Detailed technical data

Features

	UFnext – Plus/minus buttons
Dimensions (W x H x D)	18 mm x 47.5 mm x 92.5 mm
Functional principle	Ultrasonic detection principle
Housing design (light emission)	Fork shaped
Fork width	3 mm
Fork depth	69 mm
Minimum detectable object (MDO)	Gap between labels: 2mm Size of labels: 2mm
Label detection	1
Adjustment	Plus/minus buttons Cable (depending on type)
Teach-in mode	2-point teach-in Dynamic Teach-in
Output function	Light/darkswitching, selectable via button

Mechanics/electronics

	Plus/minus buttons
Supply voltage [1]	10 V DC ... 30V DC
Ripple [2]	< 10 %
Power consumption [3]	40 mA
Switching frequency [4]	1.5 kHz
Response time [5]	250 μs
Output type	PNP NPN (depending on type)
Switching output (voltage)	PNP: HIGH = V_S - ≤ 2V / LOW approx. 0V NPN: HIGH = approx.V_S / LOW ≤ 2V (depending on type)
Switching output	Light/dark switching
Output current $I_{max.}$ [6]	100 mA
Input, teach-in (ET)	Teach: U > 7V... ≤ U Run: U < 2V
Initialization time	100 ms
Connection type	Connector M8, 4-pin
Protection class [7]	III
Circuit protection	Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP65
Weight	95 g
Housing material	Aluminum

[1] Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8A.

[2] May not exceed or fall below U_v tolerances.

[3] Without load.

[4] With light/dark ratio 1:1, typical, depending on material and speed.

[5] Signal transit time with resistive load.

[6] Output current minimal 0.03 mA.

[7] Reference voltage DC 50V.

Ambient data

	Plus/minus buttons
Ambient operating temperature [1]	+5° C... +55° C
Ambient storage temperature	-20° C... +70° C
Shock load	According to EN 60068-2-27
EMC [2]	EN 60947-5-2

[1] Do not bend below 0° C.

[2] The UFN complies with the Radio Safety Requirements (EMC) for the industrial sector (Radio Safety Class A).
It may cause radio interference if used in residential areas.
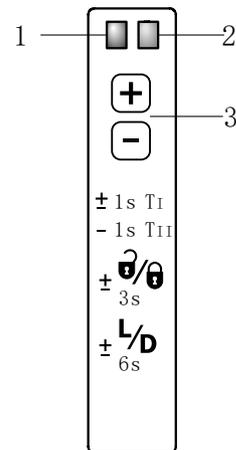
Dimensional drawings (Dimensions in mm (inch))

Plus/minus buttons
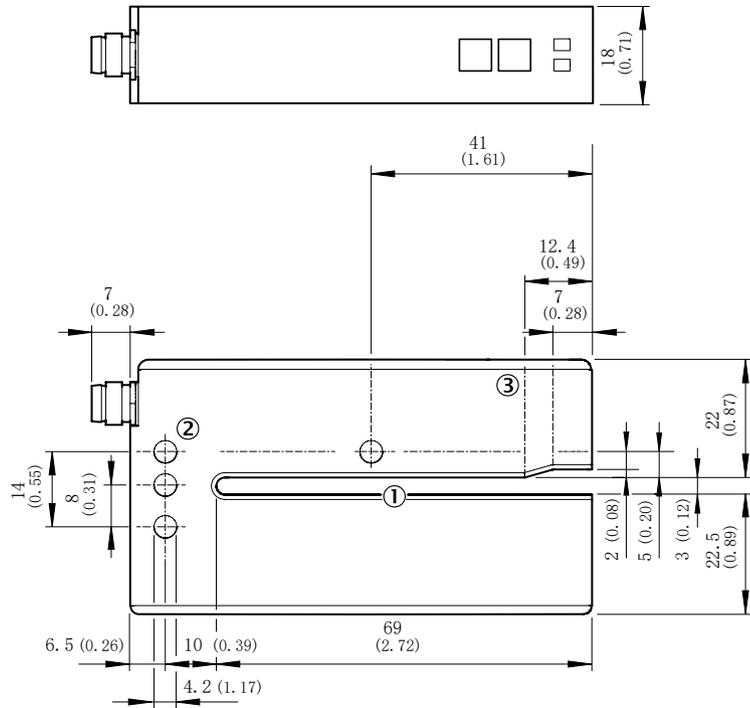
1 Fork opening: fork width 3mm, forks depth 69mm
2 Mounting hole, Ø 4.2 mm
3 Detection axis

Adjustments
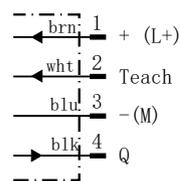
UFnext, Plus/minus buttons

1 ——— +1s T$_I$
  ——— -1s T$_{II}$

1 Function signal indicator (yellow), switching output
2 Function indicator (red)
3 Plus/minus buttons and function button

Connection diagram

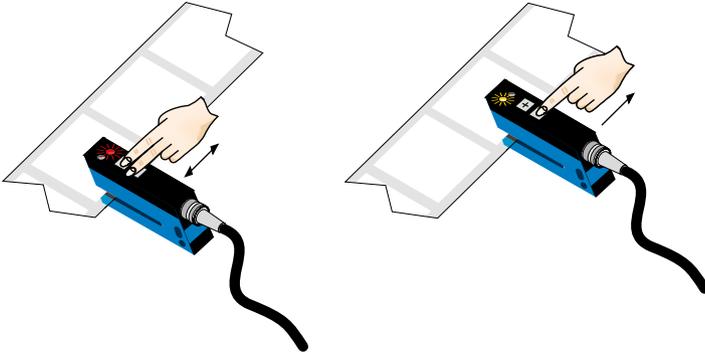|		
brn	1	+ (L+)
wht	2	Teach
blu	3	- (M)
blk	4	Q

Setting the switching threshold

Teach-in dynamic via plus/minus buttons

1. Position label or substrate in the active area of the fork sensor

2. Move multiple labels through the fork sensor

Press both the "+" and "−" buttons together, hold > 1 s and than release the teach-in buttons. The red LED flashes.

Press "−" button, teach-in process is finished.

Notes

Switching threshold adaptation
Only, the first teach-in procedure after switching on is permanently stored. Teach-in can be repeated cyclically. Switching output also during teach-in active

| + |
| − |

Once teach-in process is complete, the switching threshold can be adjusted at any time using the "+" or "−" button. To make minor adjustments, press the "+" or "−" button once. To configure settings quickly, keep the "+" or "−" button pressed for longer

± 🔓/🔒 3s Press both the "+" and "−" buttons together (3 seconds) to lock the device and prevent unintentional actuation

± L/D 6s Press both the "+" and "−" buttons together (6 seconds) to define the switching function (light/dark switching). Standard setting: Q = light switching.

Teach-in (static): Setting the switching threshold without movements of label, cf. operating instruction.