



New Hall Effect puck and magnet rotary sensor with custom options: Variohm EuroSensor launch new two-part puck and magnet programmable angle sensor

Recently launched as part of the new Euro-CMRx range of miniature Hall Effect programmable angle sensors, Variohm EuroSensor's Euro-CMRK series comprises a two-part 'puck' and separate magnet design that is suited to position feedback tasks where especially compact dimensions and extreme durability are essential. Based on Variohm's well proven and now further improved encapsulated Hall Effect sensor technology, the CMRK's offers minimal axial length with customisable puck mounting and magnet dimensions. Available for single- or dual-redundant CW or CCW angle measurement, and a programmable range from 30° to 360° in 1° increments, the sensor outputs ratiometric or PWM signal levels from an industry standard 5 VDC input. With linearity to +/- 0.5% of the programmed signal range, the sensor offers a wide degree of application flexibility for decisive angle measurement in motorsports and automotive test and development, agricultural equipment, mobile construction machinery, industrial automation and more.



The CMRK features an anodised high-grade aluminium housing for added durability and the encapsulated sensor electronics helps to ensure an IP68 environmental rating. The sensors' vibration specification meets IEC 60068-2-6 with a 20 g rating at 5...2000 Hz ($A_{max} = 0.75$ mm). With no bearings and no coupling between the sensor electronics, the completely non-contacting design offers a typical life in excess of 100 million cycles. The CMRK's working temperature range, from -40° C to +125° C with short term operation to 150° C, combines with these impressive specifications for confident use in the most arduous conditions.



The miniature Euro-CMRK sensor has a 16.5 mm PCD radial slot mounting for two M2 mounting bolts, a maximum mounting flange width of only 21.5 mm and axial length of just 5.2 mm. A choice of five standard magnet options include threaded and plug designs with the further option of custom or user supplied magnets. Generous alignment tolerances, with the permitted radial offset

of +/- 3 mm and up to 3 mm between sensor and magnet faces, make for straightforward installation. In certain applications, the sensor electronics and magnet can be located through non-magnetic liquid or solid materials rather than air-space - adding further flexibility and enhanced protection in very space restricted or environmentally challenging applications.

Electrical connection is 500 mm long Raychem 55 cable in a three-wire version for the single channel variant and a six-wire version for the dual redundant model. Customer specified connector options and alternative cable lengths are also fully available on request.

The new puck and magnet style Euro-CMRK complements two other new Hall Effect housed designs from Variohm EuroSensor in its Euro-CMRx miniature angle sensor range. Both feature integral bearings and shafts and include encapsulated sensor electronics - offering similarly impressive environmental and electrical specifications. The Euro CMRT series has a miniature micro-threaded mounting, the Euro-CMRS has flange mounting. Whilst the dimensions for these new miniature sensors are the smallest currently available, a key design factor includes their ability for straightforward customisation and scalability to exactly match and simplify the customer's installation requirements.

The new Euro CMRx range was designed and is produced at Variohm EuroSensor's ISO 9001:2015 quality-certified UK manufacturing facility where the leading sensor supplier manufactures sensor components and sub-systems for position, force, pressure, load, and temperature measurement. Variohm is also a distribution partner for other selected sensor component producers and a supply chain partner for major manufacturers. The measurement specialist offers complete sales and application support across a comprehensive range of sensor-based applications in industry, construction, agriculture, motorsports, research and more.

Full specifications for the new Euro-CMRK and the other recently launched Euro-CMRx products are available for download under the [non contacting rotary sensors](#) section of the www.variohm.com website. Variohm EuroSensor's application engineers are on hand to discuss customer requirements and provide technical assistance from development through to after sales support.

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About Variohm EuroSensor

Variohm EuroSensor is a manufacturer, distributor and supply chain partner providing complete sales and application support across a comprehensive range of position, force, pressure, load, and temperature sensor technologies - for demanding measurement applications across industry, construction, agriculture, motorsports, research and more.

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