



Limitorque® MXw Smart Weather-Proof Electric Actuator



Experience In Motion

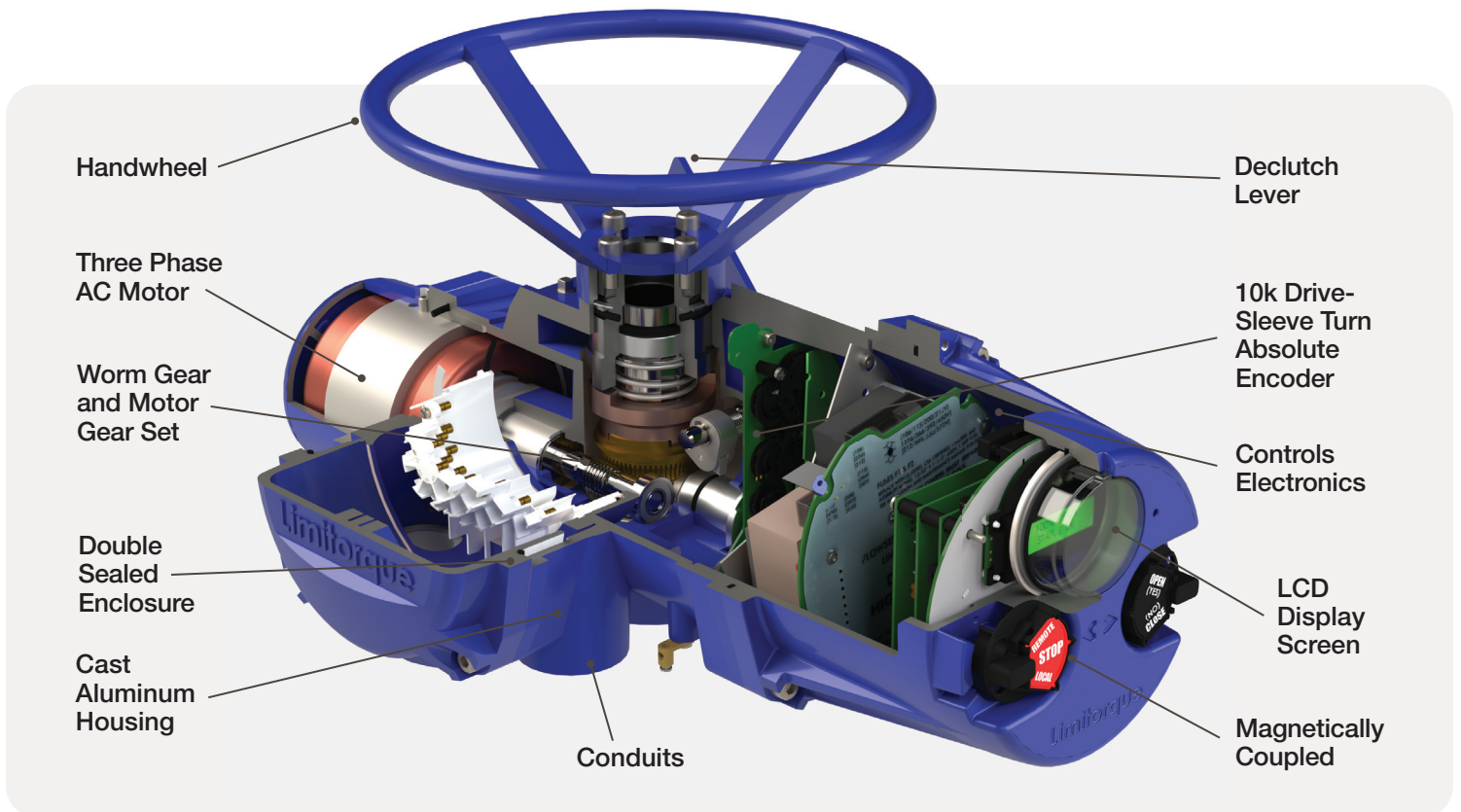
Product Overview

The Limitorque MXw electric actuator delivers dependable performance in demanding outdoor and weather-exposed environments. Built with a rugged, double-sealed enclosure, it offers superior protection against moisture, dust, and temperature extremes. With enclosure ratings up to IP68 and NEMA 4/4X/6, the MXw is designed to thrive in water treatment facilities, coastal installations, and remote field operations. Advanced torque control and precise position feedback ensure consistent valve performance under harsh environmental conditions. As a leader in actuation for over 80 years, Limitorque's MXw continues its history of providing long-term reliability where environmental protection and controls are critical.

Product Features

Standard

- Electronic Torque Sensing
- Autophase Protection and Correction
- Instantaneous reversal protection
- Two configurable latching Status relays (2A)
- N/O or N/C Monitor Relay (2A)
- Remote Control Digital Inputs for Open/Stop/Close
- Configurable Digital Inputs for Inhibit, User Inputs, or ESD (3)
- Multi-Mode Control
- Motor Thermal Overload Protection
- Permanently Lubricated
- IP68 Rated 15m 96Hr
- Limigard



Product Options

Selection	Description
Additional Status Relays	Up to 8 total latching status relays rated 250 VAC/30 VDC @ 5 A
Two-Speed Timer	A two-speed pulsing timer may be incorporated to support variable stroke times as configured by the user
Analog Output	0-20 mA, 4-20 mA, 0-5 V, 0-10 V, 1-5 V signals can be configured for position or torque feedback.
Modulating	4-20 mA or 0-20 mA input for modulating control
