

## Compact anemometer





- ▶ Made in anodized aluminum body and Luran cups, for long time life to the heavy environmental conditions and strong winds.
- ▶ Without power consumption is an ideal solution in applications with very low energy availability.
- ▶ Frequency output (reed relay) for easy connection to LSI LASTEM's equipment and third-part systems.
- ▶ Supplied with 4-pins free connector for simple connection to cables (2-wires+ground).
- ▶ Internal ISO17025 accredited calibration laboratory.
- ▶ STB and MSB accessories to convert the frequency signal output in 4-20 mA or RS485 signals.

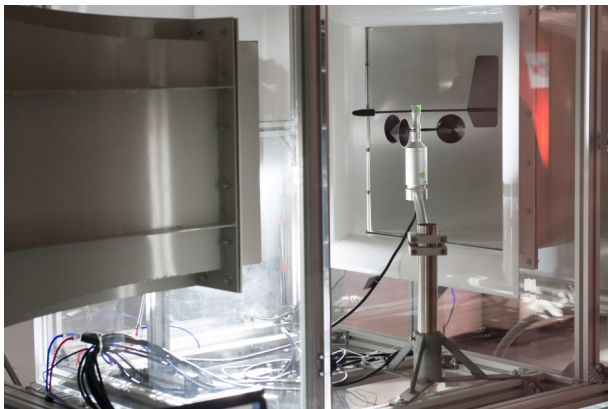
With compact size and high mechanical strength, these sensors are particularly suited for uses in strong wind applications, where long term reliability without maintenance is required, as in wind farms and wind turbine surveys. These sensors are compatible with many LSI-LASTEM data loggers, but they can be also easily integrated with third party systems, thanks to a high quality relay-reed-generated linear pulse output.

### Technical Specifications

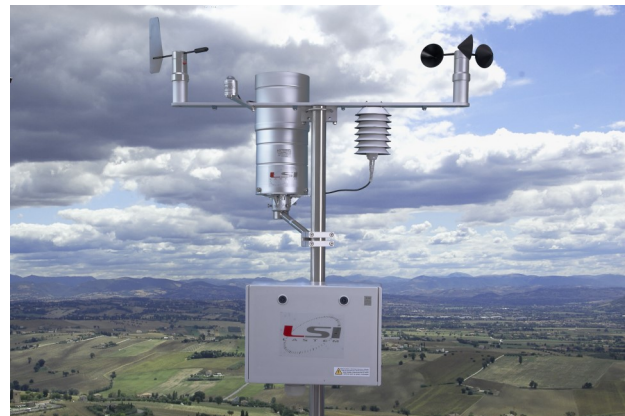
Order numb.	DNA202	
<b>Wind speed</b>	Principle	Relay Reed
	Measuring range	0÷75 m/s (damage limit)
	Accuracy	3% (calibration tested to 63 m/s)
	Threshold	0,5 m/s
<b>General Information</b>	Output	N.6 pulse / round 2,6÷2.8 Hz x m/s
	Max. load	12 Vdc @5 mA
	Connector	4 pin IP65 watertight connector (MG2257) included
	Housing	Anodized aluminum,
	Operative temperature	-35÷70°C (without ice)
	Protection degree	IP66
	Mounting	Mast Ø 48 ÷ 50 mm.
	Data logger compatibility	M-Log (ELO008) R-Log (ELR515) E-Log A-Log, using ALIEM module

## Accessories

	<b>MN1071</b>	4-wires + shield cable (sold in meters)
	<b>DYA046</b>	Coupling bar for WS+WD sensors on Ø 45 ÷65 mm. pole
	<b>DNA207</b>	Spare part: rotor
	<b>MM2001</b>	Spare part: Bearings
	<b>SVICA2203</b>	ISO9000 type calibration certificate (Wind Speed)
	<b>SVACA2216</b>	ISO17025-ACCREDIA type calibration certificate (Wind Speed)
	<b>DEA420</b>	STB - Signal transducer Box for DNA202 wind speed sensor. Output: 4÷20 mA Power supply 10÷30 Vac/dc
	<b>MDMMA1010.1</b>	MSB—Modbus Sensor Box Same features as DEA420, but:



► 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).



► DNA202 wind speed sensor can be mounted together with the DNA212 wind direction sensor using the DYA046 coupling bar. On the same coupling bar room for additional sensor as Temperature&RH% and Radiation sensors is available.

