

Low Voltage Electrical Power Swivel

Model 440

Focal Technologies Corporation, a Moog Inc. company, has over 30 years of expertise in supplying standard and custom marine products for harsh environment applications and is a leading manufacturer of high performance and high quality swivels. Contact Focal for any assistance in selecting the best solution for your requirements.

Description

The Model 440 is the base model for a family of low voltage swivels with a hollow bore. This model provides a rotating connection for power and signal cables. The shaft is generally configured with hanging cable pigtails that are factory installed, and can be replaced in the field by Focal. On the ship side, the swivel is typically fitted with increased safety junction boxes.

The Model 440 can have a hollow bore ranging from 25 mm up to 1300 mm, and the swivel is certified as a flameproof enclosure (Ex d, Ex de when supplied with increased safety junction boxes), with an Ingress Protection rating of IP66.

All 400 series products are intended for use in swivel stacks of Floating Production Systems (FPS). They are well suited for any application requiring a product that can withstand harsh marine conditions or require long life with minimal maintenance intervals. Designed and manufactured in our ISO 9001 facility under our project management system, products have a two year warranty and are provided with a complete document package.

All products can be modified to meet specific requirements. Installation, commissioning and service is available.

Features

- 316 stainless steel housing
- Hazardous area certified / maritime classification
- Hollow bore
- IP66
- Temperature: -20 °C to +60 °C

Options

- Temperature sensor / heater
- Shaft encoder
- Extended temperature range
- IP68-20 m
- Connectors
- Model 490 Data Acquisition System
- Model 491 conduit assemblies



Specifications

Electrical Power	
Passes	Up to 50
Voltage	1000 V max
Current	Up to 1000 A/pass
Fault Current	50 kA - 1 sec
Grounding / Bonding	External ground connection
Electrical Signal	
Passes	Up to 400
Voltage	1000 V max
Current	Typically 10 A/pass
Interface	
Mounting	Pedestal, designed to meet customer requirements
Access	Hatches, connectors, junction boxes
Drive	Torque ears, dimensioned as required Torque arm(s) by others, loose couple required.
Rotation rate	1 rpm, max
Torque	Depends on configuration
Cable entry	Cables enter the enclosure directly through cable glands. Terminals are accessible via hatches or junction boxes
Certifications	
Marine ¹⁾	ABS, DNV GL LRS, BV
Hazardous Area ¹⁾	Ex d IIB T5 Gb Ex de[ib] IIB T5 Gb ATEX, IECEx, AEx, CSA, IEC

1) Available on request.

Environmental	
Temperature	-20 °C to +60 °C (operating) -20 °C to +85 °C (storage)
Ingress	IP66
Vibration	1 g in any direction
Physical	
Height	14 ft [4.3 m] max
Diameter	6.6 ft [2 m] max
Bore Diameter	4.3 ft [1.3 m] max
Weight	Depends on configuration
All dimensions depend on the configuration	
Material	316 / 316L stainless steel
Drawing	440-XXXX-00
Options	
Heater	Self-limiting heater, 120 V or 220 V, 100 -500 W. T4 temperature class
Temperature Sensor	PT100 typical with transmitter for 4-20 mA output
Shaft encoder	Most commercially available shaft encoders can be integrated
Connectors	Cable entry can be by flameproof connectors
Current Transducers	Current transducers can be supplied for remote monitoring of current
Data Monitoring	Model 490 Data Acquisition System
Extended Ratings	Custom certification for higher voltages and currents, different enclosure sizes

All specifications and information are subject to change without notice. Please contact Focal for the latest updates.

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