

Fisher™ easy-Drive™ 200L

The Fisher easy-Drive 200L is a compact, rugged electric actuator designed for throttling or on/off applications. The actuator can be controlled via Modbus RTU, 4-20mA, or dry contact signals. Set up and calibration is made with the Fisher easy-Drive configurator which provides one button calibration. The actuator is designed to provide dependable on-off or throttling operation of control valves.

Features

- **Low Temperature**— The easy-Drive 200L design allows use in ambient temperatures as low as -20°C (-4°F) without use of a heater.
- **Easy Installation**—The compact actuator design allows installation where space is a premium. Fisher easy-Drive calibrates by simply opening and closing the valve.
- **Application Flexibility**— Choice of control method including 4-20mA Positioning and 4-20mA Level along with configurable Loss of Signal Position and Deadband suits this actuator to many applications.
- **Low Power Consumption**— The Fisher easy-Drive 200L operates with 9 to 30VDC and less than 0.1 watt hours per operation, using Modbus, 4-20 mA, or dry contact control signals.



X1520-1

Fisher easy-Drive 200L

- **Optional Loss of Power Positioning**— With the reserve power unit, RPU-100, loss of power position is programmable over Modbus.
- **Remote Monitoring and Configuration**— Loss of signal position is programmable over Modbus.

Installation

Fisher easy-Drive 200L may be installed in any position, but normally the actuator is vertical above the valve.

Table 1. Specifications

<p>Material Temperature Capabilities⁽¹⁾ Electric Actuator Assembly: -20 to 70°C (-4 to 158°F)</p> <p>Available Actuator Configurations Positioning (flow or pressure control)</p> <p>Power Requirements 9-30VDC, minimum 4 amp power supply required (fuse to 5 amps)</p> <p>Maximum Current Draw 4 amps</p> <p>Idle Current Draw 15 mA at 24VDC 25 mA at 12VDC 30 mA at 24VDC, 50 mA at 12VDC with RPU-100</p> <p>Conduit Connections Two 3/4 NPT connections</p> <p>Maximum Stroke Length 19 mm (0.75 inch)</p> <p>Maximum Thrust Force 3336 N (750 lbf)</p> <p>Average Thrust Force 2446 N (550 lbf)</p> <p>Nominal Stroke Speed⁽²⁾ 3.9 mm/s (0.15 inch/s) at 24 VDC 2.2 mm/s (0.09 inch/s) at 12 VDC⁽³⁾</p>	<p>Control Signals On/Off: Dry contact, Modbus RTU Positioning: 4-20 mA, 4-20 mA level, Modbus RTU Auxiliary Digital Input: Dry contact Auxiliary Digital Output: 10VDC, 25 mA maximum</p> <p>Hazardous Area Approvals CSA (C/US): Explosion-Proof Class I, Division 1, Groups C and D, T6, Ex d IIA T6, Class I, Zone 1, AEx d IIA T6 ATEX Flameproof - Gas: ⊕ II 2 G, Ex db IIA T6 IECEx Flameproof - Gas: Ex db IIA T6</p> <p>Enclosure Rating Type 4X and IP66</p> <p>Electromagnetic Compatibility Meets EN 61326-1 (2013) Immunity: Industrial locations per table 2 of EN 61326-1 Standard. Performance is shown in table 2 Emissions: Class A ISM Equipment Rating: Group 1, Class A</p> <p>Optional Loss of Power Positioning With the reserve power unit, RPU-100, loss of power positioning is programmable over Modbus.</p> <p>Duty Cycle 50% maximum</p> <p>Enclosure Material Cast aluminum alloy with powder coat paint</p> <p>Approximate Weight: 9.5 kg (21 lbs) 10 kg (22 lbs) with RPU-100</p>
--	---

1. The pressure or temperature limits in the referenced tables and any applicable ASME code limitations should not be exceeded.
2. 10% variation can be expected, based on temperature and pressure of application.
3. Stroke speed when RPU-100 is providing power.

Table 1. Hazardous Area Classifications - CSA (Canada and United States)

CERTIFICATION BODY	CERTIFICATION OBTAINED	ENTITY RATING	TEMPERATURE CODE	CONDUIT CONNECTIONS	ENCLOSURE RATING
CSA	Class I, Division 1, GP C, D T6	---	T6 (Tamb ≤ 70°C)	Two 3/4 NPT Connections	CSA Type 4X Enclosure

