

Compass MAG1-C

Applications:

Completion of sensor packages with an easily to integrate compass in a separate pressure vessel;
Applications that need information about their orientation relative to the magnetic field;
magnetic field measurement in the μT range;
detection of the earth magnetic field and its variations.

Working-principle:

Two-axial flux gate magnetometer with cardan suspension and silicon oil damping.

Simple handling:

Connections via under-water plug (micro-WetCON or custom specific);
Power supply 5 V (or 7 to 15 V) and two analogous outputs proportional to the horizontal components of the magnetic field for easy integration into data sampling packages.

Key data:

Electronics case:	CuZn35Ni2 (standard) Ø 40 mm x 145 mm (without plug)
Depth rating:	max. 2000 m
Mounting position:	cylinder axis vertical, plug above
Measuring range:	$\pm 65 \mu\text{T}$
Temperature coefficient:	$< 500 \text{ ppm/K}$
Axial ratio:	$1 \pm 5 \%$
Inclination:	$\pm 30^\circ$ to the vertical
Heading:	0 to $360^\circ \pm 1 \%$ (calibr.)
Operating temperature:	0 to 70° (standard) -25 to 85°C (industrial) -40 to 125°C (extended)
Power supply:	$5 \text{ Vdc} \pm 5 \%$ $< 35 \text{ mA}$ option 7 to 15 V $< 40 \text{ mA}$
Outputs:	2×0 to $+5 \text{ V}$ (standard)

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with under-water plug
Micro-WetCon
in mounting position

