

NU-TORQUE

Designed to meet the requirements of the MIL-Spec DOD-V-24657 (SH) and the marine environment

Introduction

The Nu-Torque MS05 Series actuators are a reduced size unit designed to meet the requirements of the MIL-Spec DOD-V-24657 (SH) and the marine environment. Cast silicon bronze housings, bronze and steel gears, shafts and hardware resist marine corrosion and are also the ideal choice for applications requiring low magnetic components. Motors are built to IEEE-45, MIL-M-17059 or MIL-M-17060 to provide extended life under the most severe shipboard conditions.

The MS05 Series actuators are more compact and durable reducing the stress on smaller valves where Navy High Shock and Vibration qualification is required.

The MS05 Series actuator can be supplied for Quarter-Turn and Multi-Turn applications.

Features

- Up to 6 position limit devices, individually adjustable
- OPEN and CLOSE torque limit devices
- Differential drive, low effort handwheel
- Mechanical position indicator located near the handwheel and on top
- Mechanical stops for quarter-turn applications, adjustable from 85 to 95 degrees
- Integral reversing controller with valve logic
- Thermal sensors and monitor module

Optional Feature

- Local controls (pushbuttons and lights—local/remote switch)
- Non-intrusive control via USB interface
- LED digital display of status & diagnostics, non-intrusive
- Smart actuators—PROFIBUS, LonWorks®, ModBus® and DeviceNet™
- Right angle gearbox for limited overhead locations



Notes

1. LonWorks® is a registered trademark of the Echelon Corporation.
2. ModBus® is a registered trademark of Schneider Automation, Inc.
3. DeviceNet™ is a registered trademark of ODVA.

Nu-Torque Electric Valve Actuator MS05 Series

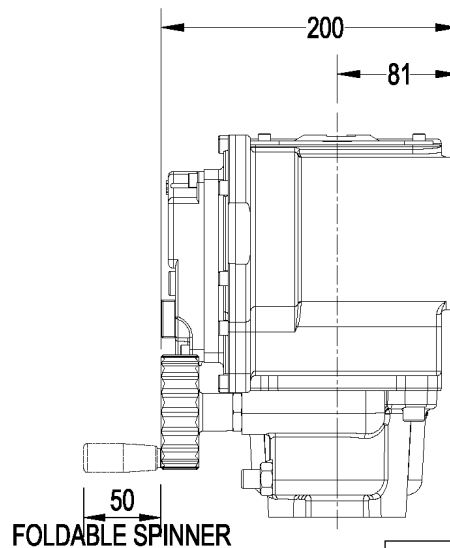
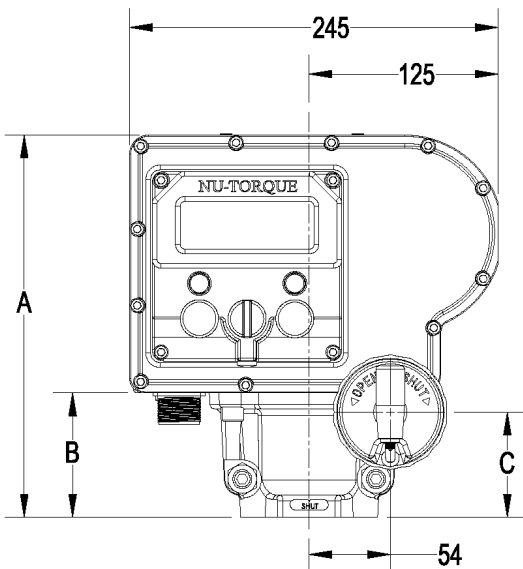
Actuator Specifications

Model No.: MS05Q
 Housing: Cast silicon bronze
 Hardware: Corrosion resistant
 Handwheel: 3" or 5" with spinner
 Magnetic permeability: Less than 2.0
 Switches: 250 VAC, 5 AMP
 Motor voltage: 115 VAC, single phase, 60 Hz
 440 VAC, 3 phase, 60 Hz
 Output torque: 100 - 10,000 in. lbs.
 Output speed 4 to 30 seconds
 90 degrees
 Weight: 41-47 lbs.

Model No.: MS05M
 Housing: Cast silicon bronze
 Hardware: Corrosion resistant
 Handwheel: 3" or 5" with spinner
 Magnetic permeability: Less than 2.0
 Switches: 250 VAC, 5 AMP
 Motor voltage: 115 VAC, single phase, 60 Hz
 440 VAC, 3 phase, 60 Hz
 Output torque: 50 - 500 in. lbs.
 Output speed 12 to 36 rpm
 Weight: 41-47 lbs.

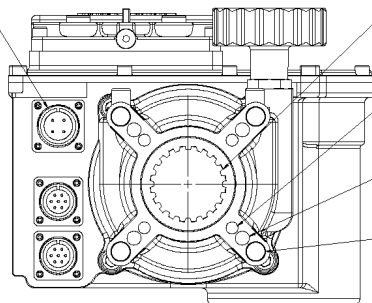
Certifications

Shock test: MIL-S-901D
 Vibration test: MIL-STD-167-1 LATER
 EMI: MIL-STD-461
 Fire: API-607
 Motor: MIL-M-17059
 MIL-M-17060
 IEEE-45



FOLDABLE SPINNER

SUBMERSIBLE CONNECTORS FOR POWER & CONTROL/COMM.



OUTPUT SHAFT INTERNAL SPLINE
48 PD X 38 DEEP

4X F07, M8 X 16 DEEP
ON A Ø70 B.C.

4X F10, M10 X 19 DEEP
ON A Ø102 B.C.

4X F12, M12 X 19 DEEP
ON A Ø125 B.C.
(45:1 ONLY)

15:1 AND 25:1 RATIO OUTPUTS SHOWN

| DIMENSION | | | |
|--------------|-----|-----|----|
| OUTPUT RATIO | A | B | C |
| 5:1 | 226 | 55 | 42 |
| 15:1 | 255 | 83 | 70 |
| 25:1 | 255 | 83 | 70 |
| 45:1 | 280 | 108 | 95 |

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Flow Control Company
NU-TORQUE

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