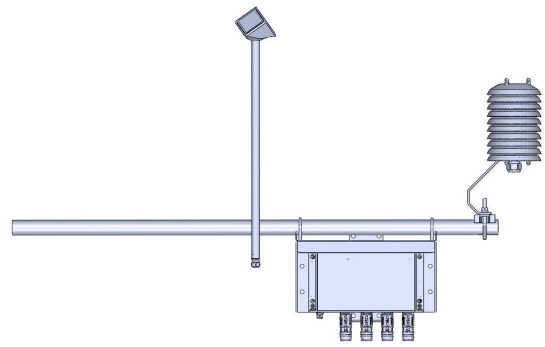


# IDS-20s

## Icing measurement system



During the winter season a lot of our infrastructure is affected by icing. In the transportation sector icing may not only impair the proper functioning of engines, sensors and signaling systems but may also pose serious hazards through icy runways and ice accretion on airplanes. Power generation by wind turbines solar- and hydroelectric generators may not be reliable under icy conditions and power transmission may be interrupted by heavy ice loads on power lines. Last but not least, ice on a building or other structure, e.g. antenna, may add a lot of weight and increase the surface area exposed to wind.

A unique and valuable feature of the IDS-20s is that it additionally considers meteorological data for the purpose of a plausibility check: Parallel to the ice-sensor the IDS-20s measures the air temperature and humidity and thereof calculates the dew and frost points. The sensor system then uses these data for a plausibility check together of the measured ice values. Thus, the reliability of ice-detection is improved.

## Versions

Art	Version
20845	IDS-20s Bundle for ice layers 0.1 mm to 5 mm (single sensor); monitoring of icing
20846	IDS-20s Bundle for ice layers 1 mm to 80 mm (single sensor); monitoring of total ice thickness
20848	IDS-20a Bundle for ice layers 0.1 mm to 1 mm (single sensor); continuous icing-monitoring in aviation
20847	IDS-20d Bundle for ice layers 0.1 mm to 80 mm (single sensor); monitoring of icing and total ice thickness

## Scope of delivery

Name
IDS-20s controller
Cube 5 ice sensor (optionally Rod T 80 sensor)
Temperature and relative humidity probe
Radiation shield
Mounting pole $\varnothing$ 34 x 800 mm
Mounting brackets for controller, sensors and radiation shield
MAIN sensor cable
USB to RS485 isolated converter cable
Manual and Commander Software on USB stick

## Accessories

Art	Accessory
20557	Heating transformer 230/24V, 160VA, IP00
20519	IDS-20 Main-cable 10 m
21150	USB to RS485 isolated converter cable

## Specifications

IDS-sensors			
Sensor type	Cube sensor 5	Cube sensor 1	Rod sensor 80
Measuring range ice thickness	0.1...5 mm	0.01...1 mm	1...80 mm
Weight	0.7 kg	0.7 kg	2.3 kg
Length	560 mm	560 mm	580 mm

T/rH-sensor	
Dew point	-20...+20 °C
Frost point	-20...+20 °C
Air temperature	-40...+60 °C
Air humidity	0...100 %
Weight	0.715 kg
Size L x W x H	310 x 120 x 165

IDS-controller	
Power supply	Sensors 10...28 VDC Heating 24 VAC/DC integrated overvoltage protection
Power consumption	Active measurement 50 mA at 12 VDC Heating max. 7A at 24 VAC/DC
Output	RS-485 (Modbus) SDI-12 3x relay output, max. 0.8 A each
Operating temperature	-40...60 °C
Protection rating	IP 66
Lightning protection	Integrated Lightning Protection against indirect Lightning; discharge capacity 0,6 kW Ppp
Size L x W x H	318 x 208 x 132 mm
Weight	3.6 kg

