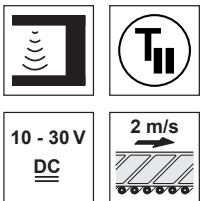


GSU 06

Ultrasonic Label Fork

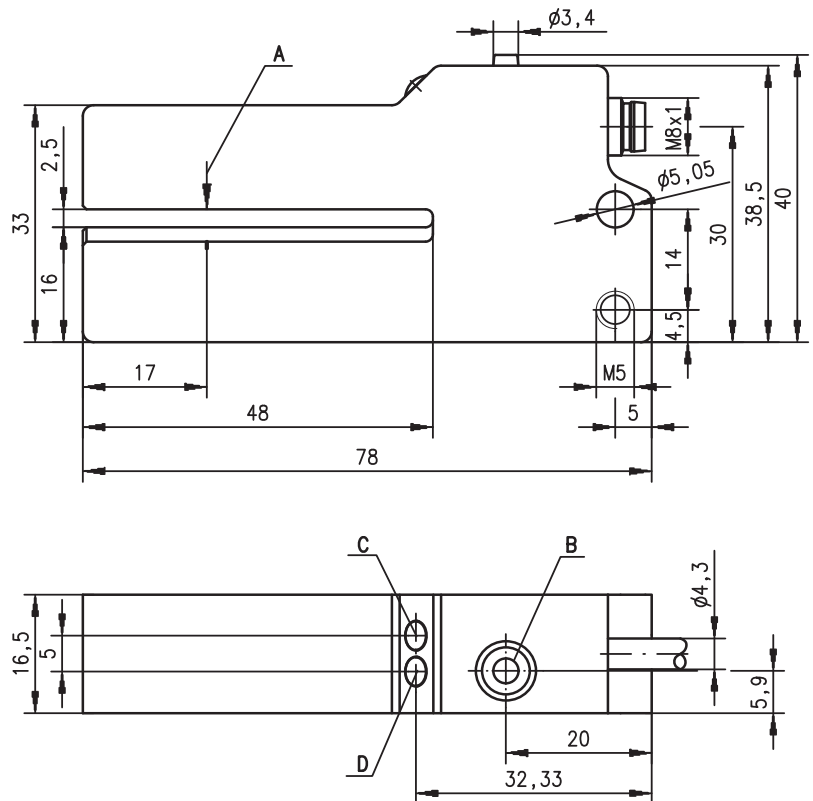
en 07-2011/01 50040961



2.5mm

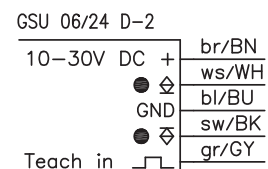
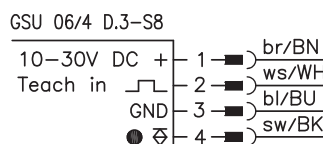
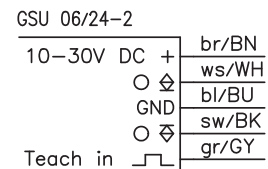
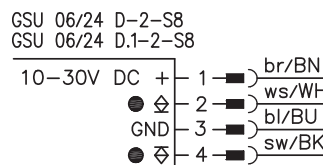
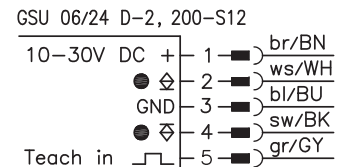
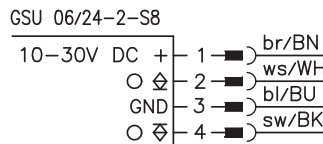
- Forked sensor for reliable detection of:
  - foil labels on foil carrier
  - foil labels on paper carrier
  - paper labels on paper carrier
  - metallic foil labels
  - thin metal foils
- Special variant for tape-tear monitoring
- Simple adjustment via teach-in by pressing a button or remote calibration <sup>1)</sup>
- Static PNP and NPN transistor outputs for optimum adaptation to the controller
- Robust metal housing with beveled inlet edges
- M8/M12 connector or cable version

Dimensioned drawing



- A** Sensor marker
- B** Teach-in button <sup>1)</sup>
- C** Teach-in indicator diode <sup>1)</sup>
- D** Indicator diode switching output

Electrical connection



Accessories:

(available separately)

- M8/M12 connectors (KD ...)
- Ready-made cables M8/M12 (K-D ...)

