



Contrast sensors
KT5, KT5-2 Teach-in

KT5W-2B1116



Model Name > [KT5W-2B1116](#)
Part No. > [1043006](#)



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 red, green, blue
Light emission:	Long and short side of housing, exchangeable
Light spot size:	1.2 mm x 4.2 mm
Light spot direction ⁴⁾ :	Vertical
Adjustment:	Static 2-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: 470 nm, 525 nm, 640 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:	NPN: HIGH = approx. V _S / LOW ≤ 2 V PNP: HIGH = V _S - ≤ 2 V / LOW approx. 0 V
Switching mode:	PNP/NPN

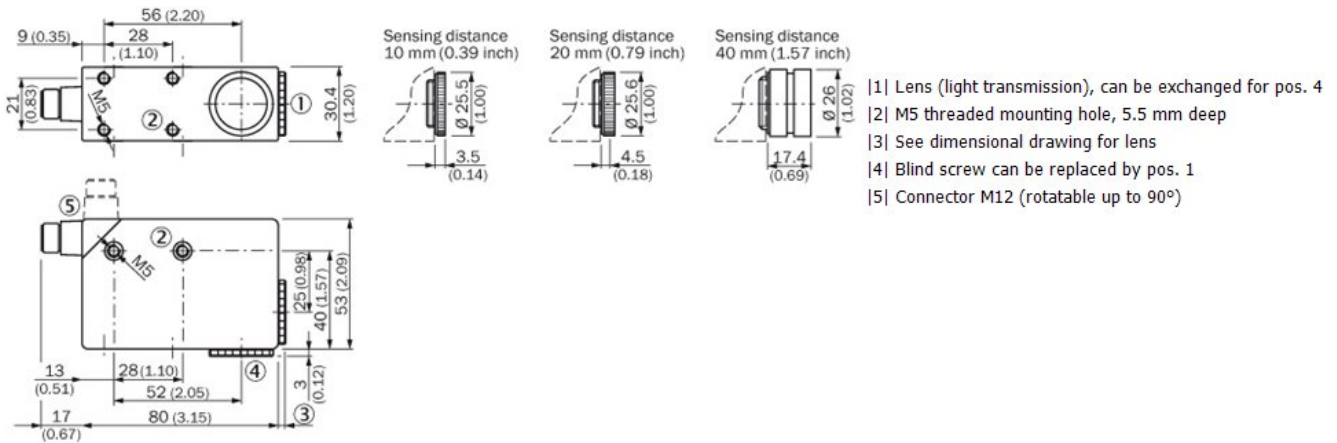
Retention time (ET): 25 ms, non-volatile memory
 Connection type: Connector M12, 4-pin
 Protection class ⁶⁾: II
 Circuit protection: Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected
 Enclosure rating: IP 67
 Weight: Ca. 400 g
 Housing material: Zinc 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

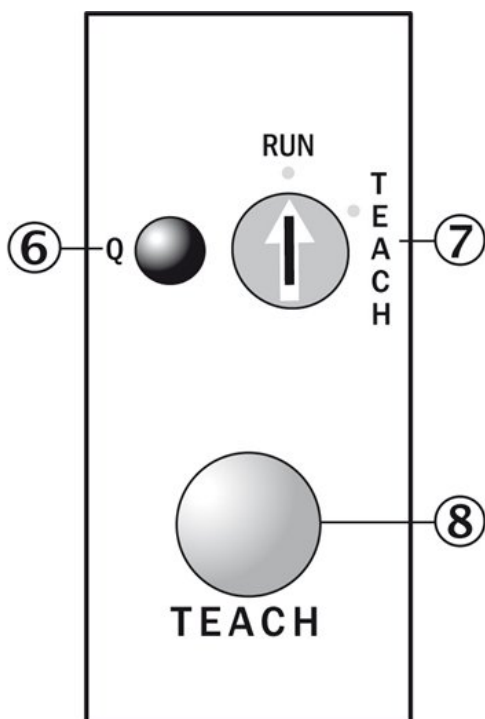
Ambient temperature: Operation: -10 ... 55 °C, Storage: -25 ... 75 °C
 Shock load: According to IEC 60068

