

Ultrasonic Edge Sensor

US 2010

Application:

The US 2010 ultrasonic edge sensor is solely used in conjunction with BST controllers especially for scanning the web edges of sound-impermeable materials such as paper or foil. The material should be placed in the middle between ultrasonic transmitter and ultrasonic receiver for optimum results.

Functions:

The sensor supports two operating modes, analog and digital. The operating mode is selected automatically according to the connection at the BST controller. The current web position in the sensor is output according to this:

- as 0-10V output signal when operated in analog mode.
- via the integrated BST CAN bus when operated in digital mode.

Safety notes:

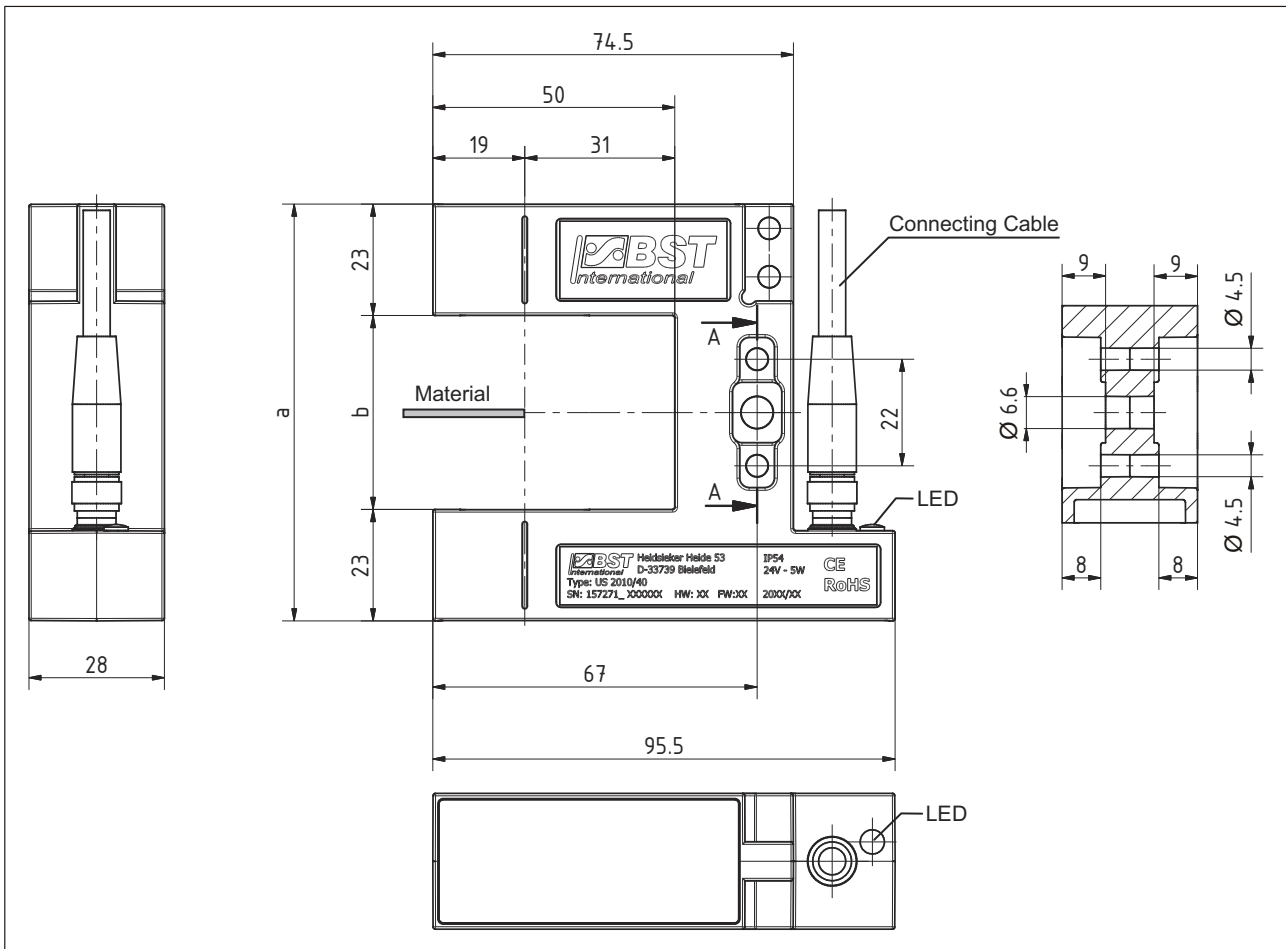
- Read the operating instructions prior to start-up.
- Connection, installation and adjustment works may only be carried out by expert personnel.
- No safety component in accordance with the EU Machine Directive.

Technical Specifications:

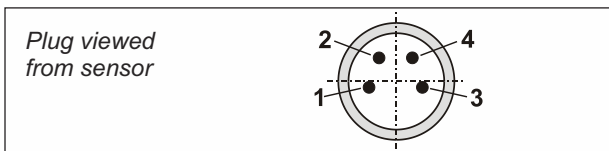
Fork width:	mm	40	70
Measuring range:	mm	12	12
Supply voltage:	V DC	12 ... 30 (incl. residual ripple)	
Power consumption	mA	40 (24 V DC)	
Ultrasonic frequency:	kHz	164	
Output signal (analog operating mode):	V	0 ...10 (± 2,5 %)	
Output signal (digital operating mode):		BST CAN Bus	
Polarity reversal protection (supply):		yes	
Short circuit protection (analog output):		yes	
Operation display:		LED (2 colors)	
Electrical Connection:		M8 plug, 4-pin	
Ambient temperature during operation:	°C	0 to +60	
Storage temperature:	°C	-10 to +70	
Protection class:		IP54	
Noise emission:	dB	<70	
Weight:	g	<400	<500
RoHS conformity:		yes	



Dimensions:



Sensor	US 2010/40	US 2010/70
Size		
a	86	116
b	40	70



Electrical Connection:

Pin	Cable Color	Analog Mode
1	Brown	+12 - 30 VDC (supply)
2	White	Analog signal 0 - 10 V
3	Blue	0 V (supply)
4	Black	0 V (unless otherwise noted, interconnect with Pin 3)

Pin	Cable Color	Digital Mode
1	Brown	+12 - 30 VDC (supply)
2	White	CAN-H
3	Green	0 V (supply)
4	Yellow	CAN-L

Order Data:

Sensor	BST Part Number
US 2010/40	157271
US 2010/70	157272

Connecting Cable	BST Part Number	
	Analog Mode	Digital Mode
Length: 10m	128967	131995
Length: 5m	133457	131994
Length: 3m	133456	---
Length: 2m	---	131993