

Technical Data Sheet

Stationary Sensor Box

S-SB10.xx

For Online Monitoring of Processes and Machines



With the 'Stationary Sensor Box S-SB10.xx' and its associated probes machine and plant processes can be monitored permanently, insofar as a detectable ultrasonic level is generated.

- Broadband signal detection from 150 Hz to 100 kHz
- Automatic or manual input gain, bandpass filter, alarm thresholds, averaging

A fixed installation at an inspection point enables trend monitoring for longer periods. Based on changes of the ultrasonic sound level the assessment of plant condition is possible.

Different probe versions support airborne sound and structure-borne sound applications.

In the described version, a current output and a RS485 interface are available.

General Data

Parameter	Specification
Device type	Sensor box for the conversion of ultrasonic levels into current signals
Frequency range	150 Hz ... 100 kHz
Dynamic range	0 ... 128 dB μ V
Materials	Housing ('Alurail'): anodized aluminum, light gray Side plates: polyamide, light gray
Mounting	On a DIN EN 60715 TH 35 mounting rail, fixation with clamp if needed
Maintenance	Maintenance-free
Directives and standards	<ul style="list-style-type: none"> • EMC Directive 2014/30/EU • RoHS Directive 2011/65/EU, exception: III 7cl/ IV 15; RoHS 2015/863 • DIN EN IEC 61326-1:2022-11

Conditions of use

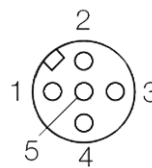
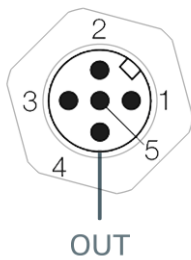
Parameter	Specifications
Ambient temperature	-10 °C ... +40 °C
Storage temperature	-20 °C ... +60 °C
Degree of protection	IP40

Interfaces

Parameter	Specifications
Current output for sound level	0 (4) ... 20 mA Resolution: 12 bit 4096 states configurable
RS-485 interface	For the configuration via S-SB software SONOTEC protocol or Modbus® protocol

