



Photoelectric sensors
DeltaPac, Photoelectric proximity sensor

WTD20EC-V3419S01



Model Name > [WTD20EC-V3419S01](#)
Part No. > [1069260](#)



Illustration may differ

At a glance

- Delta-S technology®: four PinPoint emitters and two receivers combined with SIRIC® and distance measurement technology
- Direction-independent object contours with radius up to 20 mm
- For conveyor speeds up to 1.2 m/s or production capacities up to 55,000 packages per hour
- Pre-configured sensors and individual setting via IO-Link
- Compact housing (42 mm x 42 mm x 45 mm) with an IP 67 enclosure rating

Your benefits

- Selective process optimization: information about the number of packages in the process enables better production monitoring
- Better space utilization: no mechanical devices are required to isolate packages, reducing the width of packaging systems and saving space
- Better time management: packages run in push-push mode, which prevents collisions and toppling, and reduces machine downtime
- Stable production for reduced energy consumption
- Fast and intuitive commissioning due to pre-configuration
- Configuration via the IO-Link enables users to customize features based on the applications
- Space-saving mounting due to compact housing



Features

Sensor/detection principle:	Photoelectric proximity sensor
Dimensions (W x H x D):	42 mm x 42 mm x 45 mm
Housing design (light emission):	Rectangular
Sensing range max.:	30 mm ... 40 mm ¹⁾
Sensing range:	30 mm ... 40 mm
Type of light:	Visible red light
Light source:	PinPoint LED ²⁾
Wave length:	635 nm
Special features:	The sensor contains an optimized logic of internal signals, especially made for glossy packages. On and Off delay (Q1): 50 ms (adjustable via IO-Link).
Light spot size (distance):	4 x Ø 1 mm (30 mm)
Background suppression:	≥ 80 mm
Optimized parameterization for the following objects:	Rounded, rounded out and prism shaped packaging, such as beverage cartons and soft packaging
Key feature of the object:	Rounded out body and prism shaped

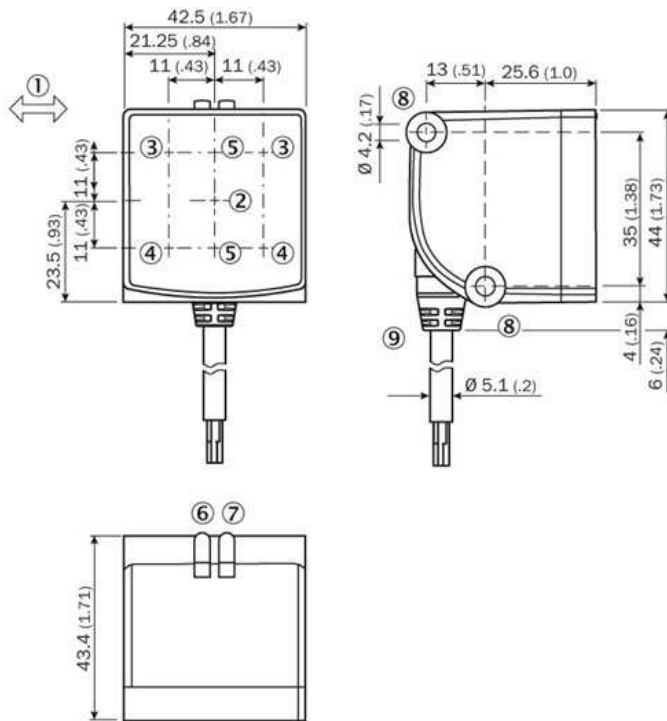
1) The sensing range max. refers to the object leading edge. The individual object leading edges must be within the operating range 2) Average service life: 100,000 h
 at $T_U = +25\text{ °C}$

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Residual ripple:	$\leq 5\text{ Vpp}$ ²⁾
Power consumption:	$\leq 70\text{ mA}$ ³⁾
Output type:	PNP
Output current I _{max.} :	$\leq 2 \times 100\text{ mA}$
Electrical connection:	Cable with connector M12, 4-pin, 270 mm
Circuit protection:::	A, B, C ^{4) 5) 6)}
Protection class:	III
Weight:	130 g
IO-Link:	✓
Special device:	-
Enclosure rating:	IP 67
Ambient operating temperature:	-40 °C ... +55 °C
Ambient storage temperature:	-40 °C ... +75 °C
Productivity max.:	200,000 Stk./h
Pulse length (Q2):	$\leq 20\text{ ms}$
Switch on delay Q1 & Q2:	0 ms ... 255 ms ⁷⁾
Time delay off Q1:	0 ms ... 255 ms ⁸⁾
Object speed max.:	3 m/s
Radius of the object contour:	2 mm ... 20 mm
Switching accuracy:	$\leq 2 \times \text{radius}$
Repeatability (Ta not constant):	Typ. < 1 mm
Object width min.:	$\leq 20\text{ mm}$
Object height min.:	50 mm
Housing material:	Plastic, Bayblend
Transmission rate:	COM2

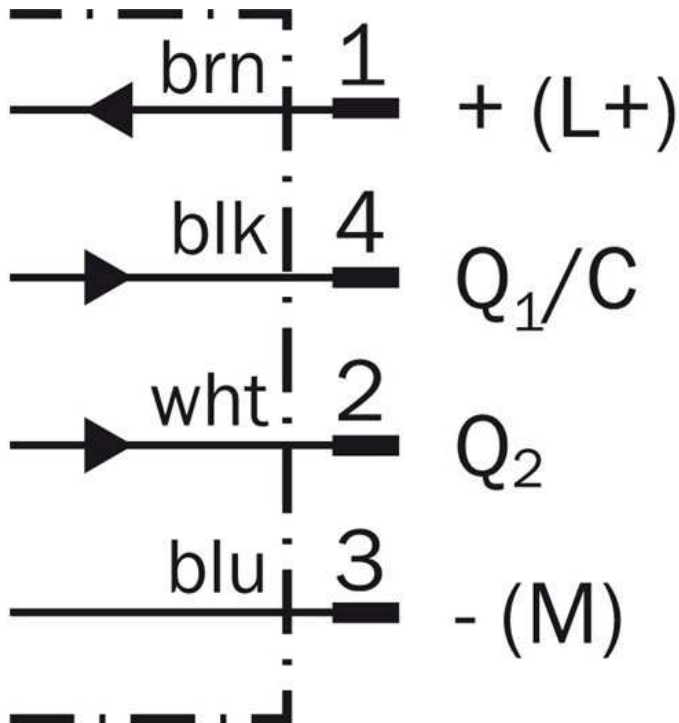
1) Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A ²⁾ May not exceed or fall below U_V tolerances ³⁾ At 24 V ⁴⁾ $A = V_S$
 connections reverse-polarity protected ⁵⁾ B = inputs and output reverse-polarity protected ⁶⁾ C = interference suppression ^{7) 8)} V Settable via IO-Link. Preset 50 ms

Dimensional drawing



- |1| Standard direction
- |2| Center of optical axis, sender
- |3| Center of optical axis, receiver (first energy scale)
- |4| Center of optical axis, receiver (second energy scale)
- |5| Optical axis, receiver
- |6| LED indicator orange: status of received light beam, presence signal Q1
- |7| Status indicator LED green: supply voltage on
- |8| Mounting hole
- |9| Connection (rotatable)

Connection diagram



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