

## Combined Wind speed sensors



Combined wind speed sensor. Direct signal output for wind speed (Hz). This sensor range includes, in a single apparatus, transducers for both wind speed. Its use simplifies installation requirements, other than being smaller, lighter and cheaper than the general 2-sensor kit. Model WS122#S is equipped with a potentiometer and its wind direction output is in  $\Omega$ , with very low power consumption and it can be used in applications with limited energy availability. Data output of the WS921 model is RS485 using Modbus RTU® or TTY-ASCII protocols.

Order numb.	WS833.01	WS833.2000	WS420	WS05	WS485
Wind speed output	0÷833 Hz		4÷20 mA	0÷5 Vdc	RS485
Wind speed measuring range	0÷75 m/s (damage limit)		0÷60 m/s		
Wind Direction output	0÷1 Vdc	0÷2000 $\Omega$	4÷20 mA	0÷5 Vdc	RS485
Protocol	-	-	-	-	Modbus RTU® TTY-ASCII
WS Programmable output	-	-	-	-	Instant, max., min., ave. (1÷3600 sec)
WD programmable output	-	-	-	-	Instant, Prevalent sector (1÷3600 sec)
Configuration	-	-	-	-	Hyperterminal
Protection	Tranzorb		Tranzorb e Emifilters		
RS485 protection	-	-	-	-	Galvanic insulation (3 kV, UL1577)
RS485 speed	-	-	-	-	1200÷115 kbps
Power supply	12 Vdc		10÷30 Vac/dc		
Power consumption	30 mA	2 mA	0,5 W		
Wind direction principle	Hall effect system	2 k $\Omega$ potentiom.	Hall effect system		
Data logger compatibility	M-Log (ELO007-008) R-Log (ELR515) E/X-Log (all models)		-	-	-

### Common features

Wind speed	Principle	N.32 step optoelectronic disk
	Accuracy	0÷3 m/s=1,5%, >3 m/s= 1%
	Threshold	0,26 m/s
	Delay distance	4,8 m (@ 10 m/s) According to VDI3786 and ASTM 5096-96
	Resolution	0,07 m/s

<b>General information</b>	<b>Operative damage limit</b>	75 m/s
	<b>Connector</b>	7 pin IP65 watertight connector
	<b>Housing</b>	Anodized aluminum
	<b>Cup</b>	PA6 plastic and fiberglass
	<b>Vane</b>	Aluminum
	<b>Mounting</b>	Mast $\varnothing$ 48 ÷ 50 mm
	<b>Electric protections</b>	Tranzorb and Emifilters
	<b>Operative temperature</b>	>-30°C (without ice)
	<b>Mounting</b>	Mast $\varnothing$ 48÷50 mm

**Accessories**

**Order numb.**

<b>DZC405</b>	Calibration certificate Includes in WS833.01 and WS833.2000
<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>WS124</b>	Spare part: rotor
<b>WS127</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)

