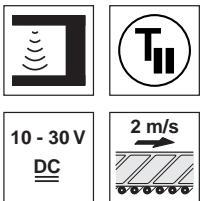


GSU 06

Ultrasonic Label Fork

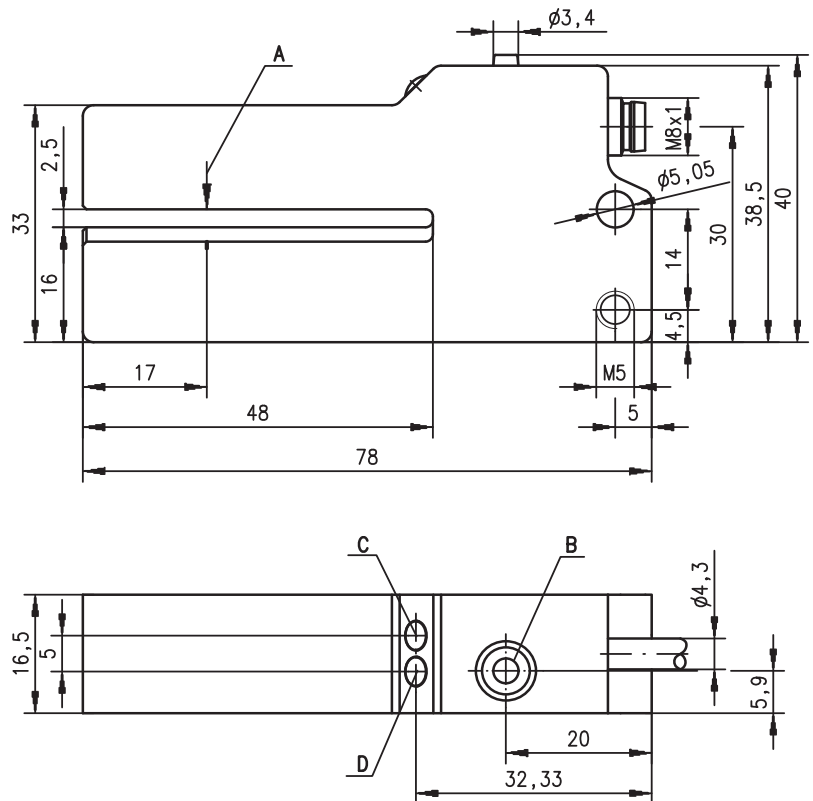
en 07-2011/01 50040961



2.5mm

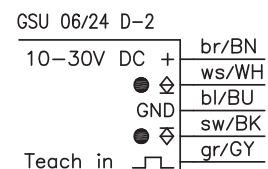
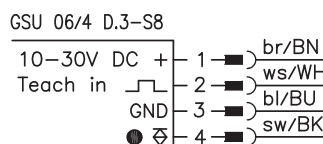
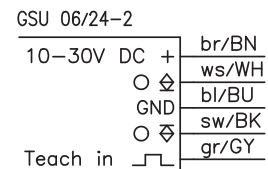
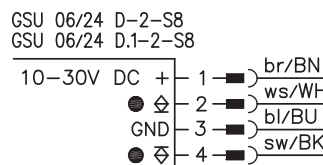
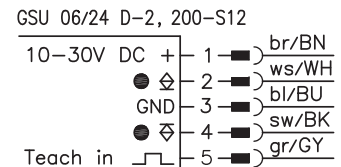
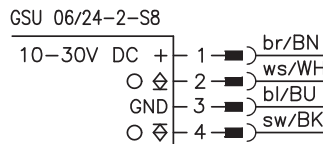
- Forked sensor for reliable detection of:
 - foil labels on foil carrier
 - foil labels on paper carrier
 - paper labels on paper carrier
 - metallic foil labels
 - thin metal foils
- Special variant for tape-tear monitoring
- Simple adjustment via teach-in by pressing a button or remote calibration ¹⁾
- 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 ¹⁾
- C** Teach-in indicator diode ¹⁾
- 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 ¹⁾ | ≥ 2mm |
| Label gap ¹⁾ | ≥ 2mm |
| Conveyor speed | ≤ 2m/s (120m/min) |
| Repeatability ^{1) 2)} | ± 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 ³⁾ | 1, 2 |
| VDE safety class | III |
| Protection class | IP 62 |
| Standards applied | IEC 60947-5-2 |

Options (cable version)

| | |
|--------------------------|-----------|
| Teach-in input | |
| 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

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

Designation **Part No.**

GSU 06/24-2-S8 50039638

GSU 06/24-2 50040191

Dark switching

(signal on the label)

With M8 connector,
teach-in by pressing a button

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

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

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

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

GSU 06/24D-2-S8 50040190

GSU 06/4D.3-S8 50102921

GSU 06/24D-2 50040192

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

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

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

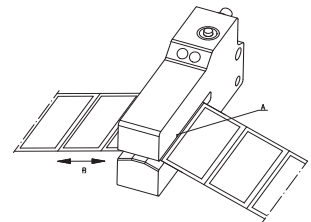
Calibration ¹⁾

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.