



Photoelectric sensors  
energetic, divergent optics, Photoelectric  
proximity sensor, Product group W160

WT160-F460



**Model Name** > [WT160-F460](#)  
**Part No.** > [6022806](#)



- Vertical models
- Proximity switch with large opening angle for detecting objects conveyed loosely
- Red light as alignment aid
- Switching point adjustable
- LED indicator: operating reserve



#### Product features

Sensing range min ... max:	0 mm ... 100 mm, 0 mm ... 115 mm
Light source:	LED
Type of light:	Red light
Light spot diameter:	Approx. 100 mm at 100 mm distance
Laser:	Red light
Sensing range max.:	0 mm ... 100 mm, 0 mm ... 115 mm
Adjustment.:	Potentiometer, 2 rotations
Wave length:	680 nm

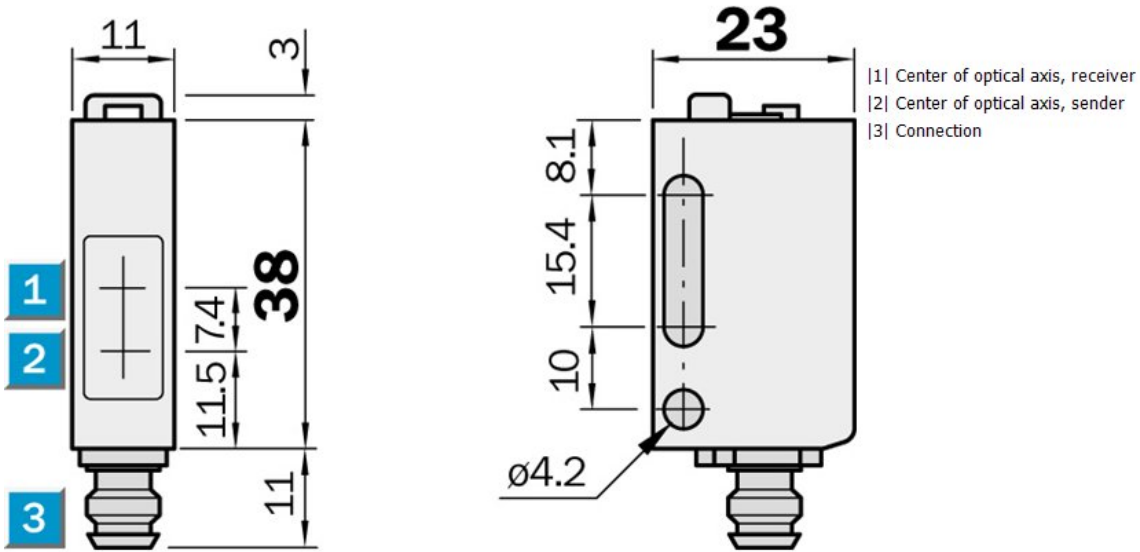
#### Technical data

Design:	Rectangular
Dimensions (W x H x D):	11 mm x 38 mm x 23 mm
Supply voltage min ... max:	DC 10 ... 30 V <sup>1)</sup>
Ripple:	± 10 %
Power consumption:	≤ 25 mA
Switching output:	PNP: open collector: Q
Switching mode:	Light-/dark-switching via rotary switch
Output current max.:	100 mA
Response time:	≤ 0.5 ms
Switching frequency:	1,000 Hz
Connection type:	Connector, M8, 4-pin
Circuit protection:	V <sub>S</sub> 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

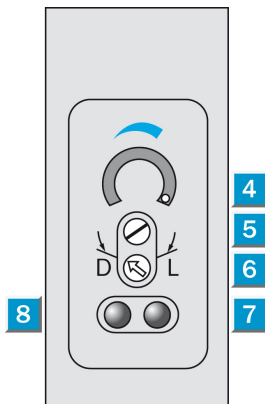
Housing material:	PBT
Signal voltage PNP HIGH/LOW:	Vs - 1.8 V / approx. 0 V
Angle of dispersion:	ca. 50 °
Series:	W160
Optics material:	PMMA
Housing design:	Vertical

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

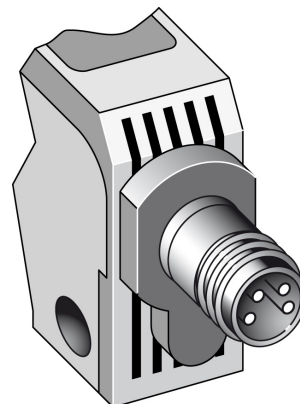
### Dimensional drawing



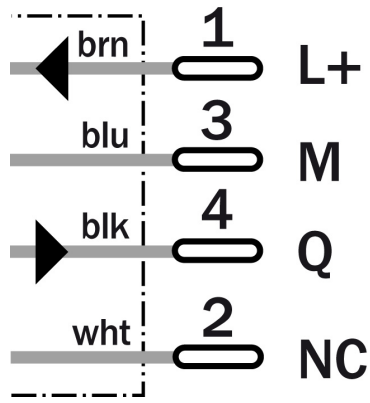
### Adjustment possible



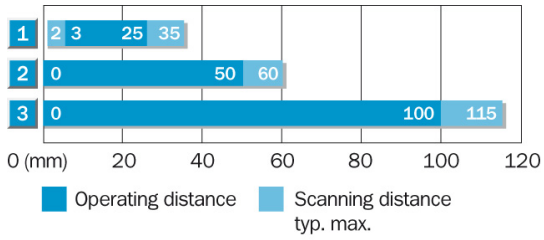
### Connection type



### Connection diagram

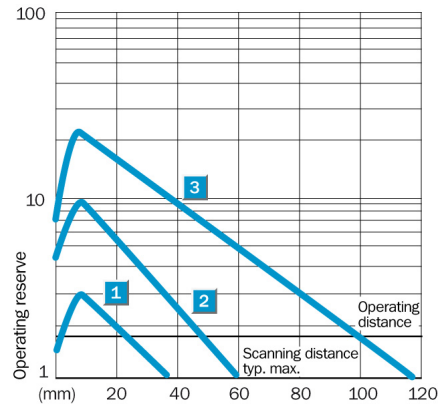


### Sensing range diagram



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

### Characteristic curve



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