






### 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 model (DNB146)
- ▶ 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 Aluminum 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 is a 3-axis model and measures 3 components of wind speed.

#### Technical Specifications

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

PN	<b>DNB205 DNB205.2</b>	<b>DNB305 DNB305.2</b>	<b>DNB305.1</b>	<b>DNB306</b>	<b>DNB306.1</b>	<b>DNB105.2</b>	<b>DNB146</b>
<b>Dimensions</b>	110x126 mm	180x160 mm	180x160 mm	180x160 mm	180x160 mm	179x150 mm	537x214 mm
<b>Weight</b>	0,5 Kg	1 Kg	1 Kg	1 Kg	1 Kg	640 gr	1,5 Kg
<b>Mounting</b>	On Ø 35...50 mm pole (support include)					On pole Ø 40 mm. On pole Ø 50 mm (using DNB191 adapter non- included)	On pole Ø 33 mm On pole Ø 50 mm (using DNB192 adapter non- included)
<b>Cable</b>	Not included DWA8xx					Not included DWA8xx.1	Included 10 m
<b>Operative Temperature</b>	-40...60°C						
<b>Protection</b>	IP66						
<b>Connector</b>	10-pins (MG2267)					12-pins (MG2272)	
<b>Data logger compatibility</b>	Versions with RS232, 4...20 mA outputs: M-Log (ELO008) E-Log, Alpha-Log with ALIEM module Versions with RS485 output: Alpha-Log						

### Technical Specifications

PN		<b>DNB205 DNB205.2</b>	<b>DNB305 DNB305.2 DNB305.1 DNB306 DNB306.1</b>	<b>DNB105.2</b>	<b>DNB146</b>
<b>Wind speed</b>	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	0.02 m/s	0.01 m/s	0.01 m/s	0.01 m/s
	Resolution	0.01 m/s	0.01 m/s	0.01 m/s	0.01 m/s
<b>Wind direction</b>	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	0.2 m/s	0.2 m/s	0.1 m/s	0.1 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)
<b>Compass</b>	Principle	-	-	Magnetic	Magnetic
	Range	-	-	0...360°	0...360°
	Resolution	-	-	0.1°	0.1°
	Accuracy	-	-	±1°	±1°

### Accessories

<b>DWA831</b>	Cable L=5 m for DNB205-205.2-305-305.1-305.2-306-306.1
<b>DWA832</b>	Cable L=10 m for DNB205-205.2-305-305.1-305.2-306-306.1
<b>DWA833</b>	Cable L=25 m for DNB205-205.2-305-305.1-305.2-306-306.1
<b>DWA834</b>	Cable L=50 m for DNB205-205.2-305-305.1-305.2-306-306.1
<b>DWA835</b>	Cable L=100 m for DNB205-205.2-305-305.1-305.2-306-306.1
<b>DWA810.1</b>	Cable L=10 m for DNB105.2 anemometer
<b>DWA825.1</b>	Cable L=25 m for DNB105.2 anemometer
<b>DEA608</b>	RS232 DB-9 male connector for connecting DWA8xx cable to RS232 female port
<b>MG2272.R</b>	Watertight connector for making DNB105.2 sensor cable
<b>MG2267.R</b>	Watertight connector for making DNB205-205.2-305-305.1-305.2-306-306.1 sensors cable
<b>DNB191</b>	Adapter for DNB105.2 sensor to pole Ø 50 mm
<b>DNB192</b>	Adapter for DNB146 sensor to pole Ø 50 mm
<b>SVICA2203</b>	ISO9001 type calibration certificate (Wind Speed)
<b>SVICA2304</b>	ISO9001 type calibration certificate (Wind Direction)
<b>SVACA2216</b>	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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