

Single Axis Electromagnetic Speed Sensor

AEM1-G

ISO9001



JQA0950

Easy integration on different underwater vehicles



- Direct measurement of vehicle axial speed
- Digital (RS-232) and analog (0 to 5V) output
- Robust, light and compact sensor



JFE Advantech Co., Ltd.

Single Axis Electromagnetic Speed Sensor

AEM1-G

■ Description

The AEM1-G is a electromagnetic speed sensor designed for integration on different types of underwater vehicles (e.g. gliders and AUVs). This sensor directly measures the axial speed of the vehicle, which is a necessary parameter to accurately infer about spatialization of variables observed in the time-domain, and also to understand vehicle's flight dynamics. The sensor automatically output digital and analog signal after being powered on.

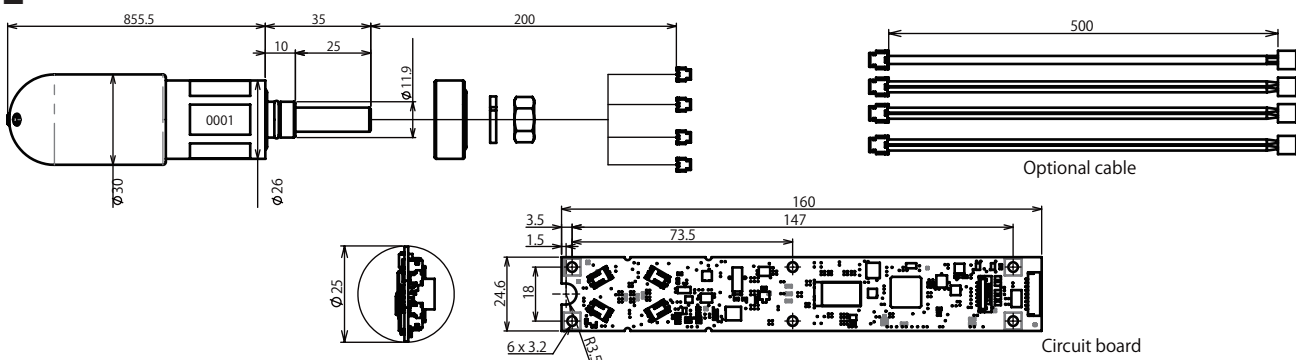
■ Sensor Specifications

| | |
|-------------------|----------------------------------|
| Sensor | Electromagnetic |
| Measurement range | 0 to 500 cm s ⁻¹ |
| Accuracy | ±0.5 cm s ⁻¹ or ±2%RD |
| Resolution | 0.02 cm s ⁻¹ |

■ Instrument Specifications

| | | |
|--------------------|---|--|
| Communication | RS-232 | |
| A/D converter | 16 bit digital conversion | |
| Sampling frequency | 10Hz | |
| Analog output | 0.3 to 4.5 V | |
| Operating voltage | DC 4.75 to 5.25 V | |
| Power consumption | 85mA ± 10% | |
| Materials | Flange and Sensor Shaft: Titanium (grade 2) | |
| Dimensions | Circuit board (KP1435) | L160 mm x W24.6 mm x H17.6 mm |
| | Sensor | L85.5 mm x D26 mm (flange) / D30 mm (head) |
| Weight | 167 ± 8 g (sensor + circuit board) | |
| Depth rating | 1500 m depth equivalent | |
| Cable length | Between the sensor and circuit board | 20 cm (standard) / 50 cm (optional) |
| | External (from the circuit board) | 50 cm (standard) / 10 m (max.) |

■ Drawing



※ Dimensions are in mm. ※ All specifications on this leaflet are subject to change without notice.

 **JFE Advantech Co., Ltd.**

JFE Ocean & River Instruments Division
URL: <http://www.jfe-advantech.co.jp/>

Head Office 3-48 Takahata cho, Nishinomiya, Hyogo 663-8202
TEL. +81-798-66-1783 FAX. +81-798-66-1654

Tokyo Head Office JFE Kuramae Bldg. 2F, 2-17-4 Kuramae, Taito ku, Tokyo 111-0051
TEL. +81-3-5825-5589 FAX. +81-3-5825-5591

Tohoku Sales Office TM Bldg. 2F, 1-3-1, Ichiban cho, Aoba ku, Sendai, Miyagi 980-0811
TEL. +81-22-711-7535 FAX. +81-22-711-7534