

ONLINE DATA SHEET
www.mysick.com

Fork sensors
WFM

WFM30-40P321



SICK
Sensor Intelligence.

SICK
Sensor Intelligence.

Fork sensors
WFM

Model Name > WFM30-40P321
Part No. > 6037819



Illustration may differ

At a glance

- Highly visible red emitted light
- No setup, out-of-the-box operation
- 360° output indicator
- 5 fork sizes: maximum depth 120 mm, maximum width 180 mm
- Rugged, IP 67 aluminum housing

Your benefits

- Fixed housings guarantee a high level of operational safety with simple commissioning
- A visible red light enables easy alignment and fast adjustment
- The 360-degree yellow output indicator makes continual process control possible
- A wide range of different fork sizes increases installation flexibility
- The aluminum housing meets all requirements for use in harsh industrial conditions

Features

Functional principle:	Optical detection principle
Fork width:	30 mm
Fork depth:	42 mm
Label detection:	-
Light source:	LED
Type of light:	Visible red light
Adjustment:	None
Output function:	Dark switching
Housing design (light emission):	Fork shaped
Minimum detectable object (MDO):	0.8 mm

Mechanics/electronics

Residual ripple [1]:	< 10 %
Power consumption [2]:	< 20 mA
Switching frequency [3]:	4 kHz
Response time [4]:	125 µs
Stability of response time:	± 15 µs
Output type:	NPN: HIGH = approx. VS/LOW ≤ 1.5 V PNP: HIGH = VS - ≤ 1.5 V/LOW = 0 V
Switching mode:	PNP
Output current Imax.:	100 mA

© SICK AG. Subject to change without notice.

Initialization time:	140 ms
Electrical connection:	Connector M8, 3-pin
Protection class [5]:	III
Circuit protection:	VS connections reverse-polarity protected Output Q short-circuit protected Interference suppression
Enclosure rating:	IP 67
Weight:	Ca. 80 g ... 190 g [6]
Housing material:	Aluminum, Metal
Supply voltage:	10 V DC ... 30 V DC [7]
Ambient light immunity:	Sunlight: ≤ 10,000 klx
Fieldbus interface:	-

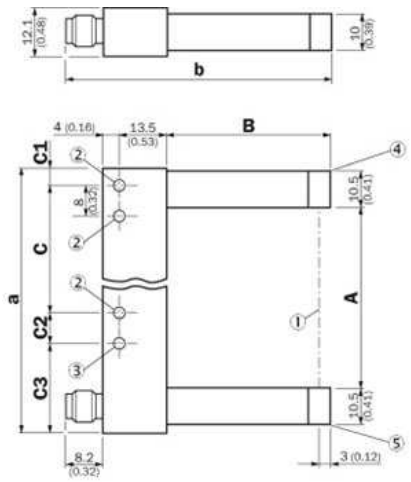
[1] May not exceed or fall short of V_S tolerances [2] Without load [3] With light/dark ratio 1:1 [4] Signal transit time with resistive load [5] Reference voltage DC 50 V [6] Depending on fork width [7] Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A

Ambient data

Shock load:	According to EN 60068-2-27
UL File No.:	NRKH.E191603 & NRKH7.E191603
Ambient temperature operation:	-10 °C ... +60 °C [1]
Ambient storage temperature:	-40 °C ... +80 °C

[1] Do not bend below 0 °C

Dimensional drawing



Dimensions in mm (inch)

	A (Fork width)	B (Fork depth)	C	C1
WFM30	30 (1.18)	42 (1.65)	30 (1.18)	6.5 (0.26)
WFM50	50 (1.97)	60 (2.36)	40 (1.57)	6.5 (0.26)
WFM80	80 (3.15)	60 (2.36)	70 (2.76)	6.5 (0.26)
WFM120	120 (4.72)	124.3 (4.89)	100 (3.94)	17 (0.67)
WFM180	180 (7.09)	124.3 (4.89)	152 (5.98)	22 (0.87)

	C2	C3	a	b
WFM30	- (-)	- (-)	54 (2.13)	67.7 (2.67)
WFM50	8 (0.31)	19.5 (0.77)	74 (2.91)	85.7 (3.37)
WFM80	8 (0.31)	19.5 (0.77)	104 (4.09)	85.7 (3.37)
WFM120	10 (0.39)	17 (0.67)	144 (5.67)	150.2 (5.91)
WFM180	8 (0.31)	22 (0.87)	204 (8.03)	150.2 (5.91)

|1| Optical axis
|2| Mounting hole, Ø 4.3 mm
|3| WFM50/80/120/180
|4| Transmitted light (red)
|5| Function signal indicator (yellow), switching output

© SICK AG. Subject to change without notice.

Anschlussart und -schema



© 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.