



Photoelectric sensors  
Through-beam photoelectric sensor, Product  
group W160

WS/WE160-E430



**Model Name** > [WS/WE160-E430](#)  
**Part No.** > [6022748](#)



- Horizontal models
- Slotted masks (accessories) for detecting small objects or positioning jobs
- Red light as alignment aid
- Sensitivity adjustable
- LED indicator: operating reserve



**Product features**

Sensing range min ... max::	0 m ... 11 m, 0 m ... 15 m
Light source::	LED
Type of light:	Red light
Light spot diameter:	Approx. 1500 mm at 10 m distance
Laser:	Red light
Sensing range max.:	0 m ... 11 m, 0 m ... 15 m
Sensitivity adjustment:	Potentiometer, 2 rotations
Wave length:	680 nm

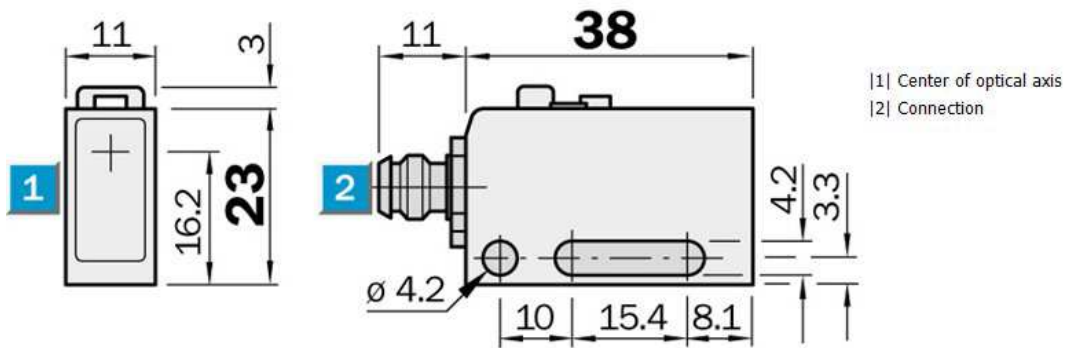
**Technical data**

Design::	Rectangular
Dimensions (W x H x D):	11 mm x 23 mm x 38 mm
Supply voltage min ... max.:	DC 10 ... 30 V <sup>1)</sup>
Ripple:	± 10 %
Output type:	NPN: open collector: Q
Switching mode:	Light/dark switching via rotary switch
Signal voltage NPN HIGH/LOW:	Approx. $V_S / < 1.8 V$
Output current max.:	100 mA
Response time::	≤ 0.5 ms
Switching frequency:	1,000 Hz
Connection type:	Connector, M8, 4-pin
Circuit protection:	$V_S$ connections reverse-polarity protected/In-/outputs short-circuit protected/Interference suppression/receiver only/Outputs overcurrent and short-circuit protected/receiver only
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
Angle of dispersion:	ca. 8.5 °

Power consumption, sender:	20
Power consumption, receiver:	≤ 20 mA
Series:	W160
Optics material:	PMMA
Angle of reception:	Ca. 15 °
Housing design:	Horizontal

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

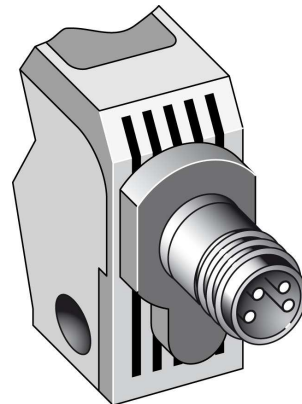
### Dimensional drawing



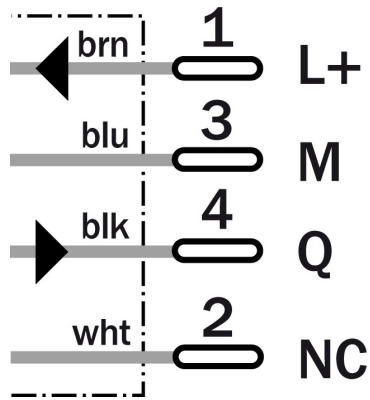
### Adjustment possible

Image Unavailable

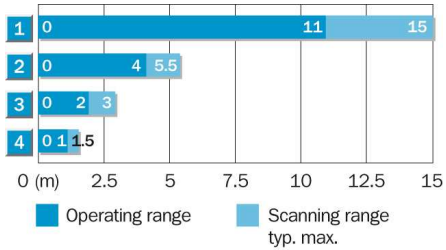
### Connection type



## Connection diagram

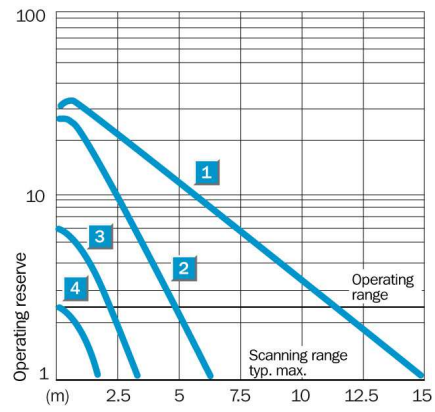


## Sensing range diagram



1	Without slotted mask
2	With slotted mask 2 mm, BL-160-SK
3	With slotted mask 1 mm, BL-160-SK
4	With slotted mask 0.5 mm, BL-160-SK

## Characteristic curve



**Australia**

Phone +61 3 9457 0600  
1800 33 48 02 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail marketing@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Česká republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail info@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6881000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 5309 2112  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederland**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail sick@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail sales.gsg@sick.com

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886 2 2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 88 65 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 (800) 325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)