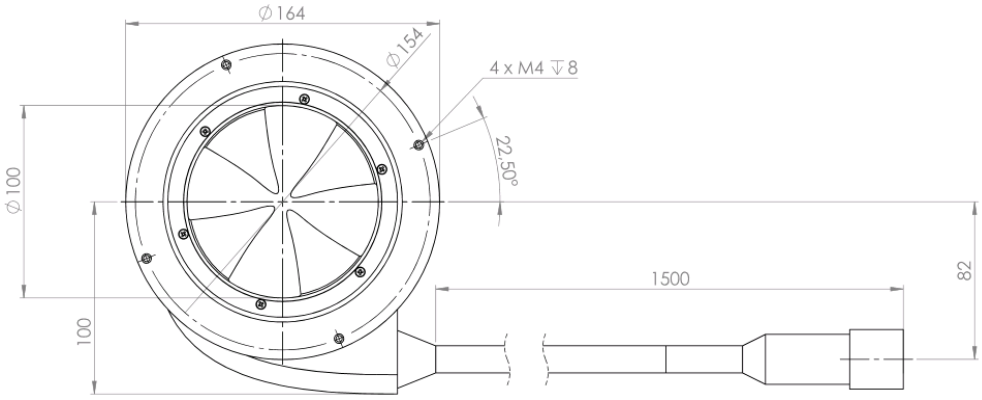

Introduction

The electrical Rim-Driven Thruster consist of an electric torque motor, which drives an inside propeller. This configuration allows very efficient, along with the special power electronics precisely controllable relapses, at a very high efficiency. The thruster is designed to be used in water depths up to 6,000 m.

Due to the consistent application of the pressure-tolerant technology the thrusters are very robust and nearly maintenance-free. They are responsive, powerful and easy to integrate and will provide a unique combination of ultra-compact power and high maneuverability.

Benefits

- Unique technology without seals
- Two solid molded parts - No sealing needed, no oil or air inside
- High reliability, rugged design
- Only three moving parts – direct driven propeller – no gear
- High torque at low RPM
- Low friction Seawater lubricated bearings – simple to service
- Hub less propeller - low risk of entanglement
- Easy exchangeable propeller
- Symmetrical forward and reverse thrust
- Integrated temperature monitoring
- Diverse options for connections
- Different voltage and interface options

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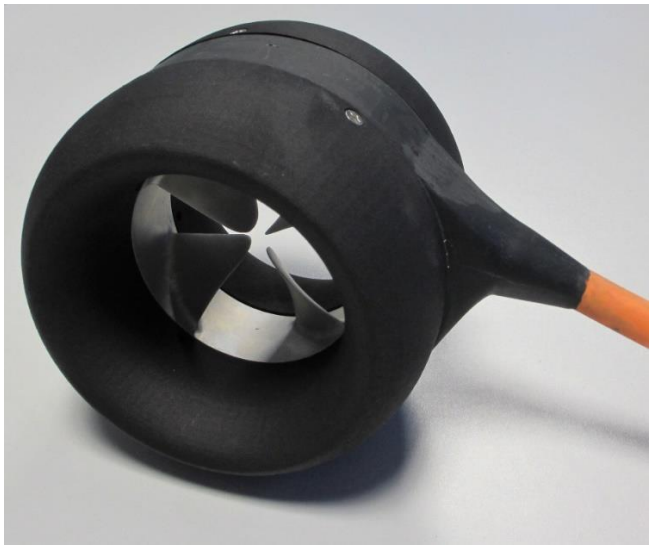
Thruster T100 with cable



Thruster T100 with cable and duct

Thruster with attached connector on the left and with duct and attached connector on the right

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Thruster with duct and cable T160 on the left and T100 on the right.

