



Contrast sensors KT5, KTH5-2 Hologram

KTH5W-2N1216D



Model Name > [KTH5W-2N1216D](#)
Part No. > [1028250](#)



At a glance

- Bar graph display helps with adjustment and alignment
- Detection reliability display
- Fine adjustment possible using +/- pushbutton
- 50 µs response time for high throughput
- Gloss adaptation specifically for holograms

Your benefits

- All holograms are detected reliably
- Simple and quick object teach-in saves time
- Precise front edge detection of the hologram for high end products
- Reliable operation, even with jittering and shiny materials
- Two interchangeable light exits for flexible integration into the system



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 red, green, blue
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:	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 V _{pp}
Power consumption ³⁾ :	< 130 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: Teach: U < 2 V Run: U = 10 V ... < U _V

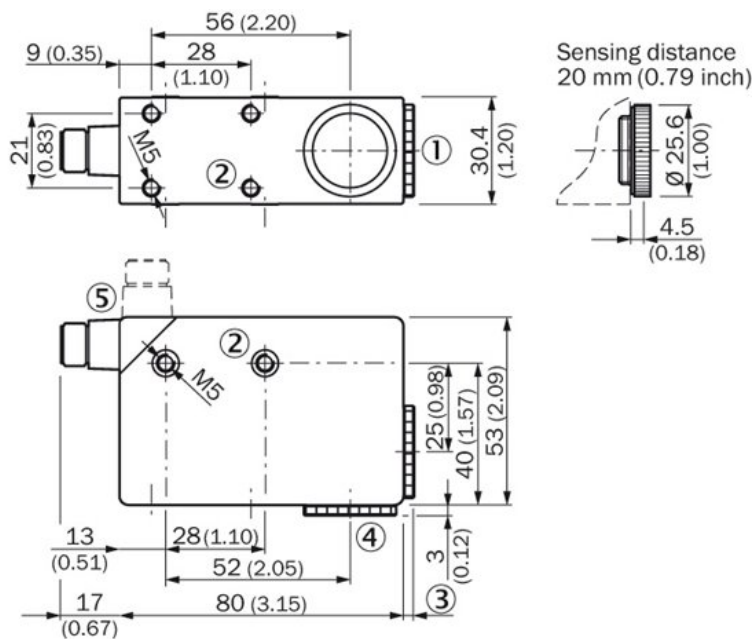
Retention time (ET):	25 ms, non-volatile memory
Connection type:	Connector M12, 5-pin
Protection class ⁶⁾ :	II
Circuit protection:	Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	Ca. 400 g
Housing material:	Zinc diecast
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

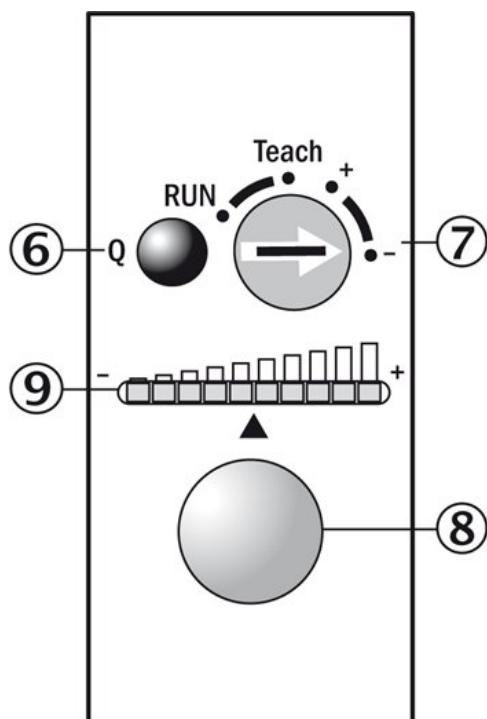
Dimensional drawing



- [1] Lens (light transmission), can be exchanged for pos. 4
- [2] M5 threaded mounting hole, 5.5 mm deep
- [3] See dimensional drawing of lens
- [4] Blind screw can be replaced by pos. 1
- [5] 5-pin, M12 x 1 connector (rotatable trough 90°)

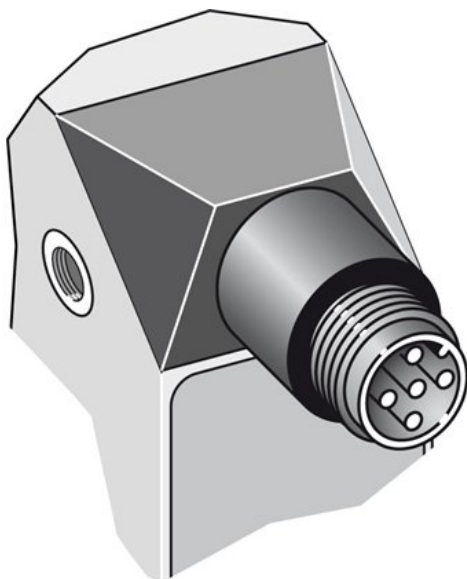
All dimensions in mm (inch)

Adjustments

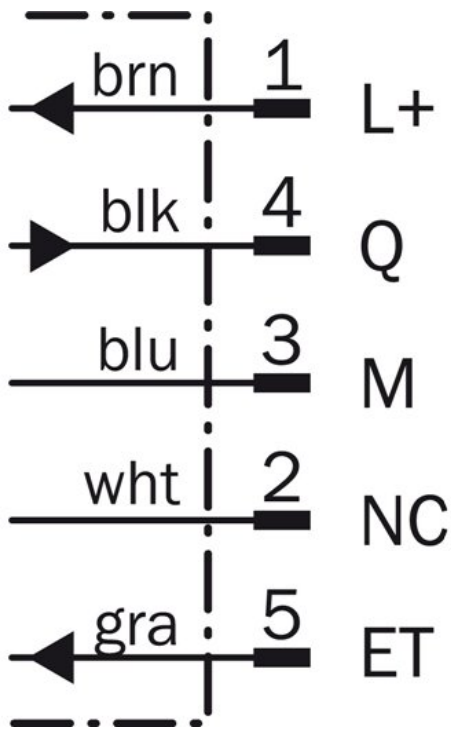


- |6| Function signal indicator (yellow)
- |7| Pre-selection switch
- |8| Teach-in button
- |9| Bar graph (green)

Connection type



Connection diagram



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