

## New AM4096 12-bit magnetic encoder chip for digital motor control is the next step in OnAxis™ magnetic encoders

**Renishaw's new AM4096 magnetic encoder IC developed by its associate company RLS d.o.o. takes proven on-axis encoder technology a step further with increased functionality and reduced costs. The OnAxis™ technology is used in many demanding motor and control applications where traditional encoder technologies might fail.**



The AM4096 system on-chip magnetic encoder provides UVW outputs with 16 poles (8 pole pairs), incremental, absolute, linear (potentiometer), tachometer and sinusoidal outputs. Resolution is to 12-bit (4096 steps per turn) with a programmable zero position. The AM4096 is a 3.3 V (or 5 V) low power device with a sleep mode for battery operation. It can be supplied pre-programmed or may be customer programmed with settings stored within its on chip EEPROM. The magnetic encoder is capable of high speed operation to 30,000 rpm and can withstand temperatures from -40°C to +125°C.

Typical applications for the new magnetic encoder IC include commutation and high-speed motor control, position and velocity control, potentiometer replacement and optical encoder replacement.

All of the sensor and processing electronics have been placed within the compact silicon design. The rotation of a simple north / south magnet is picked up by the AM4096's sensor and provides absolute positional information output.

For more information about Renishaw's full range of position encoders, including magnetic encoder modules, magnetic encoder chips, magnetic rotary encoders, magnetic linear encoders and magnetic ring encoders, plus optical linear encoders and optical angle encoders, please visit:

[www.renishaw.com/encoders](http://www.renishaw.com/encoders)