Specifications

- Max. depth: 6,000 m
- Thrust: 20 kgf
- Power: 1,2 kW
- Voltage: 24, 48, 110 VDC
- Max. rpm: 2,300 rpm
- Weight: 2.7 kg (air), 1.7 kg (fresh water)

Applications

- UUVs
- ROVs
- AUVs
- Manned underwater vehicles
- Surface crafts

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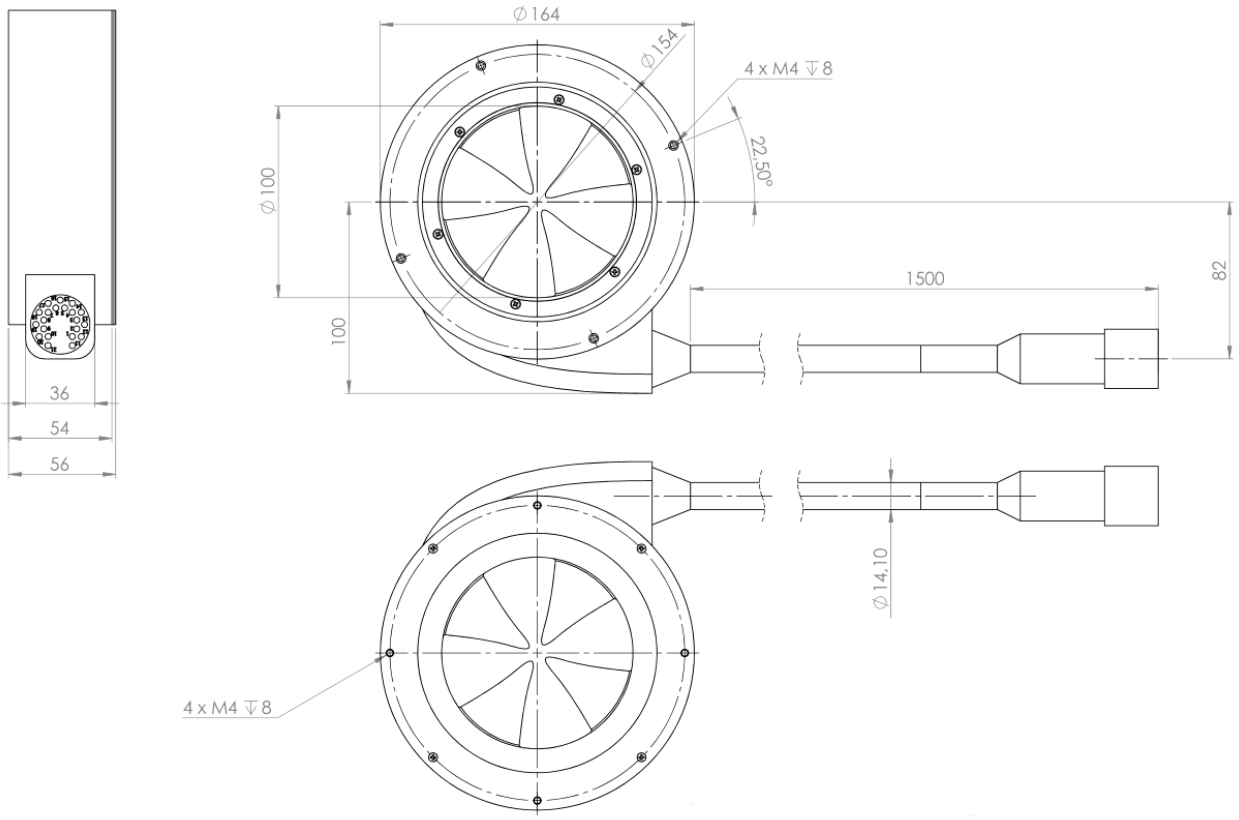
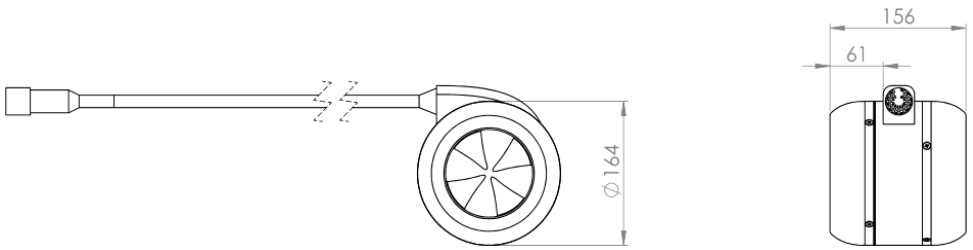
Dimensions