Table 2. EMC Summary Results - Immunity

PORT	PHENOMENON	BASIC STANDARD	TEST LEVEL	PERFORMANCE CRITERIA ⁽¹⁾
Enclosure	Electrostatic discharge (ESD)	IEC 61000-4-2	4kV Contact 8kV Air	A
	Radiated EM field	IEC 61000-4-3	80 to 1000 MHz @ 10V/m 1kHz AM at 80% 1400 to 2000 MHz @ 3V/m 1kHz AM at 80% 2000 to 2700 MHz @ 1V/m 1kHz AM at 80%	A
	Rated power frequency magnetic field	IEC 61000-4-8	30 A/m @ 50 and 60 Hz	A
I/O signal/ control	Burst	IEC 61000-4-4	1kV	B
	Surge	IEC 61000-4-5	1kV cable shield, and line to ground	B
	Conducted RF	IEC 61000-4-6	3V 150 kHz to 80 MHz at 3 Vrms	A

Performance criteria is +/- 5% stem position
1. A= No degradation during testing. B = Temporary degradation during testing, but is self recovering.

easy-Drive RPU-100

Designed for use in Fisher easy-Drive actuators, the RPU-100 provides energy for positioning the actuator to the user-defined location on loss of incoming power.

Figure 1. Fisher RPU-100 with Wiring Harness



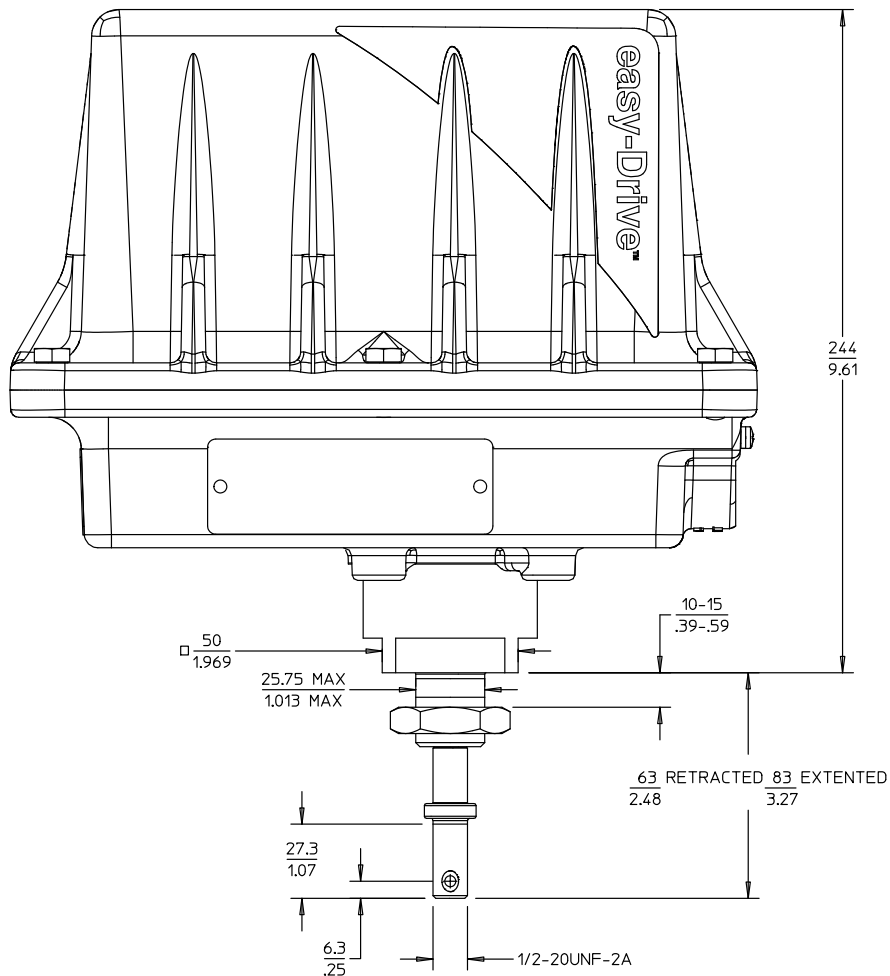
X1718

Figure 2. Fisher easy-Drive Actuator with RPU-100



X1717

Figure 3. Fisher easy-Drive 200L Electric Actuator



GE94736

Neither Emerson, Emerson Automation Solutions, nor any of their affiliated entities assumes responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use, and maintenance of any product remains solely with the purchaser and end user.

Fisher and easy-Drive are marks owned by one of the companies in the Emerson Automation Solutions business unit of Emerson Electric Co. Emerson Automation Solutions, Emerson, and the Emerson logo are trademarks and service marks of Emerson Electric Co. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available upon request. We reserve the right to modify or improve the designs or specifications of such products at any time without notice.

Emerson Automation Solutions
 Marshalltown, Iowa 50158 USA
 Sorocaba, 18087 Brazil
 Cernay, 68700 France
 Dubai, United Arab Emirates
 Singapore 128461 Singapore

www.Fisher.com

