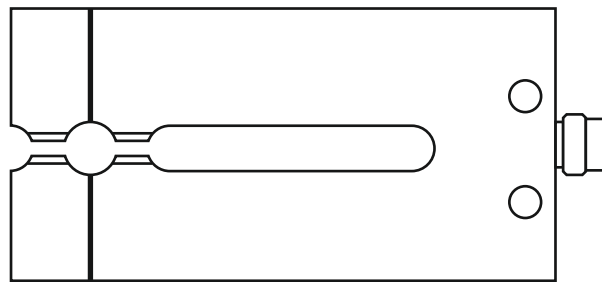


# Fork type housing ultrasonic sensor for labels 10 .. 30Vdc

## UDST187I45C8L



## Technical descriptions, Installation instructions

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## Technical data

**Supply voltage:** 10-30 Vdc;

**Current consumption, no-load:** < 0.1 A

**Duration of the initial establishment:** < 0.1 s.

**Output:** transistor/**PNP/NPN** – depending on the scheme of connections/ optically isolated, with overload and reverse connection protection;

/function **NO/NC** is determined by the scheme of connections./

**Maximum applied voltage of the output:** +30 Vdc;

**Maximum residual voltage:** < 1,5 V;

**Maximum output current:** 0,1 A;

**Maximum switching frequency:** 500 Hz;

**Minimum label width:** 10 mm;

**Minimum distance between labels:** 2.5 mm;

**Maximum speed of the tape:** 200m/min.;

**Depth of the slit:** 56 mm;

**Slit width:** 2 mm;

**Center of the sensitive area:** it is 10,5 mm of the beginning of the body;

**Indication:** LED:

- “**T**” /teach/ - yellow LED – mode “teaching”, functional;
- “**S**” /status/ - red LED – overloaded output, functional;
- “**O**” /output/ - green LED – active output, functional;
- bargraph – level of the signal;

**Buttons:** for sensor setup;

**Electrical connection:** connector M8 – 4 pin;  
/cable upon request/

**Mechanical connection:** 2 holes; F4.2;

**Dimensions:** 36x72x12 mm;

**Material:** Aluminum, polyester;

**Operating temperature:** 5 .. + 50 C

**Degree of protection:** IP40;

**Storage conditions:**

- temperature - -20 .. +80 C
- humidity- 0 .. 85% RH

## Description and settings

### Description

The device is an ultrasonic sensor for labels. Technology allows detection of a wide range of labels: low-contrast, transparent, metallic, hot stamp and other.

Electrical connection allows a choice of the type: **(PNP or NPN)** and choice of the function on the output **(NO/NC)**. Active state of the output is indicated by LED **"O"**, but in case of overloading; it is indicated by LED **"S"**.

The presence of the bargraph for the signal strength and functional button facilitate the setting.

### Automatic settings

When teaching the sensor with a new label, the power must be turned off first.

During setup, the sensor and the label tape **must** be in rest!

1. The tape label is positioned in gap between labels (figure 1), in line with the markers on the front panel.

2. Press the button and hold "TEACH" for more than 3 seconds. LED **"T"** go on in yellow. This means that the sensor is in standby setting. When the button release, LED blinks and begins teaching the sensor automatically. Signal level, indicated of the bargraph **"L"** is growing. Wait until LED **"T"** go off.

3. The tape is positioned on a label (figure 2).

4. Press the button "TEACH". LED **"T"** go on.

When the button release, LED is blinking.

Automatic setup is completed when the LED **"T"** lights off.

In the inadequate level of signal of the gap (after step 2) or insufficient contrast between the gap-label signal (after step 4), bargraph flashes and indicates error.

The outcome of this situation is possible with a new (correct) training, or with turning the electricity off.

You should repeat the process and if it is necessary to repeat the process for third /last/ time - with each subsequent teaching the sensor automatically changes its initial parameters.

