

FEATURES

- IP68
- NMEA-0183
- 8-30V Supply
- Manual calibration with PC software
- Zero rotate ring
- Centre Hole
- Over-strength field protection
- Other versions available

APPLICATIONS

- Marine Compass Pickup
- Rudder Angle
- Trim-tab angle
- Shaft-angle Encoder

This sub-system senses the angle of a strong external magnetic field. Such a field is produced by large marine permanent-magnet compasses. By placing the A4032 under the compass the angle of the magnet is sensed and available as an NMEA-0183 sentence. A variety of options can be set. Calibration is assisted by a PC software utility.



ABSOLUTE MAXIMUM RATINGS

PARAMETER	DESCRIPTION	NOTES	CONDITIONS	VALUE	UNIT
q _{STOR}	Storage Temp Range			-20 to +100	°C
q _{OPER}	Operating Temp Range			-20 to +65	°C
	Shock Resistance		Single impact	±200	G
	Climate Test		+71°C, 95% Humidity -20°C, 85% Humidity	6	Hours
V _{CC}	Supply Voltage			30	Vdc
P _{MAX}	Operating Pressure Range			-2 to +20	Bar

MECHANICAL

DESCRIPTION	NOTES	CONDITIONS	TYPICAL VALUE	UNIT
Dimensions			See Drawing	
Sensor Mounting			Any	
Cable Length			1	m
Weather Resistance			Sealed to IP68	

ORDER INFORMATION

PART	DESCRIPTION
A4032	NMEA Compass Pickup

Calibration

The calibration software cannot be obtained via our website but it can be requested by email: info@autonnic.com

ELECTRICAL CHARACTERISTICS AT 20°C

PARAMETER	DESCRIPTION	NOTES	MIN	TYP	MAX	UNIT
V _{CC}	Supply Voltage		8	12	30	Vdc
I _{CC}	Current consumption			25		mA

NMEA-0183 OUTPUT FORMAT

The output from the compass is a standard NMEA-0183 sentence which can be configured to be in one of several standard forms: Eg:

\$HCHDG, hhh.h, ,,, *ss<CR><LF>

or \$HCHDT, hhh.h, T<CR><LF>

where hhh.h represents the magnetic heading with one decimal place of precision, i.e: 000.0 to 359.9 degrees. The two HEX digits, ss, are a checksum. Serial output is RS422, 4800 Baud, 8 data bits, 1 stop bit, no parity.

Other commands are listed in the Manual to set damping, output interval, calibration and a rich set of other options.

CONNECTIONS

Wire	Colour	Type	Function
1	Red	Power	+8 to +30V
2	Blue	Signal	NMEA OUT+
3	Green	Signal	NMEA IN+
4	Yellow	Signal	NMEA IN-
5	Screen	Power and Signal	GROUND 0V

DIMENSIONS

