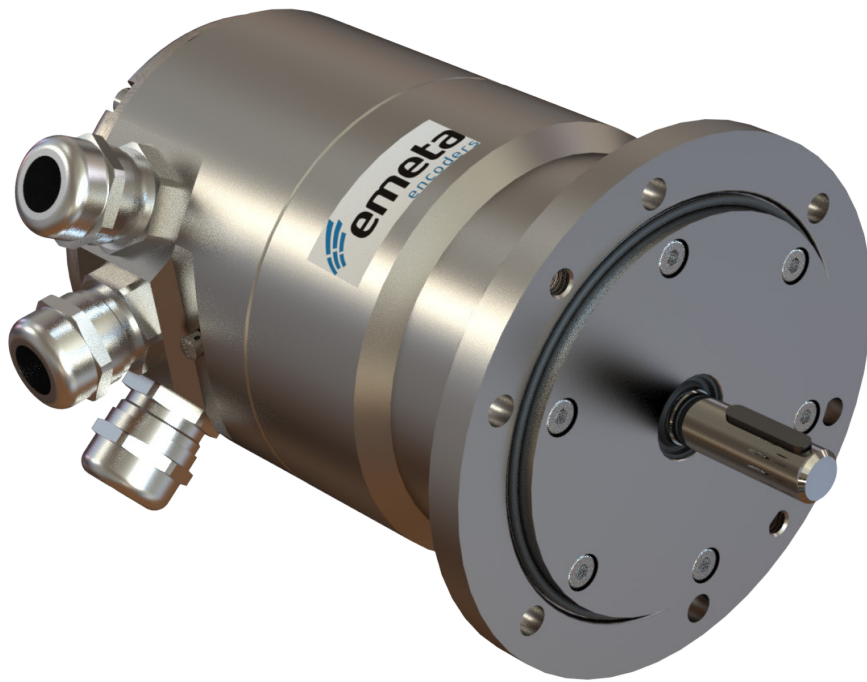


PRODUCT INTRODUCTION

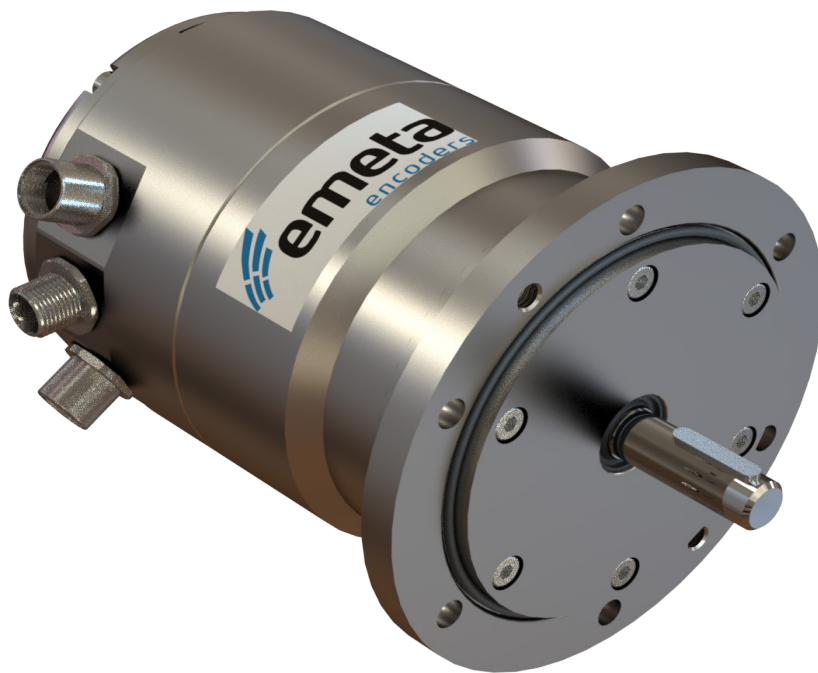


MA4401

Heavy Duty Encoder

A new series of Profinet encoders for use in harsh and demanding environments.

