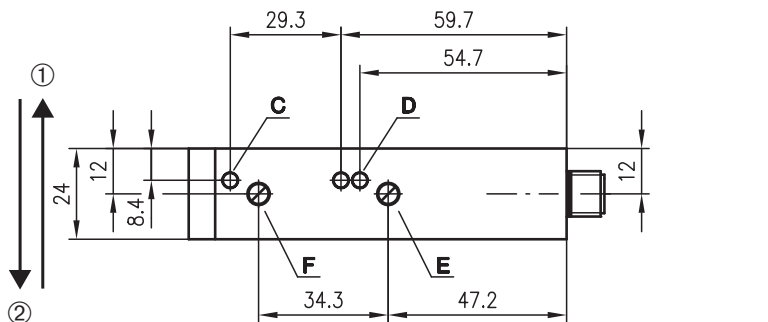
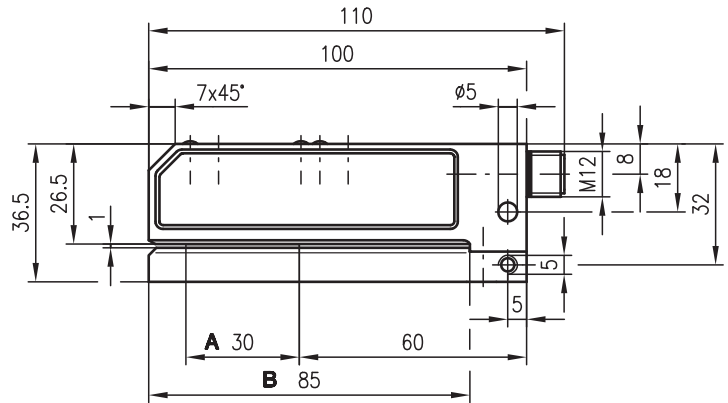


GK 14

Dimensioned drawing

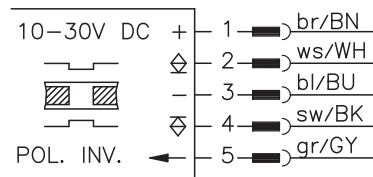


GK 14/24 L.2

- A Sensor
- B Mouth depth
- C Display switching output
- D Display base adjustment
- E Base adjustment
- F Sensitivity adjustment:
Clockwise rotation = increase sensitivity

① + ② Direction of label-tape movement

Electrical connection



1mm



- Forked sensor for reliable detection of transparent and opaque labels
- PNP and NPN transistor output for optimum adaptation to the controller
- Robust metal housing with beveled inlet edges
- Inverting input for easy adaptation of the output signal level



Accessories:

(available separately)

- M12 connectors (KD ...)
- Ready-made M12 cables (K-D...)

Specifications

Optical data

| | |
|-------------|----------------|
| Mouth width | 0.9mm ± 0.1 mm |
| Mouth depth | 85mm |

Timing

| | |
|-----------------------------------|---------|
| Switching frequency ¹⁾ | 5000Hz |
| Response time | 0.1 ms |
| Delay before start-up | ≤ 100ms |

Electrical data

| | |
|--------------------------|--|
| Operating voltage U_B | 10 ... 30VDC (incl. residual ripple) |
| Residual ripple | ≤ 15% of U_B |
| Open-circuit current | ≤ 35mA |
| Switching output | 1 PNP transistor output 1 NPN transistor output |
| Function characteristics | direction dependent, reversible |
| Signal voltage high/low | ≥ ($U_B - 2V$) / ≤ 2V |
| Output current | 200mA |
| Sensitivity | adjustable with multiturn potentiometer |
| Base adjustment | adjustable with multiturn potentiometer |

Indicators

| | |
|-----------------|-----------------|
| Yellow LED | label/gap |
| LED yellow (2x) | base adjustment |

Mechanical data

| | |
|-----------------|----------------------|
| Housing | aluminum, anodized |
| Weight | 175g |
| Connection type | M12 connector, 5-pin |

Environmental data

| | |
|-----------------------------------|---------------|
| Ambient temp. (operation/storage) | 0°C ... +60°C |
| Protective circuit ²⁾ | 1, 2 |
| VDE safety class | III |
| Protection class | IP 65 |

Options

| | |
|--------------------------|-------------|
| Inverting input high/low | ≥ 8V / ≤ 2V |
| Input resistance | 10kΩ |

1) Max. label speed 10m/s, min. label gap 2mm

2) 1=polarity reversal protection, 2=short-circuit protection for all outputs

Remarks

● Switching behavior dependent on the infeed direction

Depending on the direction of movement of the label tape through the sensor, the following switching behavior occurs at the outputs:

| Direction of movement | Switching outputs pin 2 + pin 4 | |
|-----------------------|---------------------------------|----------------------------------|
| | Pin 5 not connected or 0V | Operating voltage U_B at pin 5 |
| ① | Signal in the gap | Signal on the label |
| ② | Signal on the label | Signal in the gap |

● Mounting

For optimum function of the capacitive forked sensor, the sensor should be mounted on a metallic machine part. A lock washer (e.g. DIN 6797) should be placed under the screw head to secure the sensor.

Order guide

| | Designation | Part No. |
|----------------|--------------|----------|
| Rear connector | GK 14/24 L | 50026371 |
| Top connector | GK 14/24 L.2 | 50031714 |

Tables

Diagrams

Remarks

Operate in accordance with intended use!

- ⚠ This product is not a safety sensor and is not intended as personnel protection.
- ⚠ The product may only be put into operation by competent persons.
- ⚠ Only use the product in accordance with the intended use.

● Base setting

- Set sensitivity to max. (turn potentiometer to the right), then turn back 1/2 turn to the left.
- Base adjustment without label tape such that both LEDs are equally bright.
- If necessary, reduce the sensitivity setting (in steps of 1/4 turn to the left).

● Base adjustment

Perform after new mounting, cleaning, sensitivity increase.

● Switching behavior

A signal change at the switching output occurs when a label enters at the minimum speed. The output signal remains constant until the next edge of an exiting or entering label is detected.