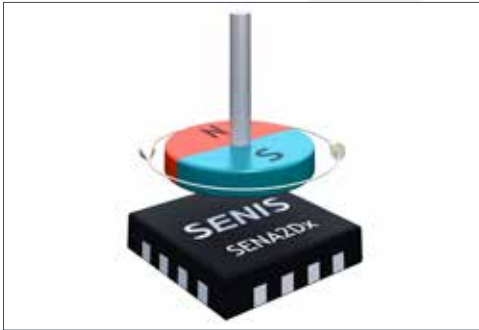




SENIS® FAMAS SENA2Dx FAst Magnetic Angle Sensor



Senis develops and manufactures advanced instruments for magnetic field and current measurement will present at Coiltech, FAMAS.

It is the first cost effective, fast and accurate magnetic angle sensor.

The disruptive algorithm, implemented in this sensor, includes a servo loop control system. It allows an angle sensing at practically unlimited **rotary speeds**, with ultimately **short and angle independent latency**. The implemented technique provides angle measurement of magnets **in on-the- and off-the-shaft topology**, no additional angle calculation steps needed.

The compact sensor arrangement (spatial resolution of Hall sensors is about $100\mu\text{m} \times 100\mu\text{m}$) reduces chip area and is then greatly independent on the size of the magnet mounted on a rotating object.

FAMAS is based on the combination of our two (patented) key enabling components:

- + High fidelity vertical Hall elements with at least 3 times better signal-to-noise ratio (1/f noise) than any other solution available on the market.
- + The implemented servo-loop method of measuring the angle of an external magnetic field.

The resulting features: ultimate angle **speed measurement** (up to 400'000rpm), high **accuracy** and **resolution** (better than 0.08°), **fast response** (typically $0.6\mu\text{s}$), **high magnetic field range** (20mT – 200mT), **cost effectiveness**.

The applications include digital angular sensor, 0–360°; absolute and incremental angular encoder, brushless motor control, motor feedback, rotational speed control.