WIND DIRECTION (Wind vane)

Compact wind vane



- Completely made in anodized aluminum assuring long lifetime with high protection grade to severe weather conditions and strong winds
- 0...1 V output. 10...30 V DC power supply
- High precision magnetic encoder for true full 0...360° measurement range
- Supplied with water-proof free connector (3-wires+ground) for easy connection to cable

With compact size and high mechanical strength, DNA212.1 sensor is particularly suited for use in strong wind applications, where long term reliability without maintenance is required, as in wind farms and wind turbine surveys. Ideal also for portable and light AWS and for wind-alarm applications where wind speed and direction are both important issues. On this regard, LSI LASTEM data loggers can detect specific alarm conditions and open digital outputs when wind speed is over a programmable value and wind direction is coming from a defined angle.

Technical Specifications

PN	DNA212.1	
Wind direction	Principle	Wind vane anemometer with magnetic Encoder
	Measuring range	0...360°
	Threshold	0.4 m/s
	Accuracy	3°
	Resolution	1°
General Information	Output	0...1 V
	Connector	7 pin male IP65 watertight connector
	Housing	Anodized aluminum
	Power supply	10...30 V DC
	Power consumption	0.4 W
	EMC	EN 6132-1 2013
	Protection grade	IP66
	Mounting	Mast Ø 48...50 mm
	Operative temperature	-48...60 °C (without ice)
	Data logger compatibility	E-Log, Alpha-Log

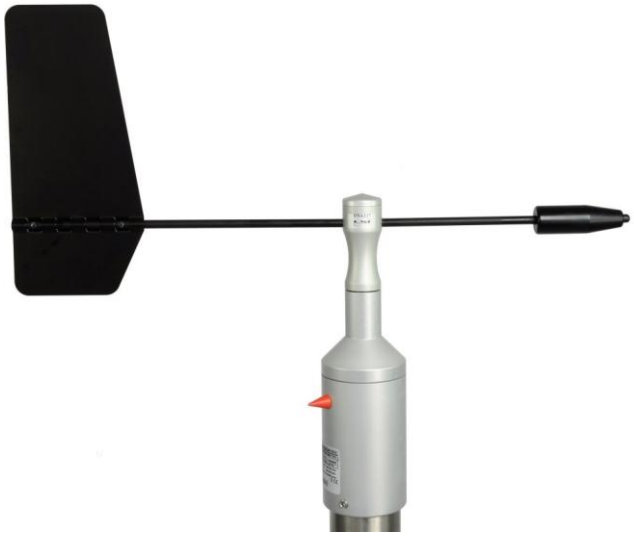
Accessories

	**DYA046**	Coupling bar for WS+WD sensors on Ø 45...65 mm pole
	**DWA505A**	Cable L=5 m
	DWA510A	Cable L=10 m
	DWA525A	Cable L=25 m
	DWA526A	Cable L=50 m
	**MG2251.R**	7 pin free female connector
	DNA218.R	Spare part: vane
	MM2001	Spare part: bearing
	SVICA2304	ISO9001 type calibration certificate
	CCDCA0004A	Adapter to connect the old DNA212 cable to the new DNA212.1 sensor

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Standard wind vane
(direct output)



- Analogue outputs: 0...1/5 V, 4...20 mA
- Very good values of Delay Distance and Damping ratio, according to VDI3786 and ASTM 5096-96 standards
- Heated version for cold weather
- Completely made in anodized aluminum assuring long lifetime with high protection grade to severe weather conditions and strong winds
- Sensor's design has been made to prevent water and dirtiness from entering the sensor's bearings area. This permits to avoid bearing replacement for the entire sensor life

Wind direction sensor with analogue outputs. These wind vanes are ideal when requirements call for simple integration with third party systems. DNA301.1-311.1 thanks to the 0...1 V output are ideal to be connected also to LSI LASTEM's acquisition systems. Low Delay Distance values and high precision magnetic encoder allow to obtain good accuracy even at very low wind speed conditions. DNA311.1-DNA811 versions are equipped with heaters to avoid ice formation on their body in very cold environments.

Technical Specifications

PN	DNA310.1	DNA311.1	DNA810	DNA811	DNA816
Principle	Magnetic encoder				
Output	0...1 V DC		4...20 mA		0...5 V DC
Power supply	10...30 V AC/DC	24 V AC	10...30 V AC/DC	24 V AC	10...30 V AC/DC
Max. load	-	-	300 Ohm		-
Heater	-	YES	-	YES	-
Heater operative temperature	-	>-20...4 °C	-	>-20...4 °C	-
Power Consumption	0.5 W	0.4 W+20 W (heater)	0.5 W	0.5 W+20 W (heater)	0.5 W
EMC	EN 6132-1 2013				
Data logger compatibility	E-Log, Alpha-Log				-

Common Technical Specifications

Wind direction	Measuring range	0...360°
	Accuracy	2°
	Threshold	0.15 m/s
	Delay distance	1.2 m (@ 10 m/s). According to VDI3786 and ASTM 5366-96
	Damping coeff.	0.21 (@ 10 m/s). According to VDI3786 and ASTM 5096-96
General Information	Connector	7 pin IP65 watertight connector
	Housing	Anodized aluminum
	EMC	EN 61326-1: 2013
	Protection grade	IP66
	Operative temperature	-40...80 °C (without ice)
	Mounting	Mast Ø 48...50 mm

Accessories

	**DYA046**	Coupling bar for WS+WD sensors on Ø 45...65 mm pole
	**DWA505A**	Cable L=5 m
	DWA510A	Cable L=10 m
	DWA525A	Cable L=25 m
	DWA526A	Cable L=50 m
	DWA527A	Cable L=100 m
	**MG2251.R**	7 pin free female connector
	DNA217.R	Spare part: vane
	MM2025	Spare part: bearing
	SVICA2304	ISO9001 type calibration certificate (Wind Direction)

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