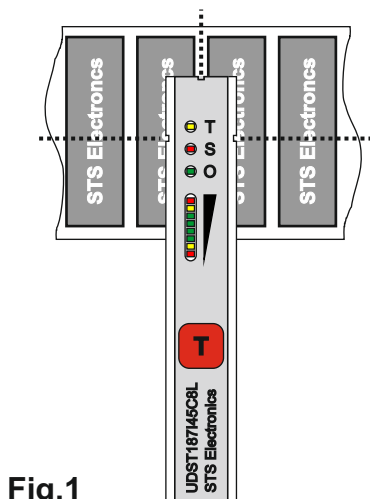


Fig.1

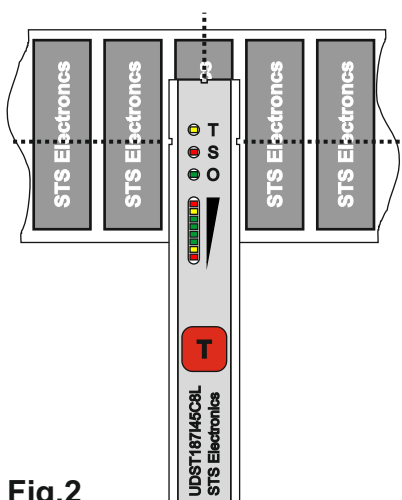
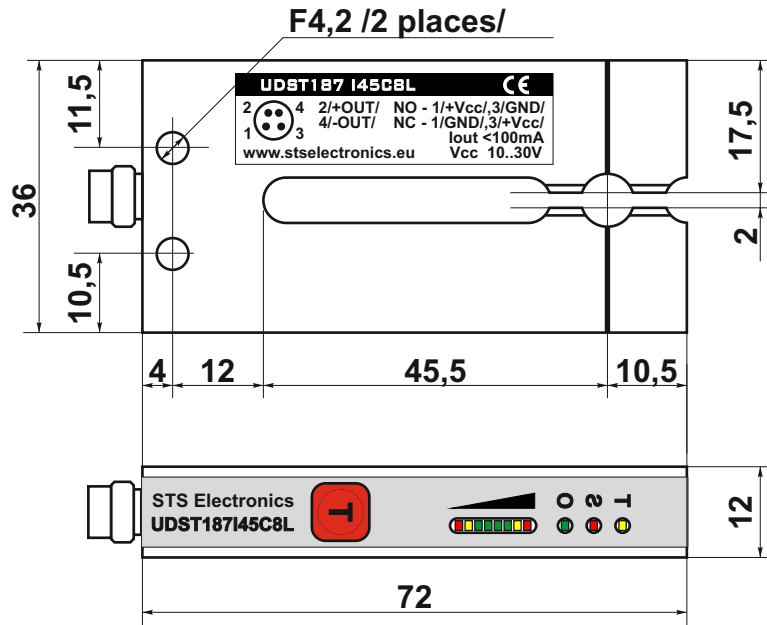


Fig.2

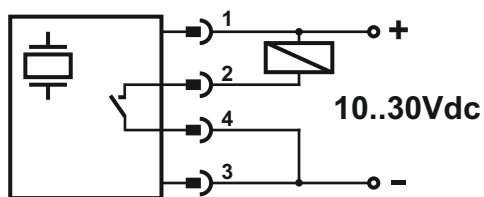
## Dimensions



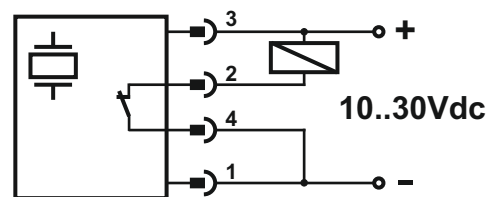
## Electrical connection options



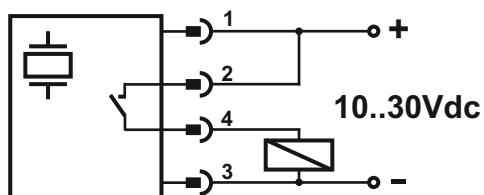
NPN/NO



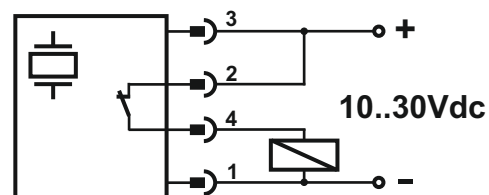
NPN/NC



PNP/NO



PNP/NC



## GENERAL TERMS OF EXPLOITATION

The sensors are designed to work in normal weather conditions in environment with normal fire safety without any liquids and gases that can be dangerous for the housing and the cable's material.

## WARRANTY CONDITIONS:

Warranty term - 12 months after the date of sale, but not more than 18 months after the date of production, noted in the relevant document for sale.

The manufacturer is not responsible in the following cases:

- Non-compliance with the storage conditions
- Non-compliance with the transport conditions
- Non-compliance with the exploitation conditions
- Nature disasters

The warranty is valid if there is no breach in the mechanical entirety of the product and no attempt has been made for repairing the damage from unauthorized person. Transport costs shall be charged by the client.

**Note!** No using organic solvents for cleaning the front panel.

**FACTORY NUMBER:** \_\_\_\_\_