Electrical specifications and connections





Parameter	Specifications																														
Operating voltage	12 ... 30 VDC																														
Basic consumption	0.4 W (at 15 V, without current signal)																														
Connections	5-pin M12 connector Input / Connector for probes: BNC																														
5-pin connector	<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> <th>Socket on cable</th> <th>Pole</th> <th>Cable color</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Operating voltage</td> <td></td> <td>1</td> <td>Brown</td> </tr> <tr> <td>2</td> <td>Current output</td> <td></td> <td>2</td> <td>White</td> </tr> <tr> <td>3</td> <td>Ground (Signal)</td> <td></td> <td>3</td> <td>Blue</td> </tr> <tr> <td>4</td> <td>RS-485 B</td> <td></td> <td>4</td> <td>Black</td> </tr> <tr> <td>5</td> <td>RS-485 A</td> <td></td> <td>5</td> <td>Gray</td> </tr> </tbody> </table>	Pin	Assignment	Socket on cable	Pole	Cable color	1	Operating voltage		1	Brown	2	Current output		2	White	3	Ground (Signal)		3	Blue	4	RS-485 B		4	Black	5	RS-485 A		5	Gray
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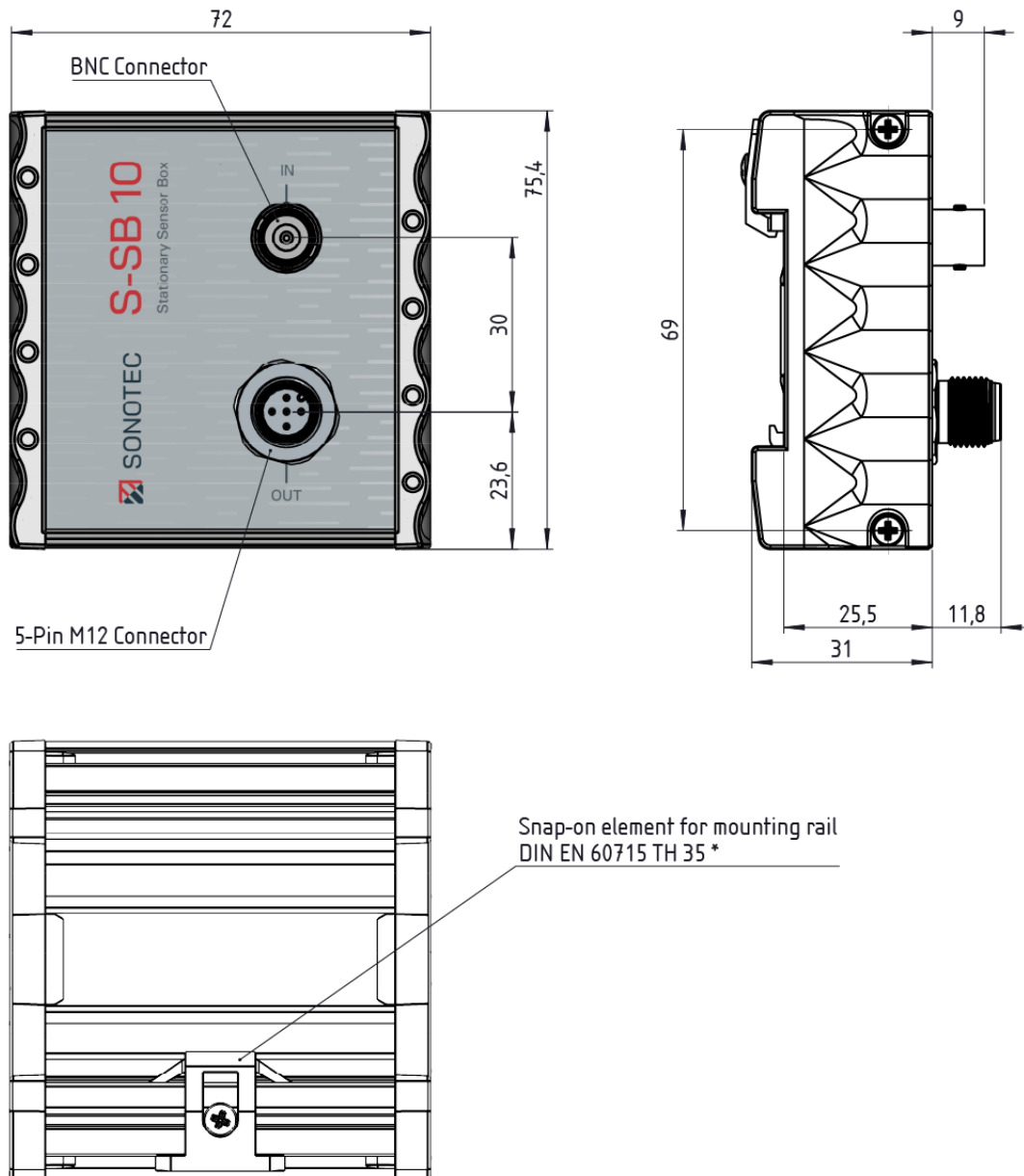
Scope of supply and accessories

Parameter	Specification	Product No.
Scope of supply	<ul style="list-style-type: none"> Sensor box S-SB10.02 User documentation 	200 01 0329
Optional accessories	Sensor cable, shielded: 2 m	400 01 0061
	5-pole connector, M12 — open ends, PVC gray 5 m	400 01 0060
	10 m	400 01 0170
	S-SB10 software adjusting parameters (e.g. filter, output via current output, alarm limits) and for displaying level curves	600 01 0090
	Portable USB Data Converter type 025 for the connection to a computer	200 01 0344

Probes (optional)

Probe	Connection	Product No.
Airborne sound probe L50 	Mini XLR	100 01 0336
	Adapter cable to BNC	800 01 0089
Structure-borne sound probe L52 	Mini XLR	100 01 0378
	Adapter cable to BNC	800 01 0089
Structure-borne sound probe T10 	10-32 UNF	100 01 0378
	Sensor cable to BNC	800 01 0068
Structure-borne sound probe T20 	10-32 UNF	100 01 0391
	Sensor cable to BNC	800 01 0068

Dimensions and technical drawings



(* Example of possible fixation, not part of the scope of supply)

Drawings are not to scale. Dimensions in mm, unless otherwise specified. Information is subject to change without notice. SONOTEC is a registered trademark.

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