

ENCODER

## 30-mm diameter and 53,3-mm length

Baumer has released the EAM300 absolute multi-turn encoder. The size of 30-mm diameter and 53,3-mm length enables applications in medical devices, off-highway vehicles, and elevators.



*The EAM300 encoder with CANopen interface features an unparalleled position precision up to  $\pm 0,15^\circ$  (Source: Baumer)*

It is often difficult to integrate the rotary encoder in applications with moving parts and limited installation space. However, precise position measurement in the smallest possible design is essential especially in medical technology or for attachments in mobile automation. This is why Baumer is enhancing its product portfolio of the Magres EAM series with the EAM300 providing a CANopen interface compliant to the CiA 406 encoder profile or to the CiA 417 CANopen Lift profile. The encoders feature a 14-bit single-turn resolution (16384 steps per revolution) and an 18-bit multi-turn resolution (262144 revolutions).

The devices support the CiA 305 specification allowing configuring the node-ID and the bit-rate via the CANopen interface. The default setting for CiA 406 compliant encoders is a bit-rate of 50 kbit/s (not specified in CiA 301) and a node-ID of 1. CANopen Lift encoders come with a bit-rate of 250 kbit/s and a node-ID of 4.

The EAM 300 diameter is 30 mm, and its length is 59 mm (full shaft, radial) or 53,3 mm (hollow shaft, radial). Numerous variants ensure design freedom. The product is available in all combinations of full or hollow shaft encoder with plug or cable

connection as well as axial or radial outgoing unit. The encoders are available in IP67-rated housings. They are suitable for a temperature range from  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$ .

Similar to the larger variants EAM 360 and EAM 580, it is distinguished by the precision of up to  $\pm 0,15^\circ$ . The magnetic sensing reliably provides signals in rough environments regardless of dust and dirt. Robust ball bearings add stability. The company recommends the usage of the CiA 406 variant, for example, in medical technology such as mammography, radiology, and X-ray devices, or in accessory equipment in agricultural technology and construction machinery, as well as in factory automation with limited installation space. The CiA 417 versions are dedicated for elevators.

[hz](#)