



Czujniki widelkowe WFS

WFS3-40N415



Nazwa modelu > **WFS3-40N415**

Numer części > **6043920**



At a glance

- Optimized housing with slim fork shape
- Dynamic teach-in IO Link or control panel and manual fine adjustment with "+" / "-" buttons
- Light/dark switching function
- Fast response time of 35 µs
- PNP or NPN
- IP 65 plastic housing
- Switching output also during teach-in active
- IO-Link version 1.1

Your benefits

- Slim design allows flexible mounting close to the dispenser of the label which ensures higher accuracy in the process
- Compact housing ensures space-saving installation
- User friendly adjustment allows easy and quick start-up
- IO Link or external teach-in allows automatic threshold adjustment via the PLC during the process which ensures reliable detection all the time
- Short and fast response times enables precise detection - even at high web speeds
- IO-Link provides easy data access from the PLC
- Quick and easy integration using function blocks
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link



Cechy

Sposób działania:	Optical detection principle
Fork width:	3 mm
Fork depth:	42 mm
Label detection:	✓
Nadajnik światła:	LED
Rodzaj światła:	Światło podczerwone
Nastawa:	Manual ("+" / "-" button) Dynamic teach-in Static teach-in
Tryb przełączania:	Light/darkswitching, selectable via button
Housing design (light emission):	Fork shaped
IO-Link:	-
Minimum detectable object (MDO):	Size of labels: 2 mm, Gap between labels: 2 mm ¹⁾

¹⁾ Depends on the label thickness

Mechanika/elektronika

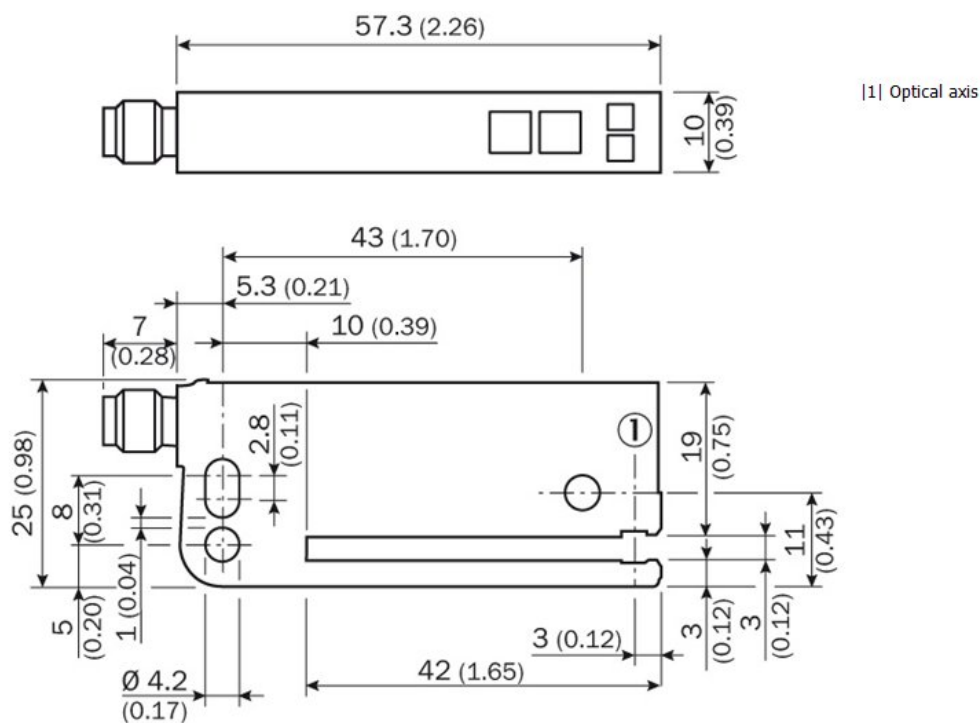
Tętnienia resztkowe ¹⁾ :	< 10 %
Pobór prądu ²⁾ :	20 mA
Switching frequency ³⁾ :	20 kHz
Czas reakcji ⁴⁾ :	50 µs
Stability of response time:	± 20 µs
Wyjście przełączające:	NPN: HIGH = approx. VS / LOW ≤ 2 V
Tryb przełączania:	NPN
Output current I _{max} :	100 mA
Input, teach-in (ET):	NPN: Run: $U > (U_V - 5 \text{ V})$ Teach: $U < (U_V - 6 \text{ V})$
Initialization time:	20 ms
Sposób przyłączenia:	Connector M8, 4-pin
Klasa ochronności:	III
Układ zabezpieczenia:	Vs connections reverse-polarity protected Wyjście Q zabezpieczone przed zwarciami Tłumienie interferencji
Rodzaj zabezpieczenia:	IP 65
Ciężar:	≥ ca. 36 g
Housing material:	Tworzywo sztuczne, PA (glass-fiber reinforced)
Napięcie zasilania:	10 V DC ... 30 V DC ⁵⁾
Bezpieczna jasność otoczenia:	≤ 10.000 lx
Fieldbus interface:	-

