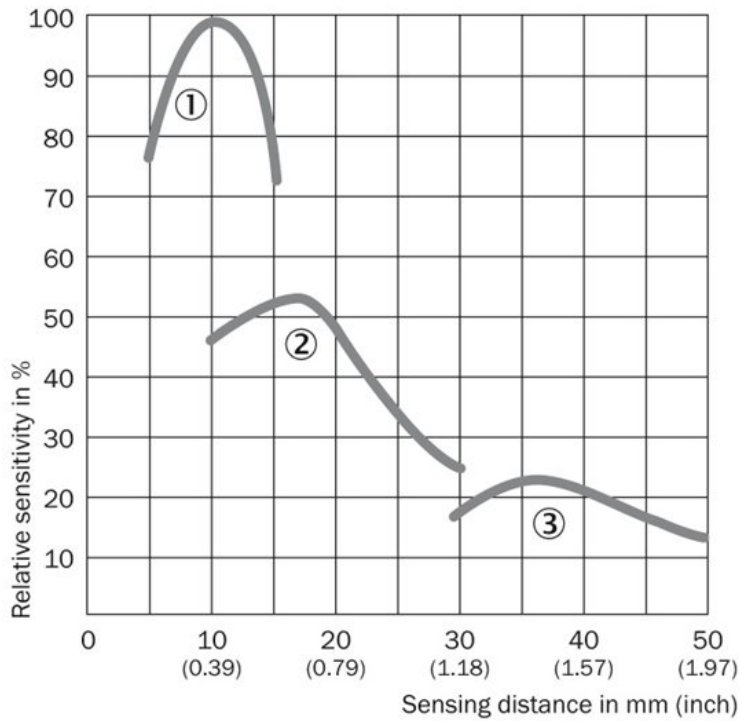
Connection type



Connection diagram



Sensing distance



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

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