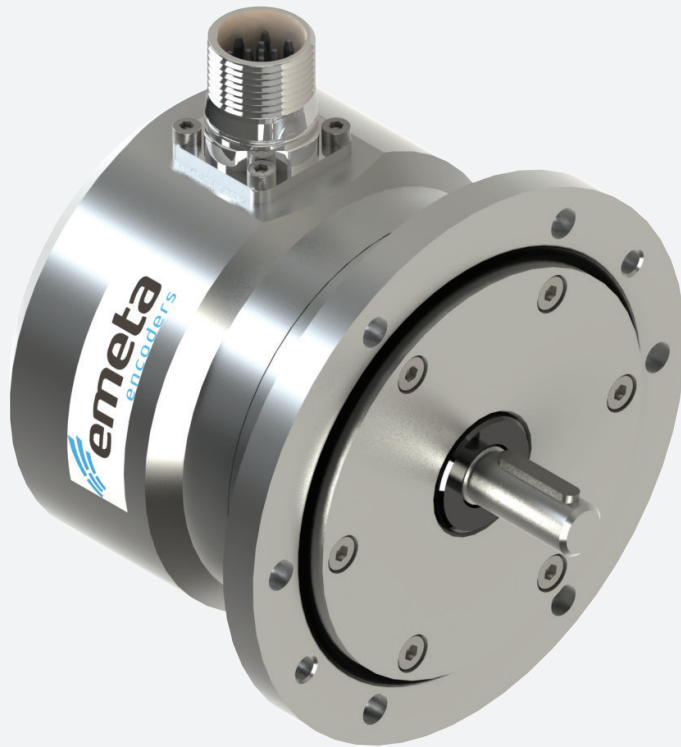


MA410 - SERIES



HEAVY DUTY INCREMENTAL ENCODER Ø 115 MM

Encoder with EURO-flange B10 in stainless steel AISI 316

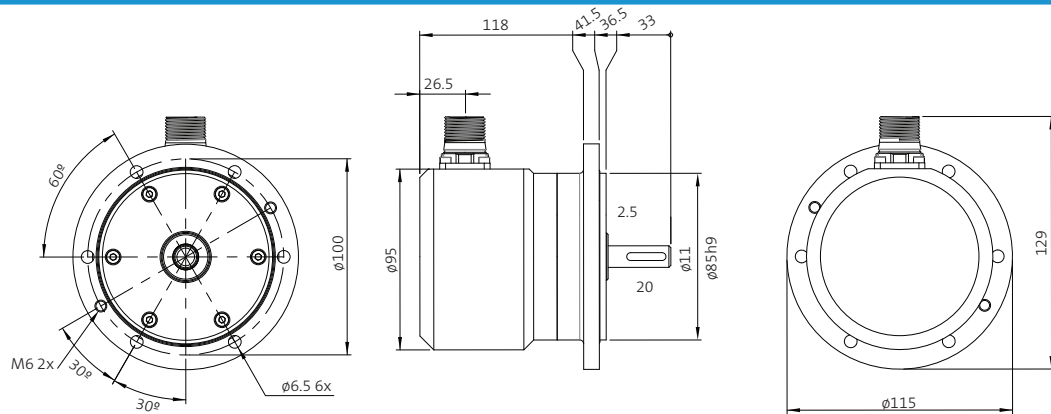
- Offshore and salt water firm
- Ø 115 mm, stainless steel AISI 316
- Ø 11 mm shaft with key, stainless steel 1.4057
- Enlarged sturdy bearings
- Short circuit & reversed polarity proof
- Dust and splash proof IP67
- Standard
 - 5-30 Vdc power supply, 300 kHz
 - 2 square wave signals & marker pulse
 - Inverted signals with power SENSE lines
- Option: Anodized aluminium enclosure



*Flexible and durable
encoder for demanding
applications*



Conforms to european EMC directive
89/336/EEC standards:
EN61000-6-4 emission in industrial environments
EN61000-6-2 immunity in industrial environments



Connection B (Cable gland)

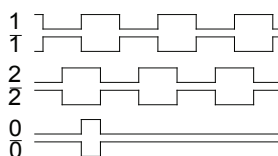
Connection C (Terminal box)

ELECTRICAL SPECIFICATION

Electronic option	T (TTL)	H (HTL)
Supply voltage	5 Vdc	5–30 Vdc (SELV)
Current consumption	Max 40 mA without load	
Output circuit	Linedriver RS422A compatible	
Low level output volt.	Max <0,5 V at 20 mA load and 20°C	
High level output volt.	Min >Vcc-1V at 20mA load and 20°C	
Short circuit protected	Yes	
Polarity protected	Yes	
Transient protected	Yes	
Max load	70 mA	

OUTPUT SIGNALS

CCW rotation viewed
from shaft end



SIGNAL ACCURACY

Dividing error max	± 50 el°
Channel separation	90 ± 20 el°
Max frequency	300 kHz
Operating temperature	-40° .. + 80°C (100°C on special request)

MECHANICAL SPECIFICATION

Housing	Stainless steel AISI 316
Shaft	Stainless steel 1.4057
Sealing	IP67 dust and splash proof
Bearings	Permanently greased
Bearing load at	1 000 rpm
Radial	<350 N
Axial	<250 N
Max rpm	12 000 rpm
Weight	3,6 kg (AISI316), 1,5 kg (Aluminium)

CONNECTION TYPE

A	Radial 12-pin M23 Male Connector, CCW
B	Radial cable, 5m length
C	Terminal box with cable gland for ø6-ø12mm

FUNCTION

Signal	A (Pin)	B (Color)	C (Terminal)
1	5	Brown	4
2	8	Grey	6
0	3	Red	8
1 inverted	6	Green	5
2 inverted	1	Pink	7
0 inverted	4	Black	9
+V	12	Brown/Green	1
0V	10	White/Green	2
+V sense	2	Blue	-
0V sense	11	White	-
Gnd	Chassis	Screen	Chassis

ORDERING CODE

Model	MA410 - SA - H1024
Material	
A = Aluminium	
S = Stainless	
Connection type	
A = 12 pin M23	
B = Cable 5m	
C = Terminal box	
Electrical option	
T = TTL	
H = HTL	
Pulserate	

