



Contrast sensors KT3, KT3L Laser

KT3L-P3216



Model Name > [KT3L-P3216](#)
Part No. > [1026244](#)



At a glance

- Very small housing
- Precise, small laser spot
- Sensing distance up to 60 mm
- Simple 2-point teach-in
- Switching frequency of 1,5 kHz
- Reliable operation for jittering materials

Your benefits

- Compact design fits in applications with limited space
- Small, precise light spot detects the smallest contrast marks, e.g., 1 x 1 mm², using Class II laser technology
- Long sensing distances up to 60 mm enable flexible installation
- The sensor's long depth-of-field ensures that it can be used at various sensing distances
- Automatic adaptation for high-gloss objects ensures high throughput
- Reliable operation for jittering materials



Features

Dimensions (L x W x H):	22 mm x 12 mm x 40 mm
Sensing distance:	40 mm
Sensing distance tolerance:	± 20 mm
Light source ¹⁾ , ²⁾ :	Laser diode red light
Light spot size:	1 mm x 2 mm
Light spot direction ³⁾ :	Vertical
Operating distance:	20 mm ... 60 mm
Adjustment:	Static 2-point teach-in

¹⁾ Average service life of 50,000 h at T_A = +25 °C ²⁾ Wave length: 655 nm ³⁾ 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⁾ :	< 35 mA
Switching frequency ⁴⁾ :	1.5 kHz
Response time ⁵⁾ :	400 µs
Output type:	PNP: HIGH = V _S - ≤ 2 V / LOW approx. 0 V

Switching mode:	PNP
Input, teach-in (ET):	PNP:, Run: U < 2 V, Teach U > 8 V
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. 11 g
Housing material:	ABS (plastic)
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

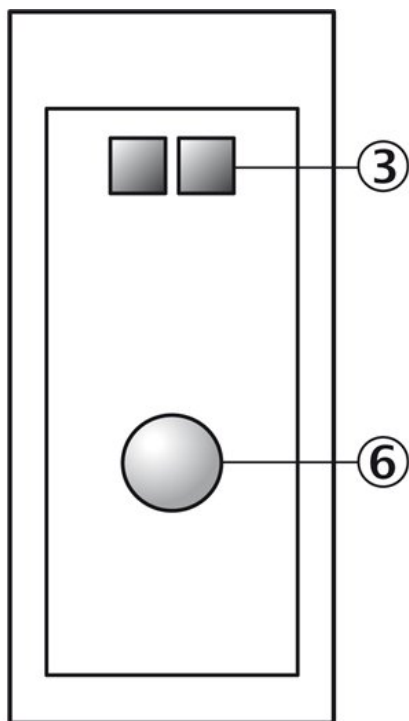
Ambient data

Ambient temperature:	Operation: -10 ... 45 °C, Storage: -20 ... 75 °C
Shock load:	According to IEC 60068
UL File No.:	NRKH.E181493 & NRKH7.E181493, CDRH-conform

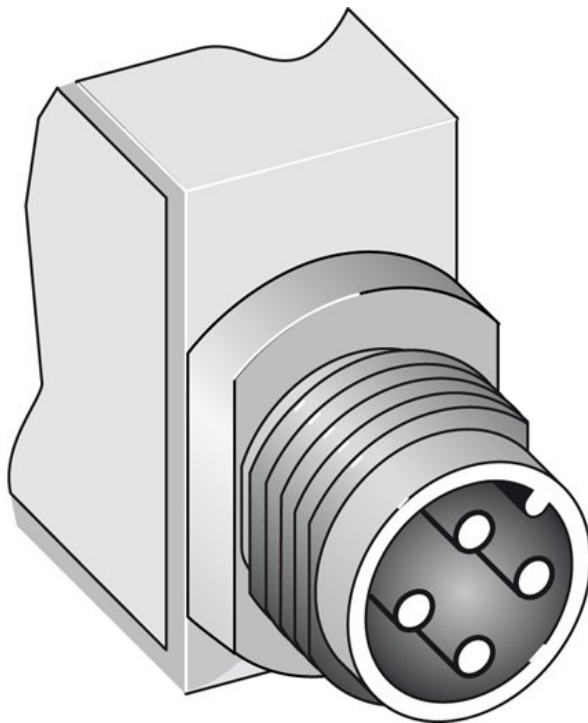
Dimensional drawing

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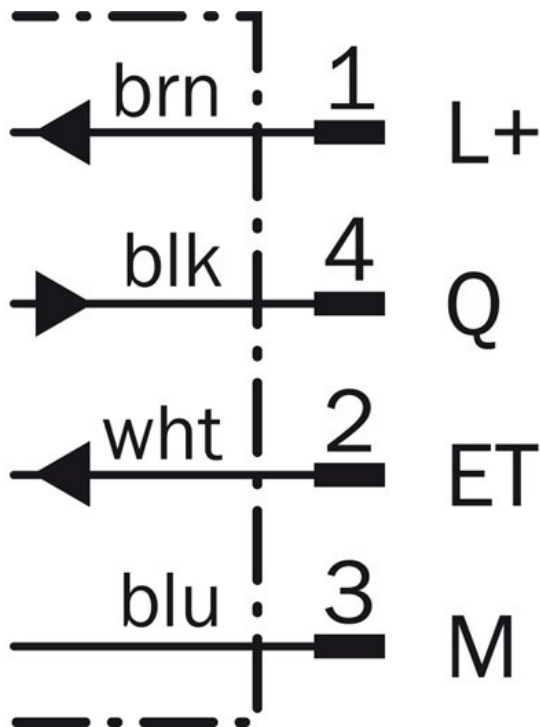
Adjustments



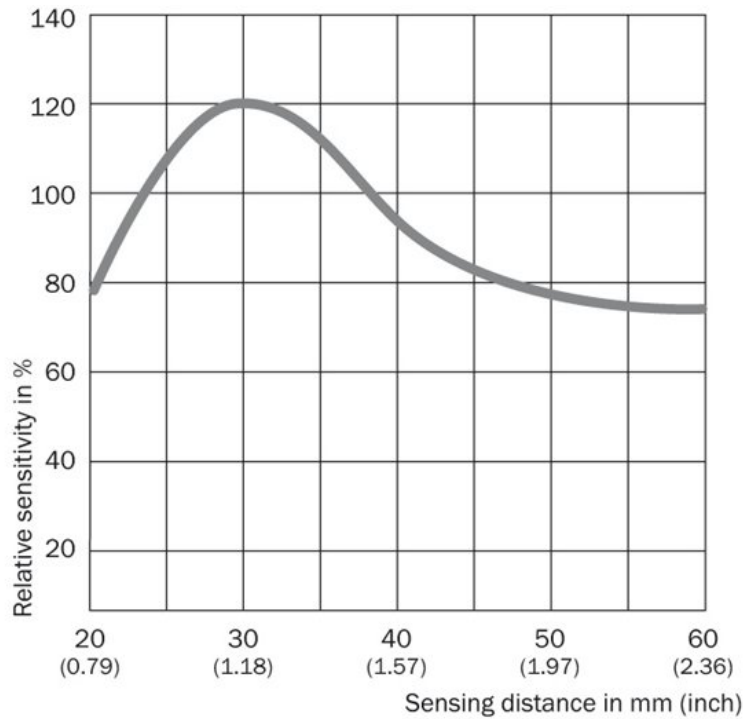
Connection type



Connection diagram



Sensing distance



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