



MAGRES hermetic

Robust absolute multi-turn encoders
with hermetically sealed housing

Motion Control
Sensor Solutions
Vision Technologies
Process Instrumentation

MAGRES hermetic. Absolute multi-turn encoders for HeavyDuty applications.

Highlights

- Hermetically sealed housing
- Patented magnetic position measurement
- Robust ball bearing setup with protected seal
- Housing in stainless steel
- Protection class IP 68 and IP 69K

Your benefit

- Unique robustness, reliability and long lifetime especially in harsh environments
- No ingress of water or other liquids while temperature variation
- Highly resistant against shock, vibration, dirt and condensation
- Optimum durable against sea water and other aggressive substances

The *MAGRES* principle – robust and contactless

MAGRES are highly robust encoders. They are based on the patented combination of magnetic single-turn and contactless multi-turn position measurement. This allows them to attain the best possible values with regard to shock and vibration resistance, compact size, temperature resistance and cost-effectiveness. The extensive product family ranges from variants with 30 mm housing via numerous fieldbus products to branch and customer specific solutions – the optimum choice for your application.

MAGRES hermetic – perfectly sealed

MAGRES hermetic encoders contain an additional hermetic encapsulation for the absolute multi-turn electronics. This unique encapsulation provides an insurmountable protection against aggressive fluids, such as sea water or cleaning agents from high pressure cleaners. Designed for harsh environments, *MAGRES hermetic* encoders have proven reliability and unrivalled lifetime. Explosion proof and inherently safe versions can be realized on request.

MAGRES hermetic. Perfect for harsh environment.

Renewable energy

MAGRES hermetic are perfectly suited for applications in the wind power industry due to their outstanding robustness and reliability.



Shipbuilding and logistics

MAGRES hermetic are robust, hermetically sealed and absolutely corrosion-resistant. They offer perfect performance, on shore and off-shore.



High pressure cleaning

MAGRES hermetic are unaffected by the high pressure wash-down processes commonly used in the food industry, with construction machines and commercial vehicles.



Typical application fields

- Outdoor applications
- Heavy vehicles
- Crane and ship building
- Food processing machinery



Optimum bearing protection

A Simmerring® seal provides high levels of protection to the bearing from dirt. In addition the Simmerring® seal is shielded from mechanical impact and UV light by a steel ring.

Clean-in-place compatible

Through cavity-free design and use of food-safe grease, *MAGRES hermetic* are well suited for long term high pressure cleaning.

Robust inspection window

Commissioning is simplified by a clearly visible LED status display. Easy adjustment of bus address is enabled by an impact resistant inspection window with hexagon head and M16 thread. This inspection window can be quickly opened and closed in a defined way.

The *MAGRES hermetic* family – key technical features



Mechanical data	
Housing	ø 58 mm
Shaft	ø 10 mm, clamping flange
Shaft load	≤ 280 N radial, ≤ 120 N axial (combined) ≤ 270 N axial (single load)
Resistance	Vibration 30g, 10 ... 2000 Hz Shock 300g, 2 ms
Protection class	IP 68 ¹⁾ , IP 69K
Operating temperature	-40 ... +85 °C
Explosion protection ²⁾	Ex II3D Txx °C (zone 22)
Materials ²⁾	Stainless steel 1.4305

Electrical data		
Supply voltage	5 VDC (SSI only) 10 ... 30 VDC	
Interface integrated	SSI	12/13 bit
	Connector M12 / cable radial	
	CANopen	12/18 bit
	Profibus-DP	13/16 bit
	Connector M12 radial	
Modular bus covers	CANopen	12/18 bit
	Profibus-DP	13/16 bit
	DeviceNet	12/16 bit
	EtherCAT	12/16 bit
	Connector M12 / cable radial	

¹⁾ Test conditions: water 20 °C, depth 1 m, 24 h

²⁾ more materials and specifications on request

For more information on *MAGRES hermetic* encoders, visit www.baumerelectric.com/en/259.html

Find the wide range of encoders in our motion control catalog. Please order your free copy!

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