## DATASHEET

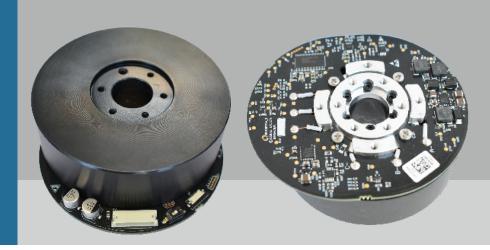


# MIRANDA"

"Servotorg" Integrated Servo Motor

### **FEATURES**

- All-In-One, Precision, Direct-Drive Motion
- Class-Leading Positional Accuracy and Repeatability
- Smooth and Silent Motion
- Zero Backlash
- Low Size, Weight and Power
- 1.0Nm Output Torque
- Exceptional Reliability



## **Compact, Smooth and Accurate Motion for Advanced Sensor Positioning**

Part of the **Servotorq** series of Integrated Servo Motors and designed for applications requiring exceptional positional accuracy and repeatability, **Miranda** delivers smooth, fast, silent and precise motion in a compact, standalone package. Its small footprint makes it ideal for integration in to a wide variety of sensor position applications including broadcast cameras and PTZ applications.

#### **Fully Integrated Solution**

Miranda combines an Overview designed BLDC motor, advanced control electronics, a high-performance servo and a precision rotary position encoder into a fully integrated, direct-drive, motion control solution.

#### Easy Integration

Miranda has been designed with simplicity for the integrator in mind and supported by its simple connectivity via a standard I<sup>2</sup>C interface and supply voltage, significantly reduces product development effort and overall system costs, which means that time-to-market and production efficiencies can be significantly improved for the integrator. Miranda's compact design, just 88mm at its widest point, also supports integrators in the design of simpler and more attractive end products.

#### **Best in Class Performance**

Miranda has a wide dynamic speed range of between 0.05°/s and 720°/s. Integrated drive control electronics and software provide closed-loop servo control, delivering position, velocity and acceleration control. Miranda also provides rapid and precise positional control, with 0.007° repeatability and zero backlash advanced sensor technology. It is robust and reliable, supporting a wide range of environmental conditions.

#### **Technical Specification**

Part Number	OVU20012
Electrical Specifications	
Nominal Voltage	24V DC
Current at max torque at 24v	1A
Initialisation Current	1A
Idle, no load, current	50mA
Position command & readback resolution	0.007°
Maximum speed	720°/s
Min. non-zero speed	0.05°/s
Mechanical Specifications	
Weight	570g
Dimensions (LxWxH)	88mm x 78mm x 30mm
Rotor moment of inertia	2350gcm²
Stall torque	1.0Nm
Moving Torque (at 360°s <sup>-1</sup> )	0.85Nm
Maximum radial load	1900N
Maximum axial load	475N
Bearing Type	Deep groove ball bearing (sealed)
Rotation Range	Software configurable for continuous or limited rotation
Hollow Spindle bore internal dia.	16mm
Environmental Specifications	
Operational Temperature Range	-40°C to +75°C
Humidity Range (Standard Operation)	5% to 90% RH (non-condensing)

Note: Specifications subject to change without notice.

Miranda is part of the Servotorq series of Integrated Servo Motors, designed, developed and manufactured by Overview Ltd. Other models in the range include:  $Juno^{TM}$ ,  $Titan^{TM}$ ,  $Leto^{TM}$ ,  $Atlas^{TM}$  and  $Artemis^{TM}$ .



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