Dimensional drawing



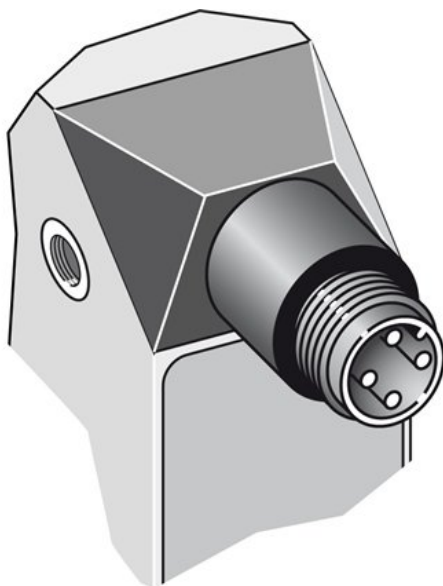
All dimensions in mm (inch)

Adjustments

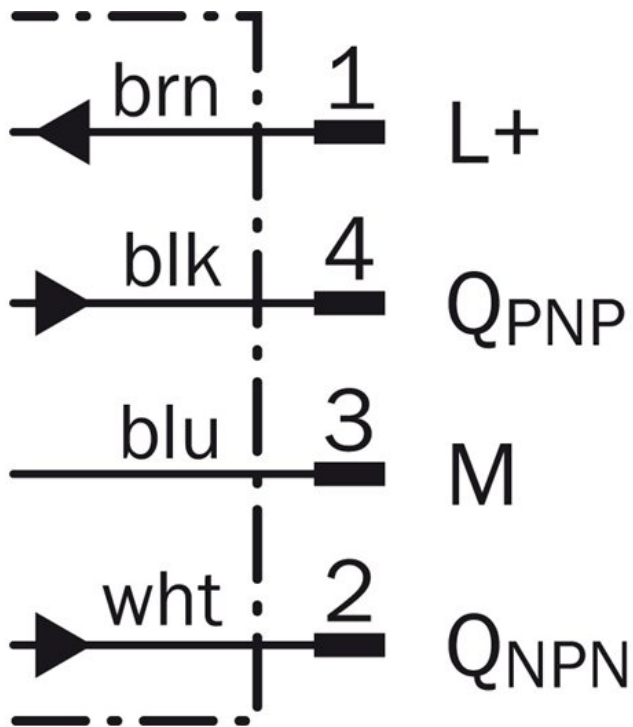


- |6| Function signal indicator (yellow)
- |7| Pre-selection switch
- |8| Teach-in button

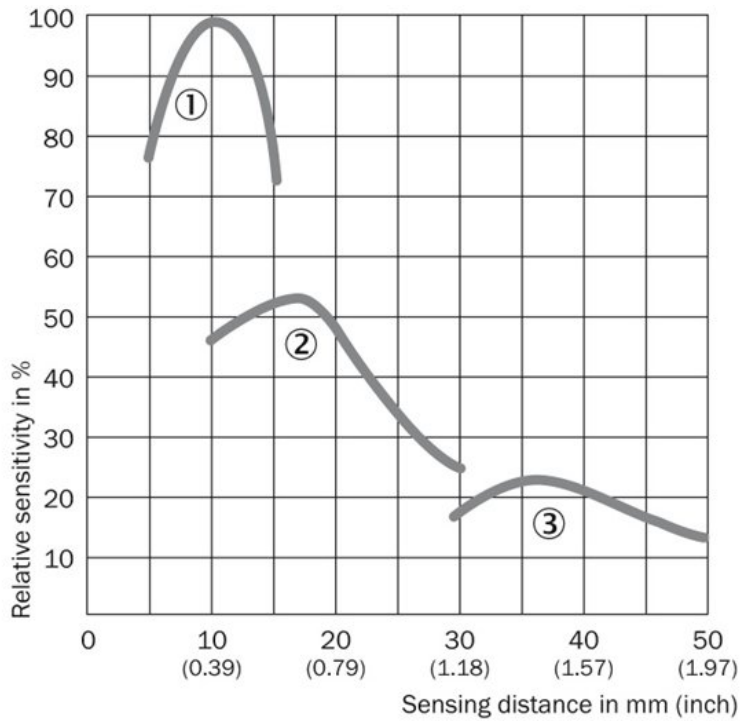
Connection type



Connection diagram



Sensing distance



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

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