PRODUCT INTRODUCTION



MA4401

Heavy Duty Profinet Encoder

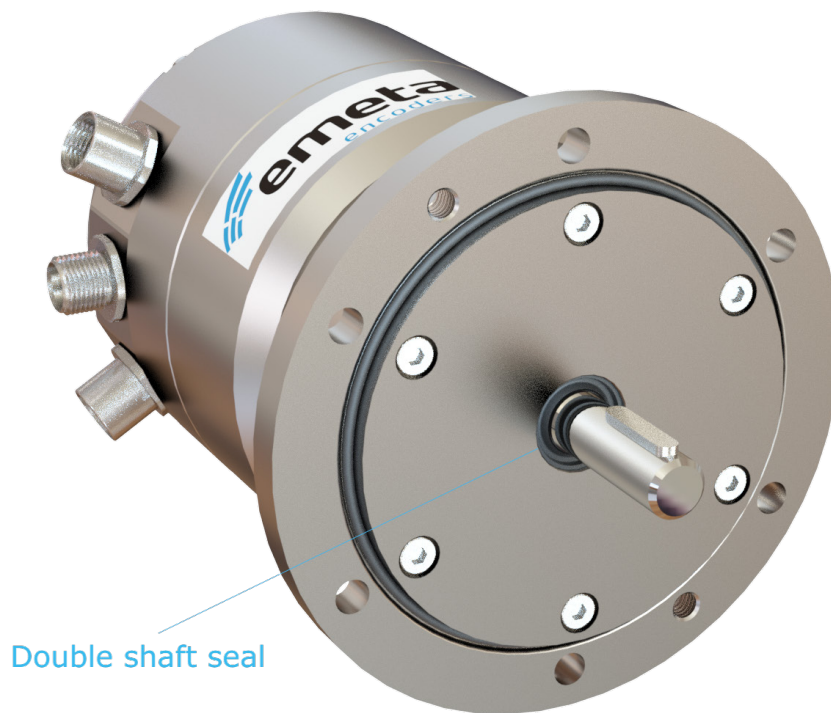
BUILT TO LAST

The latest encoder from Emeta is designed for harsh and demanding environments. This robust encoder is available with an aluminium or Stainless Steel AISI 316 housing. The encoder comes with 115mm B10 mounting flange and $\varnothing 11$ mm solid shaft with key-way to prevent slip.

With features such as double shaft sealings, breathable membrane filter and mechanical locking this encoder will withstand even the harshest environments.



PRODUCT INTRODUCTION



MA4401

Heavy Duty Profinet Encoder

Double Shaft-Sealing

Through extensive research and development for one of our customer the MA4401 has been incorporated with the latest features to benefit the usage in harsh environments.

One of these features include the shaft protection. The rotary shaft protection seal arrangement consists of 2 shaft sealings with protective lip. The sealings ensure protection against moisture, fluids and dust from entering via the shaft.

PRODUCT INTRODUCTION



Breathable membrane

MA4401

Heavy Duty Profinet Encoder

Breathable Membrane Filters

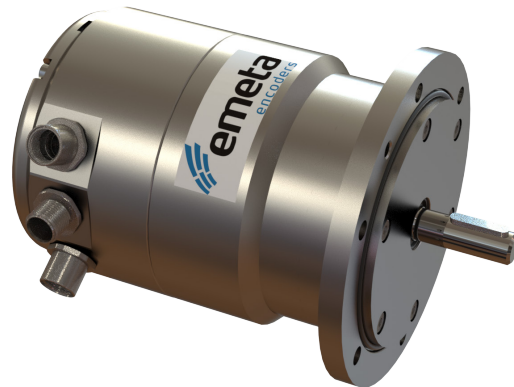
Located on the side of the housing under a hollow screw.
The membrane filter acts as a vent, allowing airflow and at the same time prevents condensation due to fluctuations in temperature.

The membrane filters are incorporated in all of
Emetas heavy duty encoders used in rough environments to ensure durability.

PRODUCT INTRODUCTION



Radial Cable (D)



Radial M12 (E)

MA4401

Heavy Duty Profinet Encoder

Connections

The MA4401-Series can be supplied with various types of connections suitable for your application type. Standard connection types:

Radial Cable (D)

Radial M12 (E)

SPECIFICATIONS

Mechanical

Housing	Stainless steel AISI 316
Shaft	Stainless steel 1.4057 (ø 11mm)
EncapsulationI	P67
Operating temperature	-40°C to +85°C
Humidity	98% RH, no condensation
Bearings	Permanently greased
Bearing load at 1 000 rpm	Radial<350N Axial<250N
Max rpm	3 000 rpm
Vibration	10g 10 - 1000 Hz (EN60068-2-6)Shock 100g at 6 ms (EN60068-2-27)
Weight	3,6kg (AISI316)

Interface

Interface	Profinet
Speed	Real Time (RT), Isochronous Real Time (IRT) Profile Profidrive Profile 4.x, Encoder Profile 4.0, 4.1, 4.2
Diagnostics	Different faults and warnings for Memory, Temperature, Synchronization, Commissioning diagnostics, Commissioning invalid scaling, Communication, Master's sign of life
Features	Boot-Loader, Round Axis, Flashing LEDs,MRP, MRPD, Acceleration values
Transmission Rate	100 Mbit
Interface Cycle Time	≥ 125 µs
Programming -Functions	Resolution, time base and filter for velocity, preset, counting direction, IP-Address, Fractional scaling, Encoder parameter control via GSDML or Non-Volatile memory

Sensor

Technology	Optical
Resolution Singleturn	16 bit
Resolution Multiturn	Mechanical Gearing (no battery)
Accuracy (INL)	±0.0220° (14-16 bit) ±0.0439° (≤13 bit)
Code	Binary

Outputs

Output Driver	Ethernet
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Electrical Data

Supply Voltage	10-32 VDC
Power Consumption	≤ 3W
Start-Up Time	< 15 s
Max Permissible Electric Speed	12000 1/min (12bit), 100 1/min (16bit)
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
EMC: Emitted interface	DIN EN 61000-6-4
EMC: Noise Immunity	DIN EN 610006-2
MTTF	95 years @ 40 ° C

PRODUCT INTRODUCTION



Customer satisfaction

We aim to please our customers and their needs.

Emeta strives to have a close relationship with our customers and are happy to help with new projects. Most of our encoders can be customized upon request. If you have any question regarding our products feel free to contact us!

Emeta Encoders

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