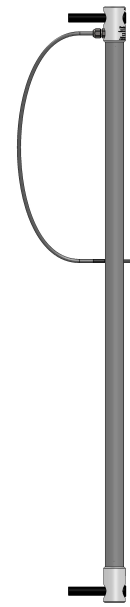


SND

Snow drift sensor



The SND sensor is an ultra-robust instrument for measuring solid particle flux intensities and wind speeds. It is a low-power, maintenance-free and totally sealed acoustic instrument with no moving parts. The sensing part of the instrument is a cylindrical, anti-abrasion, anti-adhesion and anti-rime coated tube supported by two strong stainless steel arms. The impact of drifting snow and the friction of laminar wind induce a change in internal acoustic pressure. The excitation by snow and wind is discriminated by a specific acoustic, mechanical and electronic design.

Versions

Art	Version
	Snow drift sensor with mounting kit and 3m signal cable

Scope of delivery

Ref.	Description	Quantity
SND	Snow drift sensor	1
	Mounting arms including brackets	2
UDONG	USB dongle	1

Accessories

Art	Accessory
21423	Signal converter 0-10 VDC to 4-20 mA
21431	RS-232-ModbusRTU adapter
21521	Extension cable in custom length per meter, min. 10 m
21520	Junction box for cable extension

Specifications

Voltage ranges and measurement scales

Voltage outputs	Continuous analog voltage or pulse analog voltage, user selectable +0 to +2.5V or +0 to +5V are available. Pulse threshold, integrator timeout and duration are also user selectable. The continuous analog voltage persists on the outputs so that output voltages can be read at any time.
Wind speed scaling	Sensitivity @voltage range +2.5V: [10 mV/(km/h)] i.e. +2.5V corresponds to 250 km/h Sensitivity @voltage range +5V: [20 mV/(km/h)] i.e. +5V corresponds to 250 km/h
Particles flux scaling	Sensitivity @voltage range +2.5V: [10 mV/(g/m ² /s)] i.e. +2.5V corresponds to 250 g/m ² /s Sensitivity @voltage range +5V: [20 mV/(g/m ² /s)] i.e. +5V corresponds to 250 g/m ² /s

Power supply

Supply	Ratings
Voltage	6 V to 30 V DC (9.6 V and 16 V DC in case of powering through the SDI-12 terminals)
Current	< 1 mA in stand-by mode and 20 mA max in acquisition mode. For a typical nominal duty-cycle of 10%: 2.1 mA (20 mA for duty-cycle of 100%).

Interfaces

Mode	Description
Analog	Pulse and continuous (and persistent) voltages, 0-2.5V or 0-5V
SDI-12	Yes
RS-232 TTL	Yes
Modbus RTU (RS485)	Yes (Note: requires the Modbus adapter accessory)

Physical properties

Material	Stainless steel and aluminium Ematal anodized (breakdown voltage > 40 V/μm)
Weight	5 kg (including mounting kit)
Dimension (H x W x D)	1040 mm x 874 mm x 32 mm (with mounting kit)
Installation	Universal mounting kit provided

Environmental conditions

Temperature range	-40°C to +80°C
Relative humidity	0 to 100%
Protection	IP67
Standards	EN 61326-1: 2013, CE compliant 2014/30/EU, CE compliant