Dimensions with duct



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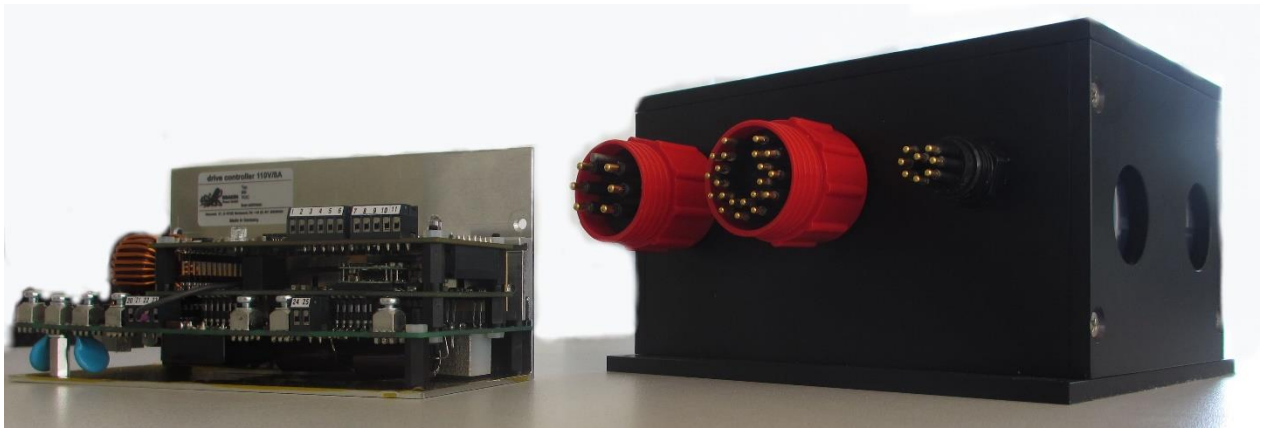
Control Electronic



The Controller on the left is NoPT and on the right is PT.

Controller NoPT with open case

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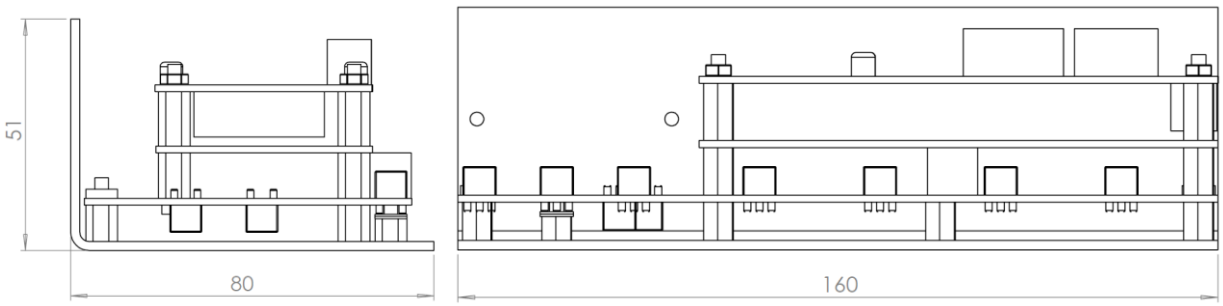
Specifications

- 2-Phase high current Microcontroller based thruster driver
- RPM- or Current control
- simple reprogramming
- Software package on demand

- Operation depth: pressure tolerant 6,000 m or pressure vessel
- Power: 1 kW
- Voltage: 24 - 120 VDC
- Interface: RS485; RS422; CAN; RS232; Analog ± 5, 10, 24 VDC

Dimensions



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Configurations and Part Numbering

T100VvvvDddEFHG

vvv - Supply Voltage

024	24 VDC (18-30 VDC)
048	48 VDC (42-57 VDC)
072	72 VDC (65-86 VDC
110	110 VDC* (85-114 VDC)
0HV	Please ask for higher bus voltage

dd - Working Depth

10	< 1,000 m
60	1,000 ⇔ 6,000 m
99	Full Ocean Depth on demand

E – Propeller Direction

L	CCW
R	CW
S	Symmetric

F – Duct

D	Ducted Thruster
N	No Duct
S	Special Duct

H – Controller Interface

0	RS422
1	RS485
2	RS232
3	CAN
4	Analog
5	PWM

G - Controller Design

A	NOPT - Open Frame Electronic Board
B	PBOF - Open Frame Electronic but pressure resistant to 6,000 m (20,000 ft)
C	PT - Pressure Tolerant Molded (DNS-Silicone)

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