We reserve the right to make changes • DS\_GSU06\_24\_en.fm



## Specifications

### Physical data

Mouth width	2.5mm
Mouth depth	48mm
Label length <sup>1)</sup>	≥ 2mm
Label gap <sup>1)</sup>	≥ 2mm
Conveyor speed	≤ 2m/s (120m/min)
Repeatability <sup>1) 2)</sup>	± 0.3mm
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	≤ 40mA
Switching outputs	PNP and NPN transistor output
Function characteristics	light or dark switching
Signal voltage high/low	≥ ( $U_B - 2V$ ) ≤ 2V
Output current	2x100mA

### Indicators

Green LED	ready
Green LED, flashing	teach-in activated
Yellow LED	switching point in the label gap

### Mechanical data

Housing	aluminum, anodized
Color	red/black
Weight	150g (connector/cable 60g)
Connection type	M8 connector, 4-pin, or 2000mm cable, 5-pin, or cable 200mm with M12 connector, 5-pin

### Environmental data

Ambient temp. (operation/storage)	+5°C ... +50°C/-40°C ... +70°C
Protective circuit <sup>3)</sup>	1, 2
VDE safety class	III
Protection class	IP 62
Standards applied	IEC 60947-5-2

### Options (cable version)

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

1) Not applicable for GSU 06/24D.1-2-S8

2) Material dependent

3) 1=polarity reversal protection, 2=short-circuit protection for all outputs

## Order guide

### Light switching

(signal in the label gap)

With M8 connector,  
teach-in by pressing a button

**Designation**                      **Part No.**

GSU 06/24-2-S8                      50039638

With 2m cable,  
teach-in by pressing a button or via remote calibration

GSU 06/24-2                          50040191

### Dark switching

(signal on the label)

With M8 connector,  
teach-in by pressing a button

GSU 06/24D-2-S8                      50040190

With M8 connector,  
teach-in by pressing a button or via remote calibration <sup>1)</sup>

GSU 06/4D.3-S8                      50102921

With 2m cable,  
teach-in by pressing a button or via remote calibration

GSU 06/24D-2                          50040192

With 0.2m cable with M12 connector,  
teach-in by pressing a button or remote calibration

GSU 06/24D-2, 200-S12              50108819

With M8 connector,  
specifically for tape-tear monitoring, without adjustment

GSU 06/24D.1-2-S8                      50105735

1) When using right-angle plugs: cable outlet should point upward!

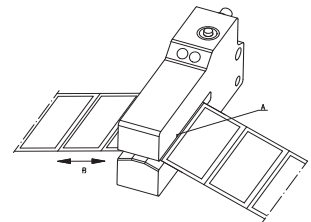
## Calibration <sup>1)</sup>

### Manual teach-in

- Insert label tape.
- The button on the device is pressed to teach - green LED flashes.
- Label tape advances so that 5 ... 10 label gaps pass through the measuring zone.
- The button is then pressed again. The green LED illuminates continuously. The teaching process is concluded.

### Remote teach-in

- Insert label tape.
- Apply voltage at "Teach in" control input. Teach-in is activated.
- Advance 5 ... 10 label gaps through the sensor.
- Remove voltage. Teach-in is finished



- A Sensor center, marker
- B Label run

## Remarks

- **Approved purpose:**  
This product may only be used by qualified personnel and must only be used for the approved purpose. This sensor is not a safety sensor and is not to be used for the protection of persons.
- The center of the label tape should be positioned above the sensor's marker (A).
- To achieve high repeatability, the label tape must be slightly under tension (B).
- The label material used determines the achievable precision and the reliability of gap detection!
- With special variant GSU 06/24D.1-2-S8 for tape-tear monitoring, no adjustment is necessary.