

0183 WIND SENSOR



FEATURES

- Robust structure and materials
- iglidur®/beryllium-copper speed bearings
- iglidur®/anodised-aluminium vane bearings
- Sealed to IP68
- Magnetic sense of Direction
- Magnetic sense of Speed
- NMEA-0183
- Available in 3 different lengths

APPLICATIONS

- Marine
- Tower Cranes
- Road and Rail networks
- Agriculture

ABSOLUTE MAXIMUM RATINGS

PARAMETER	DESCRIPTION	NOTES	CONDI-TIONS	VALUE	UNIT
θ_{stor}	Storage Temp Range			-40 to +100	°C
θ_{op}	Operating Temp Range			-25 to +50	°C
V_{CC}	Supply Voltage			18	V
S_{MAX}	Wind Speed			80	Knots

PERFORMANCE

PARAMETER	DESCRIPTION	NOTES	CONDITIONS	MIN	TYP	MAX	UNIT
ERR_{WS}			10-40 knots		3	5	%
ERR_{DIR}			20knots		4	8	Degrees
t_{DSET}	Direction Settling Time		Minimum filtering			1.3	Second
t_{WSSET}	Speed Settling Time		Minimum filtering			2	Second
WV_{min}	Minimum Wind Velocity			1.7			knots

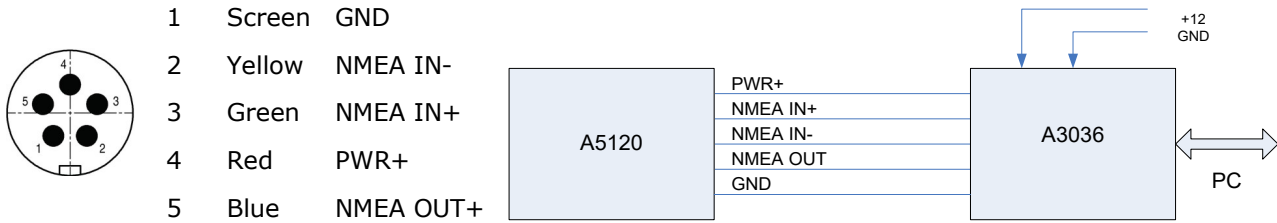
ELECTRICAL CHARACTERISTICS AT 20°C

PARAMETER	DESCRIPTION	NOTES	MIN	TYP	MAX	UNITS
V_{CC}	Supply Voltage		8	12	18	Vdc
I_{CC}	Current consumption	No NMEA loads		15		mA
N	Number of Output Loads				4	NMEA loads

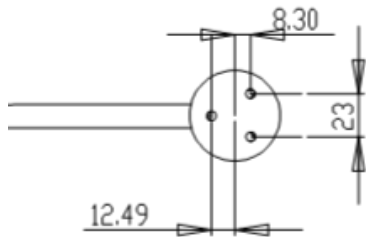
ORDER INFORMATION

A5120E	0183 Wind Extended
A5120N	0183 Wind Standard
A5120P	0183 Wind Power
A5901	0183 cable 7.5m
A5902	0183 cable 20m

NMEA CONNECTIONS



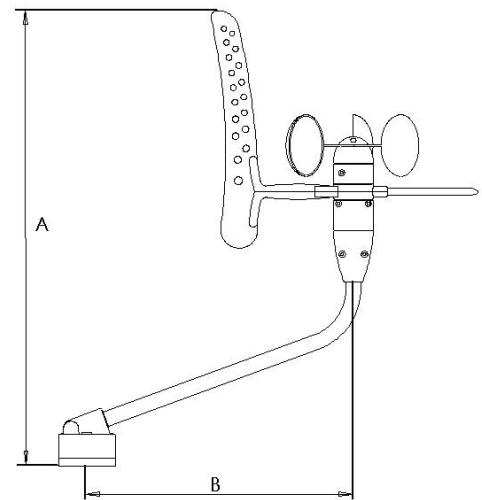
MECHANICAL DETAILS



Base fixing centres.
Holes are 5mm dia

The A5120E, N and P are supplied with 1m cable terminated in a Binder pin connector type 99 9113 03 05 with mating socket supplied

Dimensions mm		
A5120X	A	B
E	540	300
N	390	225
P	330	60



NMEA COMMANDS

Output sentences

\$WIMWV,a,a,R,s,s,N,A*hhhh<CR><LF>

where a.a = dir s.s= speed (kn)

*hhhh is set by the configure command: x=0 omit; x=1 hhhh = 2char checksum; x=2 hhhh = ID

\$YXXDR,C,x.x,C,WND*hhhh<CR><LF>

x.x = °C. This sentence not sent if y in configure command = 0; sent regularly if y=1 without *hhhh; if y=2 regularly with ID=hhhh

\$PATC,WIMWV,ACK<CR><LF> acknowledgement that a command was received

\$PATC,WIMWV,RID,xxxx<CR><LF> ID = xxxxx

Input sentences

\$PATC,IIMWV,AHD,x.x<CR><LF> set reference direction offset

\$PATC,IIMWV,DWD,x.x<CR><LF> set dir damping % - 000 to 999 (default 500ms)

\$PATC,IIMWV,TXP,xxx<CR><LF> output sentence rate in ms (default 500ms)

\$PATC,IIMWV,DSP,xxx<CR><LF> set speed damping % - 000 to 999 (default 500)

\$PATC,IIMWV,RID<CR><LF> report ID

\$PATC,IIMWV,CFG,xy<CR><LF> configure command. Default x=y=0. See manual for details.