


## Wind speed&direction (wind cup and vane)

| Models  |  |                         |                    |               |
|---|--|-------------------------|--------------------|---------------|
|  | <b>Combined Wind speed and Direction sensors</b>   |                         |                    |               |
|   | <p>Combined wind speed and wind direction sensor. Direct signal output for wind speed (Hz) and wind direction (0-1 Vdc). This sensor range includes, in a single apparatus, transducers for both wind speed and wind direction measurement. Its use simplifies installation requirements, other than being smaller, lighter and cheaper than the general 2-sensor kit. Model DWS122#S is equipped with a potentiometer and its wind direction output is in <math>\Omega</math>, with very low power consumption and it can be used in applications with limited energy availability.</p> |                         |                    |               |
| <b>Order numb.</b>  | <b>DWS121#C</b>  | <b>DWS122#C</b>         | <b>DWS821</b>      | <b>DWS827</b> |
| WS output   | 0÷833 Hz   |                         | 4÷20 mA            | 0÷5 Vdc       |
| WD output   | 0-1 Vdc  | 0-2000 $\Omega$         | 4÷20 mA            | 0÷5 Vdc       |
| Power supply  | 12 Vdc   |                         | 10÷30 Vac/dc       |               |
| Power consumption   | 30 mA  | 2 mA                    | 0,5 W              |               |
| Wind direction principle  | Hall effect sensor   | 2 K $\Omega$ potentiom. | Hall effect sensor |               |
| Microprocessor  | -  | -                       | PIC 18F2620        |               |
| Data logger compatibility   | M-Log (ELO007-008)<br>R-Log (ELR515), E-Log (all models)   |                         |                    |               |

| Common features.           |                       |  |
|----------------------------|-----------------------|--|
| <b>Wind speed</b>          | Principle             | N.32 step optoelectronic disk                      |
|                            | Measuring range       | 0-60 m/s   |
|                            | Uncertainty           | 0÷3 m/s=1,5%, >3 m/s= 1%                           |
|                            | Threshold             | 0,26 m/s   |
|                            | Delay distance        | 4,8 m (at 10 m/s). Acc to VDI3786 and ASTM 5096-96 |
|                            | Resolution            | 0,07 m/s   |
| <b>Wind direction</b>      | Principle             | See table above                                    |
|                            | Measuring range       | 0-360° (0-355° DNA122#C)                           |
|                            | Uncertainty           | 1%   |
|                            | Threshold             | 0,15 m/s   |
|                            | Resolution            | 0,3°   |
|                            | Delay distance        | 1,2 m (at 10 m/s). Acc to VDI3786 and ASTM 5366-96 |
|                            | Damping coeff.        | 0,21 (at 10 m/s). Acc to VDI3786 and ASTM 5096-96  |
| <b>General Information</b> | Connector             | 7 pin IP65 watertight connector                    |
|                            | Housing               | Anodized aluminum,                                 |
|                            | Cup                   | PA6 plastic and fiberglass                         |
|                            | Vane                  | Aluminum   |
|                            | Mounting              | Mast $\varnothing$ 48 ÷ 50 mm                      |
|                            | Protections           | Tranzorb and Emifilters                            |
|                            | Operative temperature | >-30°C (without ice)                               |

| Accessories | Order numb    |   |
|-------------|---------------|---|
|             | <b>DZC405</b> | Calibration certificate Includes in DNA121#C and DNA122#C |
|             | <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>DWS124</b> | Spare part: rotor   |
|             | <b>DWS127</b> | Spare part: vane  |
|             | <b>MM2011</b> | Spare part: bearings for Wind direction (QT.2 required)   |
|             | <b>MM2020</b> | Spare part: bearing for Wind speed (QT.2 required)        |