



Contrast sensors KT1M

KT1M-P1



Model Name > [KT1M-P1](#)
Part No. > [1027306](#)



At a glance

- For detecting simple contrast differences, such as black marks on light backgrounds
- Small round housing with mounting accessories
- NPN and PNP models
- Light or dark switching functions
- Adjustment via potentiometer

Your benefits

- Cost-effective, application-specific sensor performance
- Quick and simple to integrate into machine designs
- LED indicator shows current operation status

The product has been discontinued. Please contact your SICK sales representative for more information about a replacement product.



Features

Sensing distance:	23.5 mm
Sensing distance tolerance:	± 1.5 mm
Light source ^{1), 2)} :	LED, white
Light spot size:	Ø 2 mm
Adjustment:	Manual adjustment, potentiometer
Output function:	Light switching

¹⁾ Average service life of 100,000 h at $T_A = +25\text{ °C}$ ²⁾ Wave length: 450 nm ... 650 nm

Mechanics/electronics

Supply voltage V_s ¹⁾ :	DC 10 V ... 30 V
Ripple ²⁾ :	≤ 5 Vpp
Power consumption ³⁾ :	< 20 mA
Switching frequency ⁴⁾ :	400 Hz
Response time ⁵⁾ :	1.25 ms
Output type:	PNP: HIGH = $V_s - \leq 3\text{ V}$ / LOW = approx. 0 V
Switching mode:	PNP
Connection type:	Connector M12, 3-pin
Protection class ⁶⁾ :	II

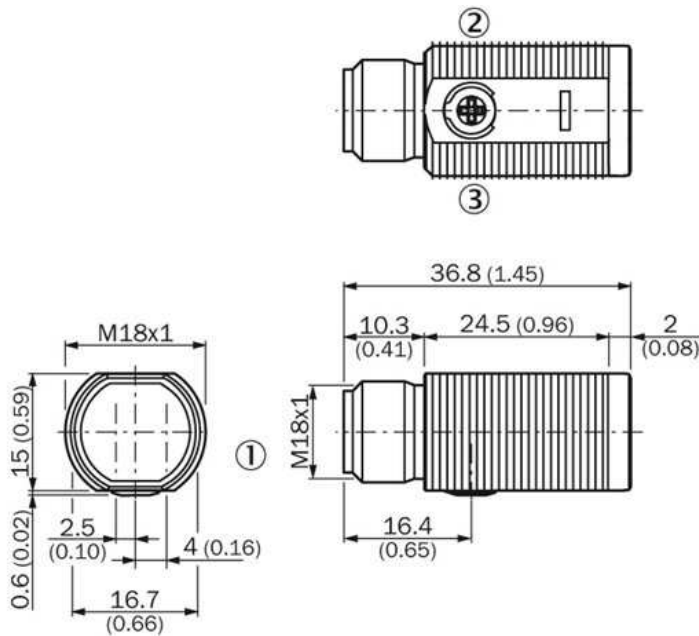
Circuit protection:	Outputs overcurrent and short-circuit protected, Interference suppression, VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	Ca. 7 g
Housing material:	ABS (plastic), Optics: PMMA
Output current I _{max.} :	100 mA

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 ... 70 °C
Shock load:	According to IEC 60068

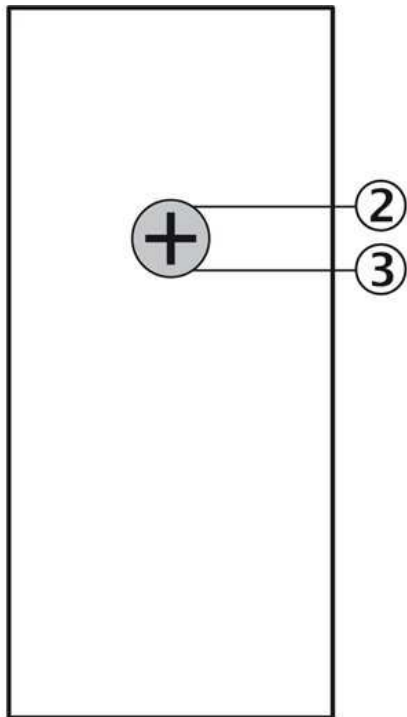
Dimensional drawing



- |1| Connector M12
- |2| Sensitivity adjustment 270°
- |3| LED indicator yellow

All dimensions in mm (inch)

Adjustments

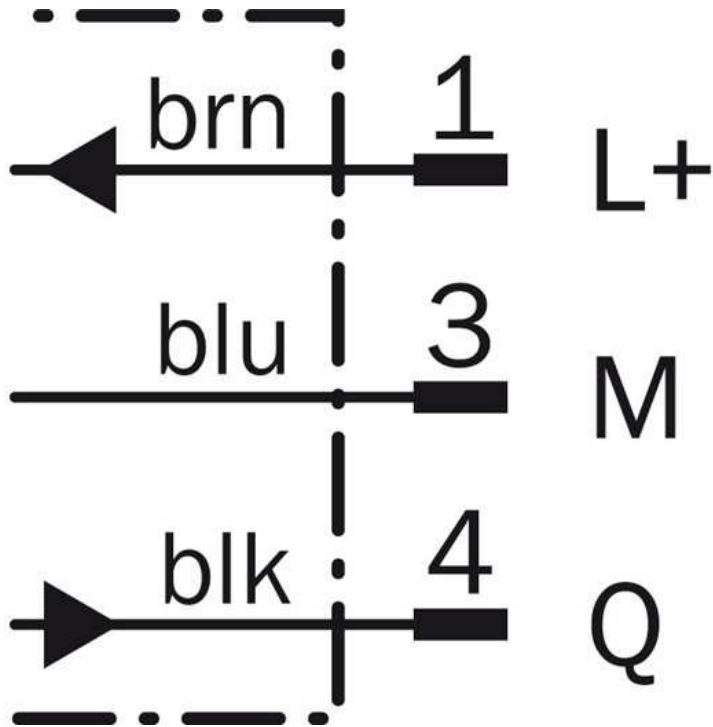


- |2| Sensitivity adjustment 270°
- |3| LED indicator yellow

Connection type



Connection diagram



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