



Photoelectric sensors
Background suppression, Photoelectric proximity
sensor, Product group W160T

WTB160T-F311



Model Name > [WTB160T-F311](#)
Part No. > [6021316](#)



- Vertical models
- Very small light spot to detect smallest objects
- Scanning distance adjustable via teach-in
- Precise background suppression
- LED indicator: function reserve



The product has been discontinued on 31.07.2014. Please contact your SICK sales representative for more information about a replacement product.



Product features

Sensing range min ... max:	10 mm ... 50 mm, 15 mm ... 50 mm
Light source:	LED
Type of light:	Red light
Light spot diameter:	Approx. 1.2 mm at 40 mm distance
Laser:	Red light
Sensing range max.:	10 mm ... 50 mm, 15 mm ... 50 mm
Relating to:	Object with 90 % reflectance (referred to standard white, DIN 5033)
Adjustment.:	Teach-in: single teach-in button
Wave length:	650 nm

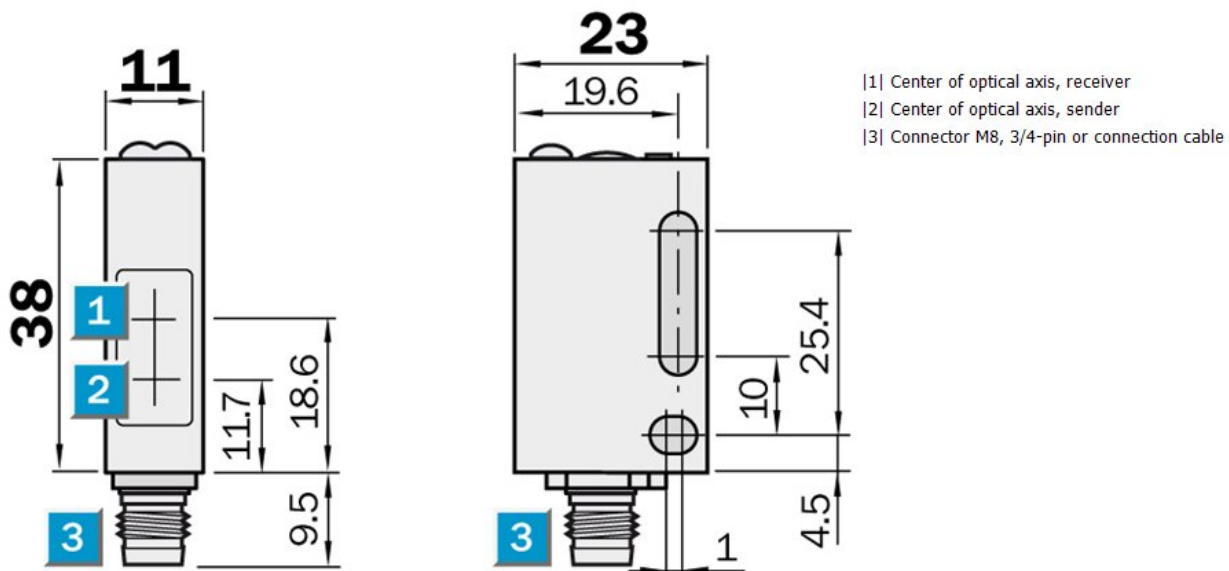
Technical data

Design:	Rectangular
Dimensions (W x H x D):	11 mm x 38 mm x 23 mm
Supply voltage min ... max:	DC 10 ... 30 V ¹⁾
Ripple:	± 10 %
Power consumption:	≤ 40 mA
Switching output:	PNP: open collector: Q
Switching mode:	Light/dark switching via rotary switch
Output current max.:	100 mA
Response time:	≤ 0.9 ms
Switching frequency:	550 Hz
Connection type:	Connector, M8, 3-pin
Circuit protection:	V connections reverse-polarity protected/In-/outputs short-circuit protected/Interference suppression/Outputs overcurrent and short-circuit protected

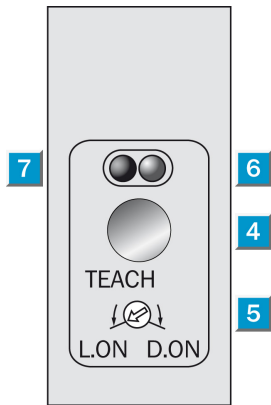
Enclosure rating:	IP 67: EN 60529, IP 69K: EN 40050
Ambient operation temperature, min ... max:	-25 °C ... ++55 °C
Ambient storage temperature, min ... max:	-40 °C ... ++70 °C
Weight:	Ca. 20 g
Housing material:	PBT
Series:	W160T
Optics material:	PMMA
Front screen heating:	-
Polarisation filter:	-
Housing design:	Vertical
UL File No.:	NRNT2.E128350 & NRNT8.E128350
Signal voltage PNP HIGH/LOW:	Vs - 1.8 V / approx. 0 V

¹⁾ Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A

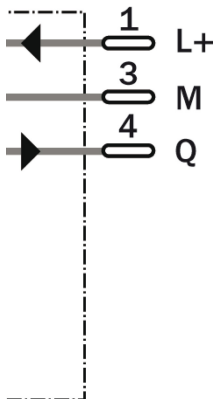
Masszeichnung



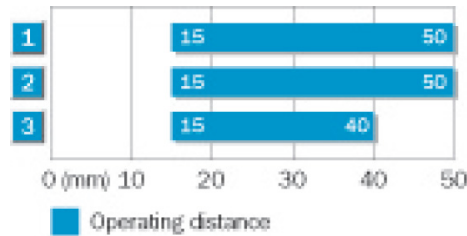
Einstell-Möglichkeiten



Anschluss-Schema

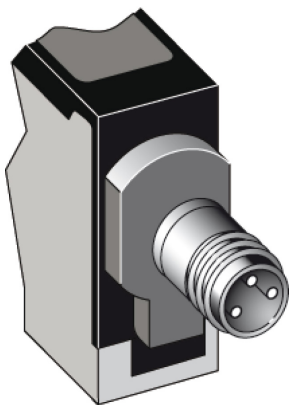


Schaltabstand-Diagramm

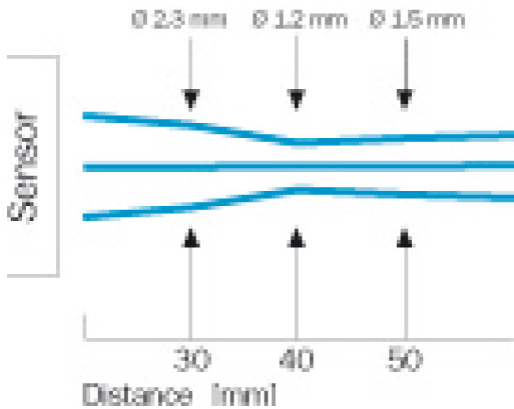


1	Scanning range on white, 90 % reflectance
2	Scanning range on grey, 18 % reflectance
3	Scanning range on black, 6 % reflectance

Anschlussart



Light spot diameter



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