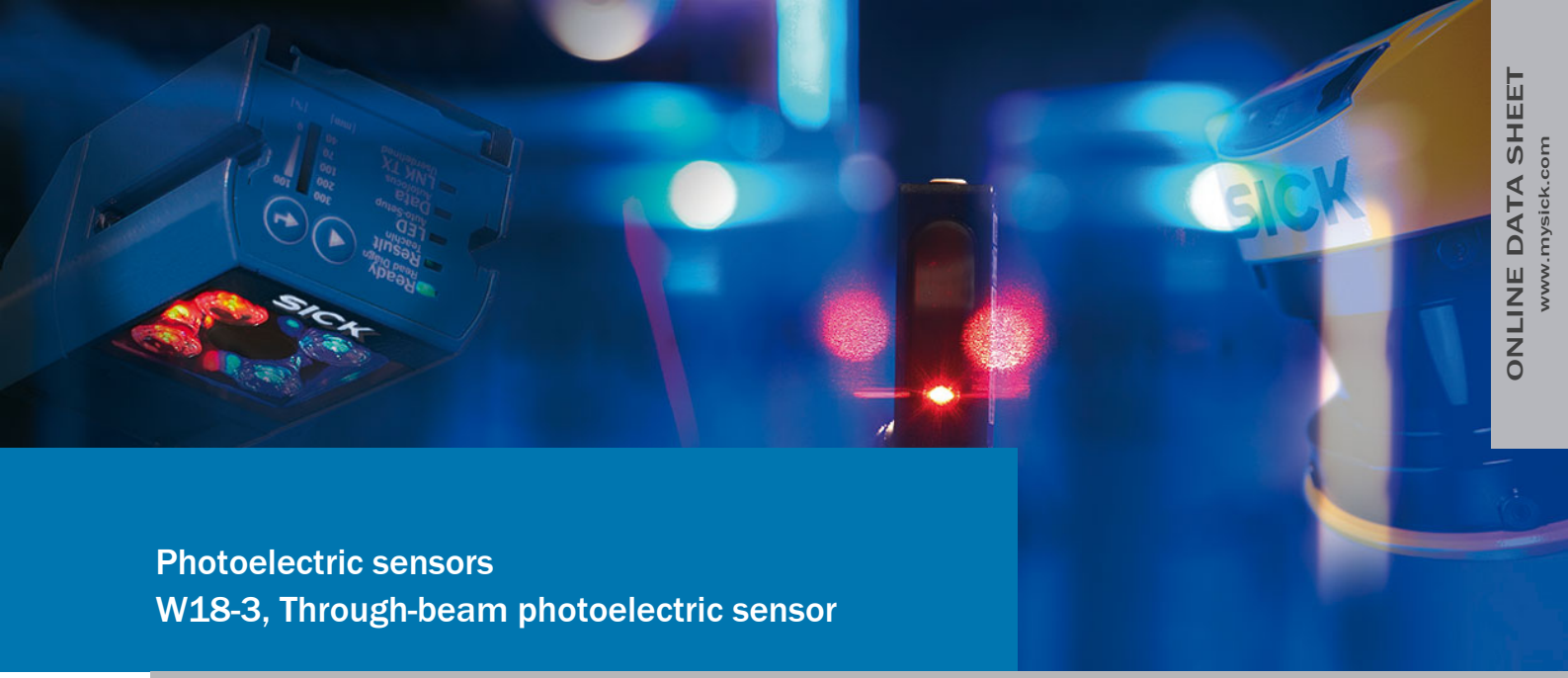


ONLINE DATA SHEET
www.mysick.com

Photoelectric sensors
W18-3, Through-beam photoelectric sensor

WS/WE18-3P430



SICK
Sensor Intelligence.

SICK
Sensor Intelligence.

Photoelectric sensors
W18-3, Through-beam photoelectric sensor

Type > WS/WE18-3P430
Part No. > 1025923



Illustration may differ

At a glance
- Sender LED with visible red light
- High operational reliability
- Immune to ambient light
- Test input for system diagnostics
- Rugged plastic housing

Your benefits
- Quick installation due to visible red light saves time
- Very high operating reserves for trouble-free operation, even at long distances
- Reliable operation due to integrated system diagnostics
- High availability in the field

Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	17.6 mm x 75.5 mm x 33.5 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 20 m
Type of light:	Visible red light
Light source:	LED [1)]
Angle of dispersion:	1.5 °
Adjustment:	Potentiometer, 1 turn
Light spot size (distance):	Ø 450 mm (15 m)
Continuous threshold adaption:	-

1) Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

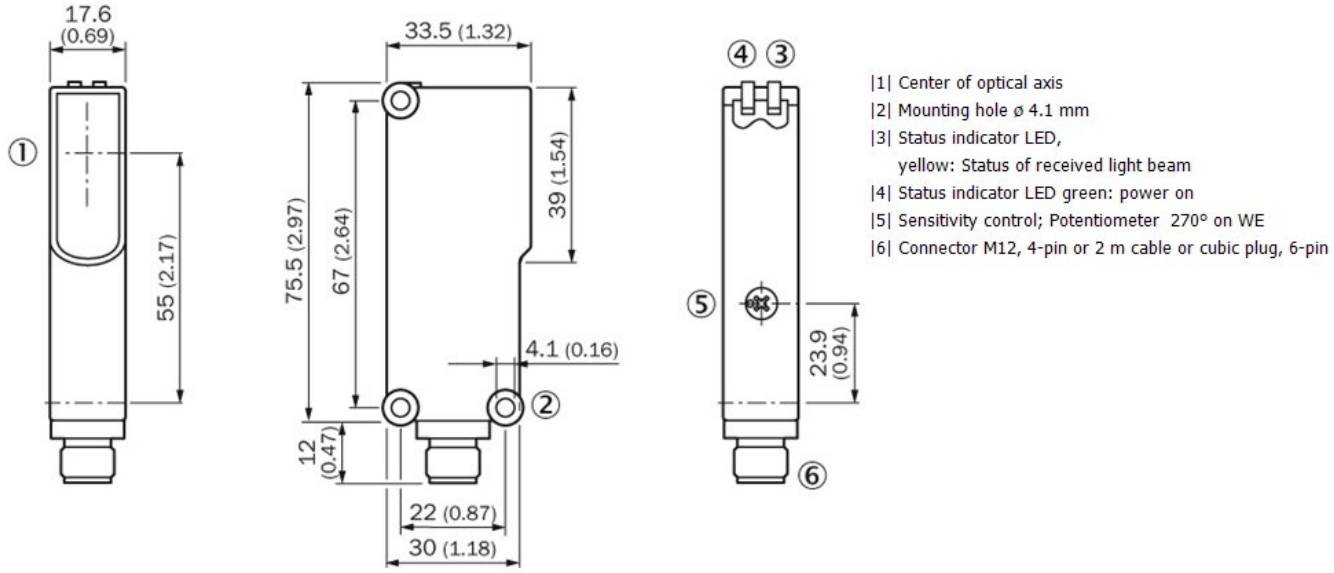
Supply voltage:	10 V DC ... 30 V DC [1)]
Ripple:	< 5 Vpp [2)]
Power consumption, sender:	< 45 mA [3)]
Power consumption, receiver:	< 35 mA [4)]
Output type:	PNP
Output function:	Complementary
Switching mode:	Light/dark switching
Output current Imax.:	100 mA
Response time:	< 500 µs [5)]

© SICK AG. Subject to change without notice.

Switching frequency:	1,000 Hz [6]
Angle of reception:	2 °
Connection type:	M12, 4-pin male connector
Circuit protection:::	A, C, D [7] [8] [9]
Weight:	40 g
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67
Test input sender off:	TE to 0 V
Ambient operating temperature:	-40 °C ... +60 °C
Ambient storage temperature:	-40 °C ... +75 °C
Part number of individual components:	Receiver, WE18-3P430, 2031003, Sender, WS18-3D430, 2031001
UL File No.:	NRKH.E181493 & NRKH7.E181493

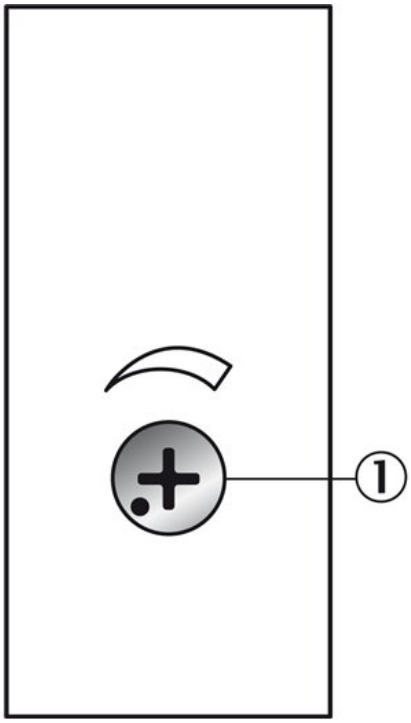
[1] Limit values, operation in short-circuit protected network max. 8 A [2] May not exceed or fall short of V_S tolerances [3] [4] Without load [5] Signal transit time with resistive load [6] With light/dark ratio 1:1 [7] A = V_S connections reverse-polarity protected [8] C = interference suppression [9] D = outputs overcurrent and short-circuit protected