## Standard anemometer



- ▶ Accurated wind speed sensors with low threshold.
- ▶ Frequency output and analogue output versions availability
- ▶ Wide power supply: 10÷ 30 Vac/dc (analogue output versions)
- ▶ Up to 100 m cable lenghts availability
- ▶ Heated versions availability for operation even in presence of ice.
- ▶ Internal ISO17025 accredited calibration laboratory.

Wind speed sensor versions with frequency signal output (Hz/m/s) and versions with analogue signal outputs These anemometers are ideal for when requirements calls for low thresholds and good accuracy even at very low wind speed. The wind speed element is a tachometer with 32 steps ensuring very high resolution.

DNA302.1 is equipped with heater. DNA301.1, with its extreme-low power consumption, can be used in applications with very low energy availability.

Analogue signal output models are based on microprocessor technology: Every sensor has, on the basis of its particular geometry, different response on each point of his measuring range; the microprocessor adjusts the signal linearity at any wind speed value, obtaining a precise and stable output. DNA802 and DNA806 models are equipped with heaters.

### Technical Specifications

PN	DNA301.1	DNA302.1
<b>Measuring range (damage limit)</b>	0 ÷ 75 m/s	
<b>Output</b>	0-883 Hz. (13 Hz m/s )	
<b>Power supply</b>	10÷30 Vac/dc	24 Vac @ 20 W
<b>Heater</b>	-	YES(-20°C) switch-on temperature: 4°C
<b>Power consumption</b>	Max. 0,4 W	0,4 W + 20 W (heater)
<b>Data logger compatibility</b>	M-Log (ELO008) R-Log (ELR515) E-Log A-Log, using ALIEM module	

## Standard anemometer




### Technical Specifications

PN	DNA801 DNA801.1	DNA802	DNA805	DNA806	DNA807
<b>Output</b>	4÷20 mA	4÷20 mA	0÷20 mA	0÷20 mA	0÷5 Vdc
<b>Measuring range</b>	0÷50 m/s, DNA801.1 only: 0÷60 m/s				
<b>Power supply</b>	10÷30 Vac/dc	24 Vac	10÷30 Vac/dc	24 Vac	10÷30 Vac/dc
<b>Max. Load</b>	300 Ohm	300 Ohm	300 Ohm	300 Ohm	-
<b>Heater</b>	-	YES (-20°C)	-	YES (-20°C)	-
<b>Heater operative temperature</b>	-	>-20÷4°C	-	>-20÷4°C	-
<b>Power consumption</b>	0,5 W	20,4 W + 20 W (heater)	0,5 W	20,4 W + 20 W (heater)	0,5 W
<b>Compatibilità con data logger</b>	M-Log (ELO008) R-Log (ELR515) E-Log, A-Log				

### Common Technical Specifications

<b>Wind speed</b>	Principle	N.32 step optoelectronic disk
	Accurac	± 0,25 m/s or 3% (0÷25 m/s) 2% (>25 m/s)
	Threshold	0,26 m/s
	Resolution	0,06 m/s
	Delay distance	4,8 m (at 10 m/s). Acc to VDI3786 and ASTM 5096-96
<b>General Information</b>	Operative damage limit	75 m/s
	Connector	7 pin IP65 watertight connector
	Housing	Anodized aluminum
	EMC	EN 6132-1 2013
	Grado di protezione	IP66
	Operative temperature	-40÷70°C (without ice)
	Mounting	Mast Ø 48 ÷ 50 mm.

### Accessories

	<b>DYA046</b>	Coupling bar for WS+WD sensors on Ø 45 ÷ 65 mm. pole
	<b>DWA505</b>	Cable L. = 5 m.
	<b>DWA510</b>	Cable L. = 10 m.
	<b>DWA525</b>	Cable L. = 25 m.
	<b>DWA526</b>	Cable L. = 50 m.
	<b>DWA527</b>	Cable L. = 100 m.
	<b>MG2251</b>	7 pin free female connector
	<b>DNA204</b>	Spare part: rotor
	<b>MM2015</b>	Spare part: bearing
	<b>SVICA2203</b>	ISO9000 type calibration certificate (Wind Speed)
	<b>SVACA2216</b>	ISO17025-ACCREDIA type calibration certificate (Wind Speed)



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► Wind speed sensor can be mounted together with wind direction sensor using the DYAO46 coupling bar. On the same coupling bar room for additional sensor as Temperature&RH% and Radiation sensors is available.