






Ultrasonic anemometers



- ▶ Wide range of signal outputs 4...20 mA, RS232/485 Modbus
- ▶ No moving parts
- ▶ Very-High speed wind measurement (0...85 m/s) using DNB105.2 model
- ▶ Fast response time and low measurement threshold
- ▶ Low cost compact versions option (DNB205-205.2)
- ▶ 3-Axis ultrasonic models (DNB146-146.3)
- ▶ In-house ISO17025 calibration laboratory

Ideal sensors for general meteorological applications requiring no moving parts for low-maintenance or measurements with fast response even in very low-range wind speed conditions. Model DNB205 (serial output) is a compact size sensor very suitable in lite weather stations. DNB305-305.1 (serial output) are made in Aluminium and have very good performances. DNB306-306.1 models have 4...20 mA outputs. DNB105.2 model is made for high speed range up to 85 m/s, it comes with 4...20 mA and RS485-RS232output. DNB146-146.3 are 3-axis models and measure 3 components of wind speed.

Technical Specifications

PN	DNB205 DNB205 .2	DNB205 .1	DNB305 DNB305 .2	DNB305 .1	DNB306	DNB306 .1	DNB105 .2	DNB146	DNB146 .3			
												
Output	DNB205-205.1-305-305.1: RS485 DNB205.2-305.2: RS232				2x4...20 mA		2x4...20 mA 2xRS485-RS232	RS485 5x4...20 mA				
Type	Sonic 2-Axis (U-V)							Sonic 3-Axis				
Measurements	Wind Speed and Wind Direction							<ul style="list-style-type: none"> • Wind S&D • Sound speed • Sonic temperature 				
Compass	NO		NO		NO		YES		YES			
Material	Luran		Aluminium		Aluminium		Aluminium		Luran Aluminium			
Heater	NO	YES	NO	YES	NO	YES	NO		NO	YES		
Protocol	Modbus-RTU		Modbus-RTU		-		Modbus-RTU		Modbus-RTU			
Power supply (sensor)	12...30 V DC											
Power supply (heater)	-	24V DC @10A	-	24V DC @10A	-	24V DC @10A	-	-	-	12...30 V DC*		
Consumption @12V DC)	11 mA		11 mA		25 mA		12 mA		25 mA		110 mA @15V DC	400 mA @15V DC

* For increased efficiency of the heater supplied at 30 V DC

PN	DNB205 DNB205.1 DNB205.2	DNB305 DNB305.1 DNB305.2	DNB306 DNB306.1	DNB105.2	DNB146 DNB146.3
Dimensions	110x126 mm	180x160 mm	180x160 mm	179x150 mm	537x214 mm
Weight	0,5 kg	1 kg	1 kg	640 gr	1,5 kg
Mounting	On Ø 35...50 mm pole (support include)			On pole Ø 40 mm. On pole Ø 50 mm (using DNB191 adapter non- inclu- ded)	On pole Ø 33 mm On pole Ø 50 mm (using DNB192 adapter non- inclu- ded)
Cable	Not included DWA8xx			Not included DWA8xx.1	Included 10 m
Operative Temperature	-40...60 °C (in the event of ice formation, snow/snowfall use the heated versions)				
Protection	IP66				
Connector	10-pins (MG2267)			12-pins (MG2272)	
Data logger compatibility	Versions with RS232, 4...20 mA outputs: E-Log, Alpha-Log with ALIEM module Versions with RS485 output: Alpha-Log				

Technical Specifications

PN		DNB205 DNB205.1 DNB205.2	DNB305 DNB305.2 DNB305.1 DNB306 DNB306.1	DNB105.2	DNB146 DNB146.3
Wind speed	Range	0...60 m/s	0...60 m/s	0...85 m/s	0...70 m/s
	Accuracy	± 0.3 m/s or 5% (0.02...35 m/s) 10% (>35 m/s)	± 0.2 m/s or 3% (0.02...35 m/s) 5% (>35 m/s)	± 0.2 m/s or 2% (0.01...60 m/s) 3% (>60 m/s)	± 1%
	Threshold	0.1 m/s	0.1 m/s	0.01 m/s	0.2 m/s
	Resolution	0.1 m/s	0.1 m/s	0.01 m/s	0.01 m/s
	Response time	250 ms			20 ms
Wind direction	Range	0...360°	0...360°	0...360°	0...360°
	Accuracy	±3° (>1 m/s)	±2° (>1 m/s)	±2° (>1 m/s)	±1° (>1 m/s)
	Threshold	-	-	0.1 m/s	0.2 m/s
	Resolution	1°	0.1°	1°	0.1°
	WS threshold for WD calculation	0.2 m/s	0.2 m/s	Programmable 0.01...1.00 m/s (default: 0.02 m/s)	Programmable 0.01...1.00 m/s (default: 0.02 m/s)
	Response time	250 ms			20 ms
Compass	Principle	-	-	Magnetic	Magnetic
	Range	-	-	0...360°	0...360°
	Resolution	-	-	0.1°	0.1°
	Accuracy	-	-	±1°	±1°

Accessories

DWA054	Cable L=5 m for DNB205-205.2-305-305.2
DWA104	Cable L=10 m for DNB205-205.2-305-305.2
DWA254	Cable L=25 m for DNB205-205.2-305-305.2
DWA056	Cable L=5 m for DNB205.1-305.1
DWA106	Cable L=10 m for DNB205.1-305.1
DWA256	Cable L=25 m for DNB205.1-305.1
DWA058	Cable L=5 m for DNB306-306.1
DWA108	Cable L=10 m for DNB306-306.1
DWA258	Cable L=25 m for DNB306-306.1
DWA810.1	Cable L=10 m for DNB105.2 anemometer
DWA825.1	Cable L=25 m for DNB105.2 anemometer
DWA826.1	Cable L=50 m for DNB105.2 anemometer
DEA602	RS232 DB-9 male connector for connecting DNB2XX-DNB3XX cables to RS232 female port
MG2272.R	Watertight connector for making DNB105.2 sensor cable
MG2267.R	Watertight connector for making DNB2XX-DNB3XX sensors cable
DNB191	Adapter for DNB105.2 sensor to pole Ø 50 mm
DNB192	Adapter for DNB146 sensor to pole Ø 50 mm
SVICA2203	ISO9001 type calibration certificate (Wind Speed)
SVICA2304	ISO9001 type calibration certificate (Wind Direction)
SVACA2216	ISO17025-ACCREDIA type calibration certificate (Wind Speed)



🔴 LSI LASTEM is an ISO17025 accredited laboratory for air speed measurements. All sensors manufactured are tested inside this laboratory. LSI LASTEM provides Test report for any sensor supplied and on request, ISO17025 or ISO9001 calibration certificates (see Accessories list).

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