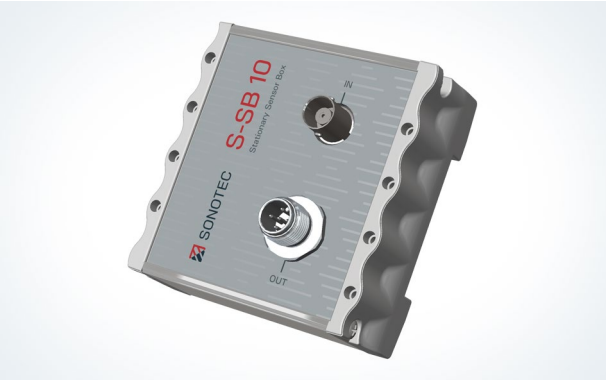
Technical Data Sheet

Stationary Sensor Box

S-SB10

For Online Monitoring of Processes and Machines



With the ‘Stationary Sensor Box S-SB10’ 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
Refresh rate	1 KHz
Weight	130 g
Dynamic range	0 ... 128 dBµV
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
Maintenance	Maintenance-free
Directives and standards	• EMC Directive 2014/30/EU • RoHS Directive 2011/65/EU • DIN EN IEC 61326-1:2022-11

Conditions of use

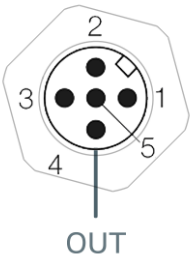
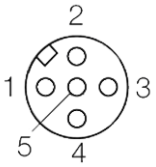
Parameter	Specifications
Ambient temperature	-10 °C ... +40 °C
Storage temperature	-20 °C ... +60 °C
Lifetime	≈ 10 years
Degree of protection	IP40

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	Output (OUT): 5-pin M12 connector | Input (IN): BNC for probes

5-pin connector	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

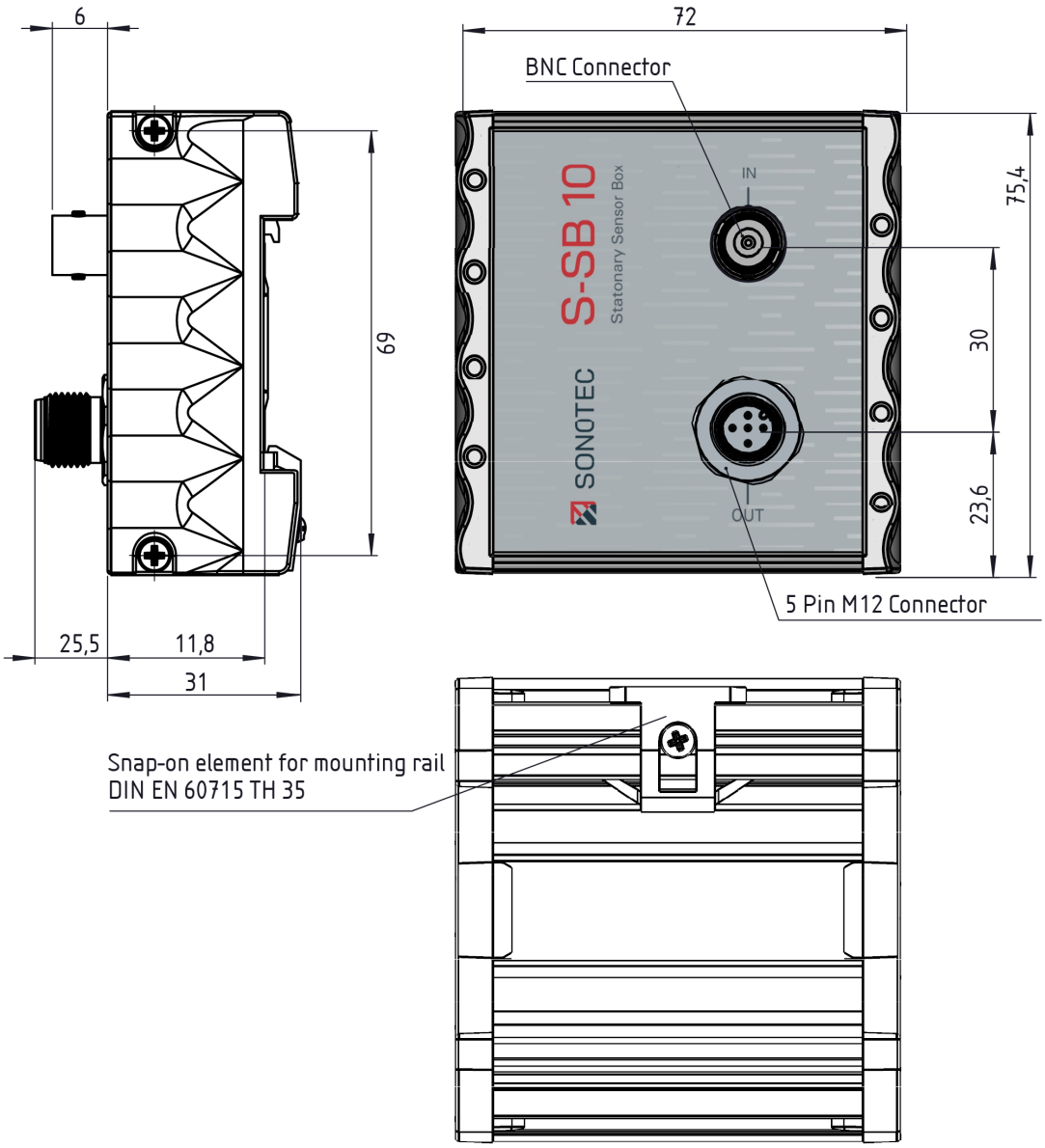
Scope of supply and accessories

Parameter	Specification		Product No.
Scope of supply	• Stationary Sensor Box S-SB10 • User documentation		200 01 0329
Optional accessories	Sensor cable, shielded: 5-pole connector, M12 — open ends, PVC gray	2 m	400 01 0061
		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 | Operating System: Microsoft Windows		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 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



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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