

# ENCODER ENCO 08 – SELF-POWERED ROTARY TRANSMITTER



The absolute encoder ENCO 08 is used for the custody transfer of mechanical totalizers (Vo) and for compliance with the calibration requirements for the recording of measured values (digital transmission of the counter reading).

The transmission takes place to evaluation devices, e.g. volume correctors or data loggers.

The ENCO 08 is connected to the totalizer via a gearwheel.

If the number wheel rotates, the rotation is transferred to the shaft of the encoder in ENCO 08.

The sampling of the absolute totalizer reading is performed magnetically by a Wiegand sensor module. To record the signals and output the totalizer reading, the ENCO is equipped with an electronic multi-turn.

The energy required for imaging and permanent storage of the meter reading is generated by the internal Wiegand sensor system. The ENCO 08 is thus completely self-powered, a battery or power supply is not necessary for operation.

As soon as a volume corrector is connected, it also delivers the necessary supply for the digital transmission (EZD protocol) of the meter reading.

The serial "NAMUR interface" is unidirectional and reactionless. An access to this one and other existing interfaces is only possible by opening a seal.

The ENCO 08 is parameterized using an operating software. The initial parameterization (e.g. "set totalizer reading") is carried out by the certified calibration center of RMG already in the factory. Further parameterization during commissioning on site is therefore not necessary.

The hardware consists of the Wiegand sensor with energy generation (Wiegand sensor module), counting logic (ASIC and Hall sensor) and totalizer memory (FRAM counter).

All application-specific device constants are stored non-volatile in the EEPROM of the microcontroller.

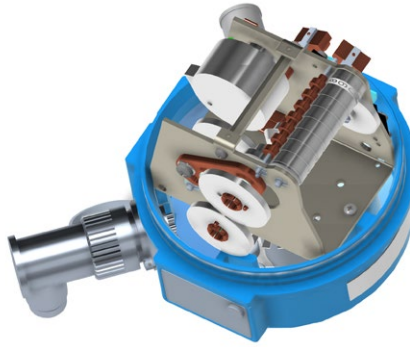
## Features

- Magnetic „absolute encoder“
- Continuous operation without external power supply
- Remote reading of a mechanical totalizer
- Maintenance-free
- Totalizer reading in non-volatile memory
- Totalizer reading digitally settable (PC software)
- Output of meter reading via NAMUR interface (EZD protocol)
- Insensitive to moisture and dirt
- High shock and vibration resistance
- MID approved
- PTB approved
- Protection class IP66 & IP67
- Temperature range:  
-40 °C to +55 °C (ATEX) / T6  
-25 °C to +55 °C (MID)

# VERSIONS

## ENCO 08

Integrated in the meter head of the turbine gas meter as an electronically readable and mechanical totalizer at the same time.



## ENCO 08-M

External Encoder for fitting on meter heads with mechanical drive shaft gemäß EN12261



## Approvals / Standards:

### Metrological approval:

- Certificate of Conformity as per OIML R137-1 (2012), EN12261:2002 + A1:2006, EN12480:2002 + A1:2006 (NMI: CoC-15200211-01)
- MID approval as per 2004/22/EC for integrated ENCO 08 in TRZ 03 (NMI: T10417)
- PTB approval as per annex 4 module B of the Measures and Verification Ordinance dated 11.12.2014 (DE-16-M-PTB-0021)

### EX approval:

- ATEX as per EN 60079-11:2012, EN 60079-0:2012 + A11:2013 (DEKRA: BVS 15 ATEX E 041 X)
- Marking: II 2G Ex ib IIC T6

### EMC approval:

- Approval as per EN61000-6-3:2007 + A1:2011 class B, EN 61000-6-2:2005 + corr.:2005

Technical data is subject to change without notice.

## For More Information

To learn more about products and solutions from RMG, visit [www.rmg.com](http://www.rmg.com) or contact your account manager.

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