Product family overview



WFS

Precise detection for optimum label detection

FORK SENSORS

SICK
Sensor Intelligence.



Technical data overview

Functional principle	Optical detection principle
Fork width	3 mm
Fork depth	42 mm
MDO	Gap between Labels / Size of labels: 2 mm [1]
Light source	LED, infrared, Infrared light
Switching frequency	10 kHz [2] 15 kHz [3]
Response time	50 µs [4] 46 µs [4]
Connection type	Male connector M8, 4-pin Cable, 4-wire 2 m
IO-Link functions	– / ✓, –standardAdvanced
Advanced functions	– Time measurement + decentralized debouncing High speed counter + decentralized debouncing (depending on type)

[1] Depends on the label thickness.
[2] With light/dark ratio 1:1.
[3] With light/dark ratio 1:1, typical, during teach-in 6 kHz.
[4] Signal transit time with resistive load.

Product description

The slim, forked shape of the WFS has been specially developed for the requirements of the labeling process. The design allows the sensor to be mounted directly on the edge of a label dispenser. Difficulty in detecting the label gap is finally eliminated – the sensor's switching threshold can be taught-in while the label strip is running. This sophisticated operating concept means the sensor can be adjusted to different labels quickly, easily, and reliably. The fast response time guarantees exceptional repeat accuracy.

At a glance

- Housing with slim forked shape
- Simple and precise setting of the switching threshold via IO-Link, teach-in button, or plus/minus buttons
- Light/dark switching function
- Fast response time: 50 µs
- PNP or NPN switching output
- Plastic housing with IP 65 enclosure rating
- Smart sensor with integrated IO-Link interface

Your benefits

- Flexible and simple mounting directly on the edge of a label dispenser ensures a high level of accuracy in the process
- Small housing allows simple installation even where space is limited
- User-friendly adjustment allows easy and quick commissioning
- Fast response times enable precise detection – even at very high track speeds
- Thanks to IO-Link or external teach-in, the switching threshold can be adapted while the process is running, increasing process reliability
- Easy to access data from the PLC via IO-Link

Fields of application

Packaging industry: Detection of non-transparent labels on different web materials
Double sheet detection

Ordering information

Other models and accessories ➜ www.sick.com/WFS

- **Communication interface:** -
- **Adjustment:** Plus/minus button, cable
- **Light source:** LED, infrared
- **Fork width:** 3 mm
- **Fork depth:** 42 mm
- **Switching mode:** Light/dark switching

Switching output	Connection type Detail	Type	Part no.
NPN	Cable, 4-wire	WFS3-40N115	6055434
	Male connector M8, 4-pin	WFS3-40N415	6043920
PNP	Cable, 4-wire	WFS3-40P115	6055433
	Male connector M8, 4-pin	WFS3-40P415	6043919

- **Communication interface:** IO-Link
- **Adjustment:** Plus/minus button, cable
- **Light source:** LED, infrared
- **Fork width:** 3 mm
- **Fork depth:** 42 mm
- **Switching mode:** Light/dark switching
- **Connection type Detail:** male connector M8, 4-pin

Switching output	Type	Part no.
NPN	WFS3-40N41C	6053766
PNP	WFS3-40P41C	6053765

- **Communication interface:** IO-Link
- **Adjustment:** Teach-in button, cable
- **Light source:** LED, infrared
- **Fork width:** 3 mm
- **Fork depth:** 42 mm
- **Switching output:** push-pull: PNP/NPN
- **Switching mode:** Light/dark switching
- **Connection type Detail:** male connector M8, 4-pin

Type	Part no.
WFS3-40B41CA00	6058649
WFS3-40B41CA70	6058650
WFS3-40B41CA71	6058651

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com