Dimensional drawing



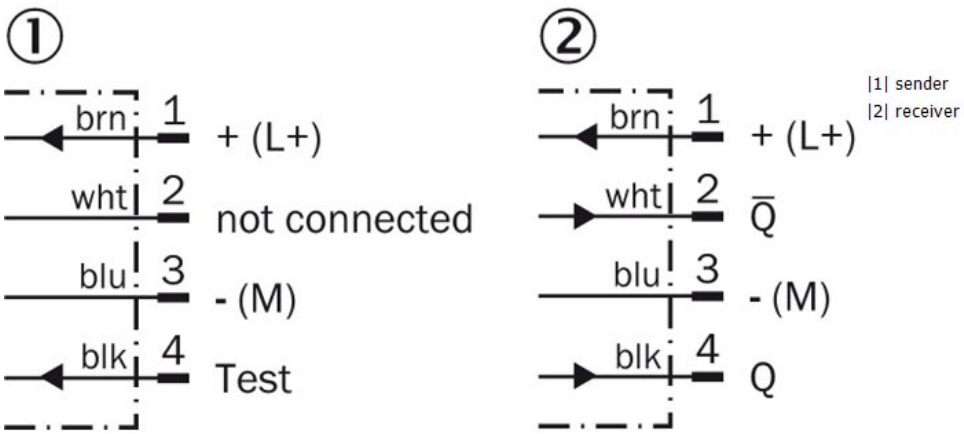
© SICK AG. Subject to change without notice.

Adjustments possible



|1| Sensing range adjustment: potentiometer, 4-turn

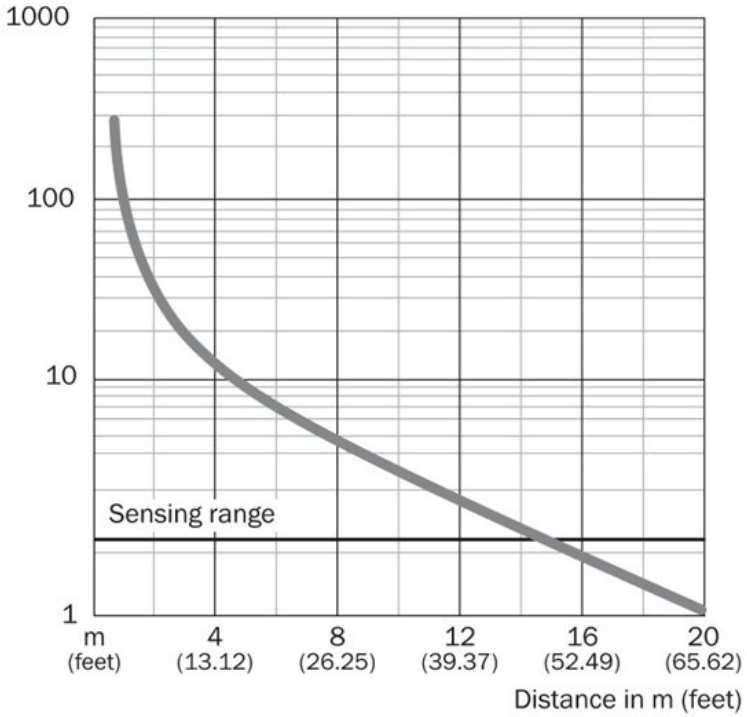
Connection diagram



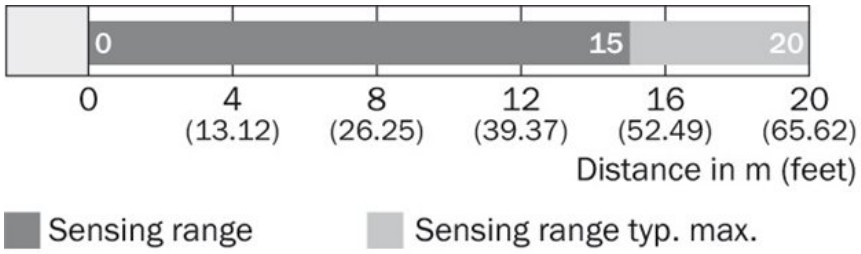
|1| sender
|2| receiver

© SICK AG. Subject to change without notice.

Characteristic curve

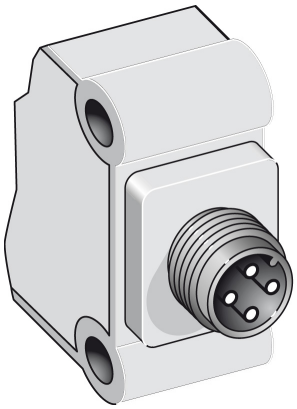


Sensing range diagram



© SICK AG. Subject to change without notice.

Connection type



© SICK AG. Subject to change without notice.

A4 4c int43

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**

SICK
Sensor Intelligence.