

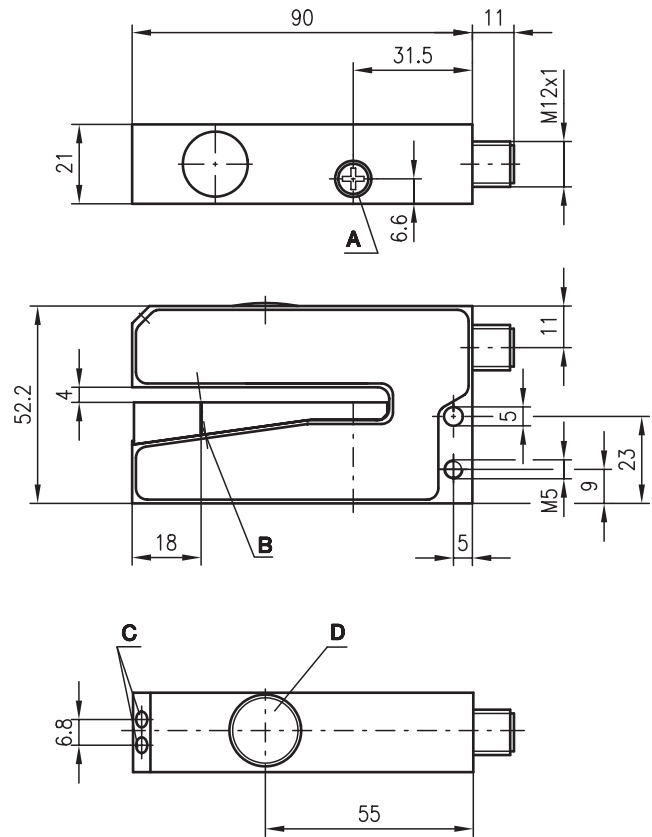


GSU 14/24

Ultrasonic Label Fork



Dimensioned drawing



4mm



- Forked sensor for reliable detection of:
  - foil labels on foil carrier
  - foil labels on paper carrier
  - paper labels on paper carrier
  - metallised foil labels
  - thin metal foils
- Simple adjustment via teach-in by pressing a button or remote calibration
- Static PNP and NPN transistor outputs for optimum adaptation to the controller
- Robust metal housing with bevelled inlet edges and M12 connector

- A The support table can be removed and cleaned after loosening the screw
- B Sensor marker
- C Indicator diode
- D Teach-in button

Electrical connection

GSU 14/24 L	
10-30V DC +	1 —■—) br/BN
○ ⊕	2 —■—) ws/WH
GND	3 —■—) bl/BU
○ ⊖	4 —■—) sw/BK
Teach in	5 —■—) gr/GR

GSU 14/24 DL	
10-30V DC +	1 —■—) br/BN
● ⊕	2 —■—) ws/WH
GND	3 —■—) bl/BU
● ⊖	4 —■—) sw/BK
Teach in	5 —■—) gr/GR

We reserve the right to make changes • gs\_a01e.fm



Accessories:

(available separately)

- M12 connectors (KD ... )



## Specifications

### Physical data

Mouth width	4mm
Mouth depth	67mm
Label length	≥ 2mm
Label spacing	≥ 2mm
Band speed	≤ 2m/s (120m/min)
Repeatability <sup>1)</sup>	± 0.2mm
Delay before start-up	≤ 100ms

### Electrical data

Operating voltage U <sub>B</sub>	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U <sub>B</sub>
Bias current	≤ 60mA
Switching outputs	PNP and NPN transistor output
Function characteristics	light/dark switching
Signal voltage high/low	≥ (U <sub>B</sub> -2V)/≤ V
Output current	200mA

### Indicators

LED green	ready
LED green flashing	teach-in activated
LED yellow	switching point in the label gap

### Mechanical data

Housing	aluminium, anodised
Colour	red/black
Weight	300g
Connection type	M12 connector, 5-pin

### Environmental data

Ambient temp. (operation/storage)	0°C ... +60°C/-40°C ... +70°C
Protective circuit <sup>2)</sup>	1, 2
VDE safety class	III
Protection class	IP 65
Standards applied	IEC 60947-5-2

### Options

<b>Teach-in input</b>	
Active/not active	≥ 8V/≤ 2V
Activation/disable delay	≤ 0.2ms
Input resistance	10kΩ

1) material dependent

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

## Order guide

	Designation	Part No.
<b>light switching</b> (signal in the label gap)	GSU 14/24 L	500 61406
<b>dark switching</b> (signal on the label)	GSU 14/24 DL	500 37974

## Remarks

### Function

#### Manual teach-in

1. Insert label band at the correct position (band's center at sensor's marker).
2. The button on the device is pressed to teach - green LED flashes.
3. Label tape advances so that 2 ... 3 label gaps pass through the measuring zone.
4. The button is then pressed again. The green LED illuminates continuously. The teaching process is concluded.

### Function

#### Remote teach-in

1. Insert label band at the correct position (band's center at sensor's marker).
2. Apply voltage at "Teach in" control input. Teach-in is activated.
3. Advance 2 ... 3 label gaps through the sensor.
4. Disconnect voltage.

Measurement values are stored. Teach-in ends after 100ms.

- To achieve high repeatability, the label band must be slightly under tension.
- The label band's center should be positioned above the sensor's marker (see also there).
- The label material used determines the achievable precision and the reliability of gap detection!