

# MA4311 - SERIES



## HEAVY DUTY ABSOLUTE ENCODER Ø 115 MM, SINGLE OR MULTITURN

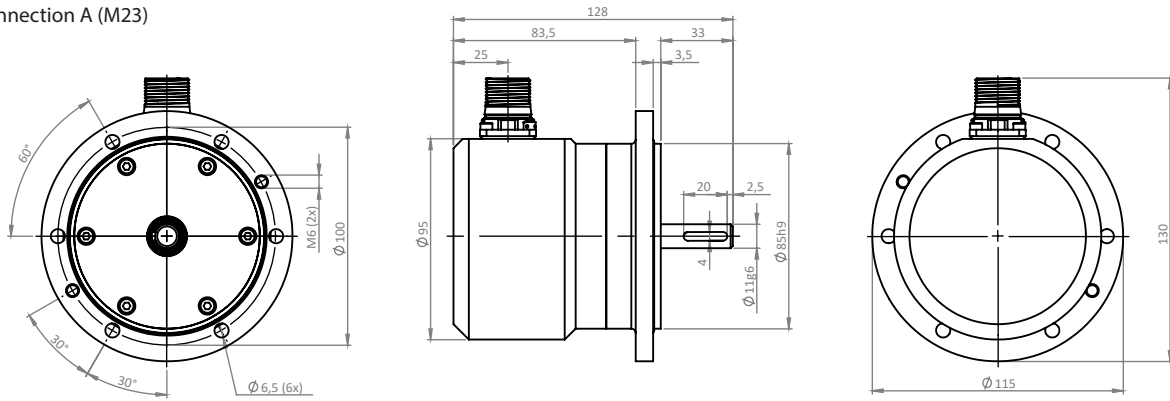
Encoder with EURO-flange B10 in stainless steel AISI 316

- CANopen, DS406
- Offshore and salt water firm
- Ø 115 mm, B10 stainless steel AISI 316 or Anodized Aluminium
- Ø 11 mm shaft with key way, stainless steel 1.4057
- Enlarged sturdy bearings
- Short circuit and reversed polarity proof
- Dust & splash proof IP67
- High resolution up to 25 bit
- Breathable membrane ( Double on terminal box)
- Double shaft seal with protective lip

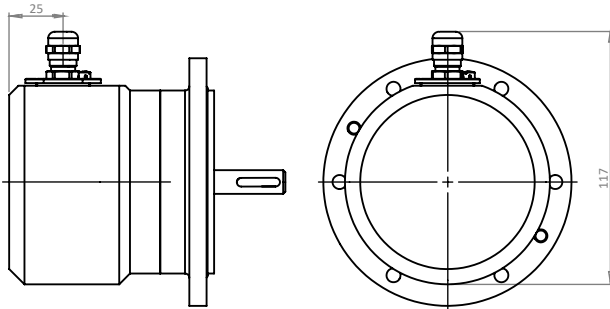


Conforms to european EMC directive  
89/336/EEC standards:  
EN61000-6-4 emission in industrial environments  
EN61000-6-2 immunity in industrial environments

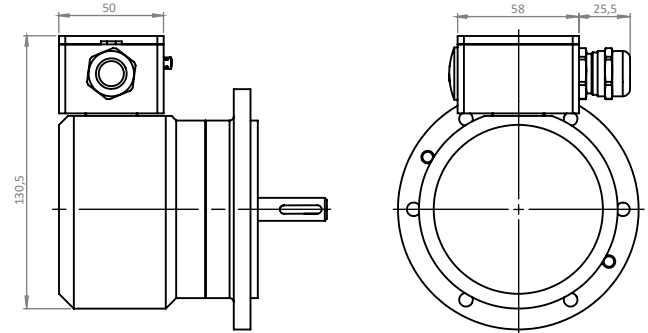
Connection A (M23)



Connection B (Cable gland)



Connection C (Terminal box)



## ELECTRICAL SPECIFICATIONS

Supply Voltage	10–30 Vdc (EN50178)
Interface	CANopen (DS-406)
Resolution Singleturn	Up to 16 bit
Revolutions Multiturn	14 bit
Multiturn Technology	Mechanical Gear
Singleturn Accuracy	±½ LSB (up to 12 bit)
Interface Cycle Time	> 1 ms
Power Consumption	Max. 2,5 W
Start up Time	< 250 ms

## MECHANICAL SPECIFICATIONS

Housing	Stainless steel AISI 316
Shaft	Stainless steel 1.4057
Encapsulation	IP67
Operating temperature	-30°C to +70°C
Bearings	Permanently greased
Bearing load at	1 000 rpm
Radial	<350 N
Axial	<250 N
Max rpm	3 000 rpm
Vibration	10g 20-2000 Hz (EN60068-2-6)
Shock	100g at 6 ms (EN60068-2-27)
Weight	3,6 kg (AISI316), 1,5 kg (Aluminium)

## PROGRAMMABLE FUNCTIONS

Resolution, Preset, 2 limit switches, 8 CAMS, Baud rate, CAN-Identifier, Bootloader, Transmission modes: polled, cyclic, sync

CONNECTION	A	B	C
Signal	Pin	Color	Pin
CAN Ground	3	Green	2
CAN High	7	Yellow	3
CAN Low	2	Pink	4
CAN Ground	NA	NA	9
CAN High	NA	NA	8
CAN Low	NA	NA	7
+ V	12	White	1
0 V	10	Brown	10

## ORDERING KEY

Model - Material - Connection - Interface - Resolution

Model	MA4311		
Material	S	Stainless Steel	
	A	Aluminium	
Connection	A	16-pin M23 Male Connector CW	
	B	Radial Cable 5 meter length	
	C	Terminal box, for ø6-ø12mm cable	
Interface	C	CANopen	
Resolution			
Multiturn	YY	YY bit (00 indicates singleturn)	
Singleturn	ZZ	ZZ bit	
Sample ordering key			
MA4311-SA-C0012			CANopen, Singleturn
MA4311-SB-C1213			CANopen, Multiturn, Radial cable 5m