



01™ MagENC for RC-servos

Magnetic Absolute Encoder with RC-Servo gear interface



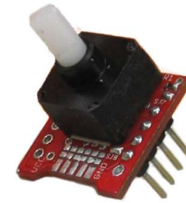
Overview

The **01™ MagEnc V3.0** for RC-servos is a magnetic absolute encoder featuring a resolution of **32768 ticks / revolution**.

It includes a custom magnet designed by **01™** and appropriate support plastic parts, so it can be easily incorporated inside an RC-servo or a low rev shaft of a motor (up to 200 rpm). Furthermore it can be integrated easily to any double shaft geared DC motor or a rotating shaft by using the tip provided together with a Heat Shrink Sleeve (diameter up to 8mm).

The plastic parts of the device are machined for optimum accuracy and performance.

The circuit is designed to cooperate seamlessly with any existing communication protocol as well as the **01™ PicoMCU** and the **01™ MotDrv** products!



Features

High resolution absolute encoder: The **01™ MagENC** absolute encoder is a *15-bit magnetic absolute encoder* module to monitor output shaft rotation. The angular resolution is $0,0109^\circ$ (32768 discrete positions per revolution). The **01™ MagEnc** absolute encoder features *machined* support and alignment parts and a SmCo ring magnet designed by **01™**.

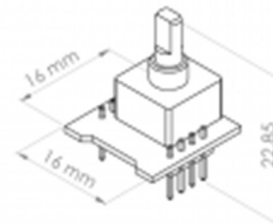
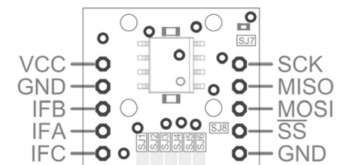
Communications: The **01™ MagENC** absolute encoder can communicate with the outside world in a variety of ways:

- I²C bus.
- RS-485, SPI, quadrature pulses / 90deg.
- 5V multi-node UART (01Mech protocol).
- Line transmitter provided on demand.

Tiny – fits easily anywhere: The **01™ MagENC** absolute encoder can be installed inside existing servos with a “click”, to a back-shaft of a geared motor, to a support axle to measure its movement, to a worm gear to get rotary feedback or can replace any potentiometer so to increase accuracy up to 15bits.

The possibilities are unlimited.

The **01™ MagENC** absolute encoder can be used to get **absolute feedback** from double shaft standard motors with Gearbox reduction (max 200 rpm). For larger values of rpms the **01™ MagENC for DC motors** is available.



Contact Information

ZEROONE Ltd
169 Megalou Alexandrou Str.
13562, Agioi Anargyroi
Athens, Greece
T: +30211 0127292
F: +30211 0127293
info@01mechatronics.com
<http://www.01mechatronics.com>