¹⁾ May not exceed or fall short of V_S tolerances ²⁾ Bez obciążenia ³⁾ With light/dark ratio 1:1 ⁴⁾ Signal transit time with resistive load ⁵⁾ Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A

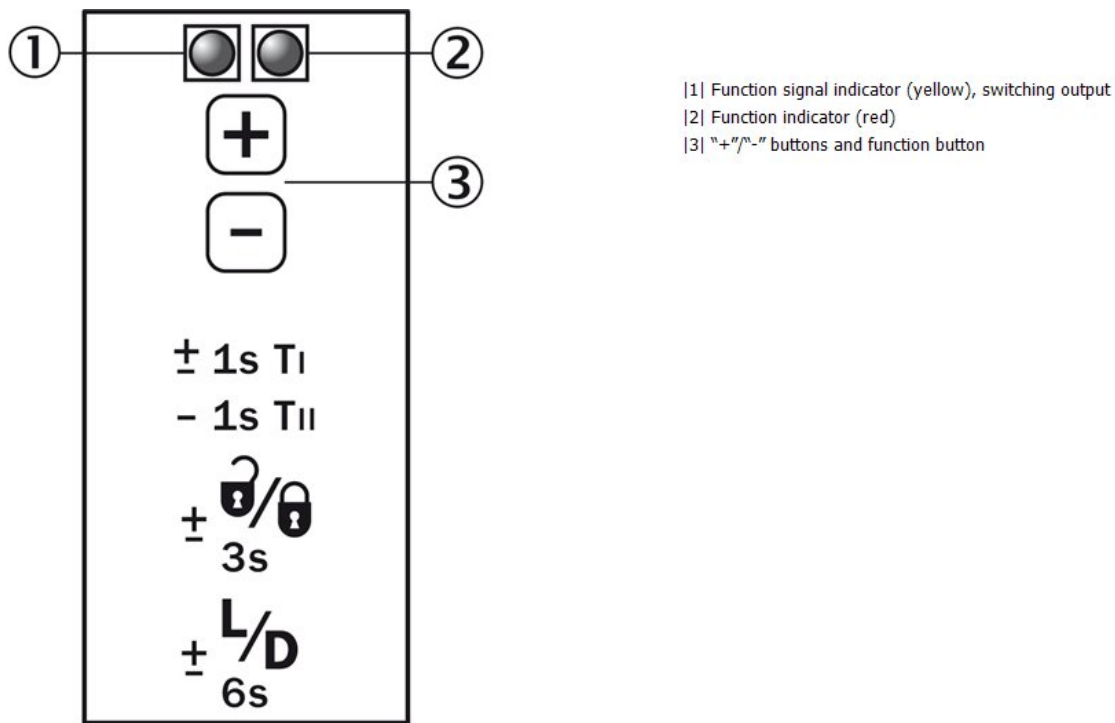
Dane otoczenia

Obciążenie uderzeniowe:	According to EN 60068-2-27
Ambient operating temperature:	-20 °C ... +60 °C ¹⁾
Ambient storage temperature:	-30 °C ... +80 °C

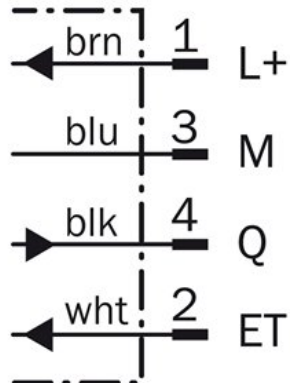
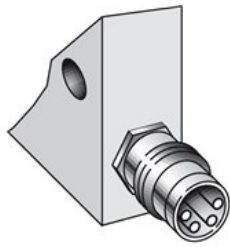
¹⁾ Do not bend below 0 °C



Adjustments



Anschlussart und -schema



Bedienhinweis

1. Position label or substrate in the active area of the fork sensor

2. Move multiple labels through the fork sensor



Press both the "+" and "-" buttons together, hold > 1 s and then release the teach-in buttons. The red LED flashes.



Press "-" button, teach-in process is finished.

Notes

Switching threshold adaptation:

Only, the first teach-in procedure after switching on is permanently stored. Teach-in can be repeated cyclically. Switching output also during teach-in active.

Once teach-in process is complete, the switching threshold can be adjusted at any time using the "+" or "-" button. To make minor adjustments, press the "+" or "-" button once. To configure settings quickly, keep the "+" or "-" button pressed for longer.

$\pm \frac{0}{3s}$ Press both the "+" and "-" buttons together (3 seconds) to lock the device and prevent unintentional actuation.

$\pm \frac{L}{6s}$ Press both the "+" and "-" buttons together (6 seconds) to define the switching function (light/dark switching). Standard setting: Q = light switching.

Teach-in (static): Setting the switching threshold without movements of label, cf. operating instruction.

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