Solid State Motor Reverser (SSMR)	SSMR is available for up to 1,200 starts/hour applications.
Network Controls	Networks available for remote control: Modbus, Modbus TCP/IP, Profibus DP, Profibus PA, ProfiNet, Foundation Fieldbus, HART, DeviceNet, EtherNet/IP
Uninterrupted Power Supply (UPS)	UPS is a 24-volt DC connection for either early commissioning prior to main power or actuator status and feedback in the event main power is lost.
Bluetooth	Standard low power wireless communication path to the actuator enables monitoring and configuration of the unit up to 10 m in any direction.
C4/C5	Optional LPS-124 paint system for corrosive environments
Certifications	American Water Works Association (AWWA) compliant
Languages	English, Spanish, French, German, Italian, Portuguese, Russian, Malay, Mandarin, Katakana, Turkish

Motor voltages

The MXw actuator motors permit a global range of voltages. They can be built to operate at any one of the following voltages:

Product	Phase/frequency	Application voltage
MXw	Three-phase, 60 Hz	208, 220, 230, 240, 380, 400, 440, 460, 480, 575
	Three-phase, 50 Hz	380, 400, 415, 440, 480
	Single-phase	100-240

Couplings

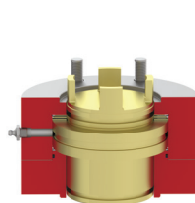
MXw

Thrust drive couplings

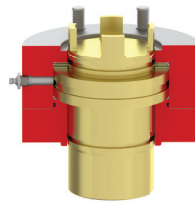
- **Type A1** – Alloy bronze (thrust)
- **Type A1E** – Extended bronze nut

Torque-only drive couplings

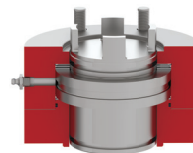
- **Type B4** – Standard steel bushing
- **Type B4E** – Extended steel bushing
- **Type B1** – Large fixed-bore keyway steel bushing (ISO 5210)
- **Type BL** – Splined steel bushing for rising rotating stem valves



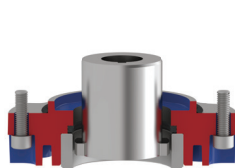
Type A1



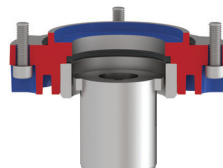
Type A1E



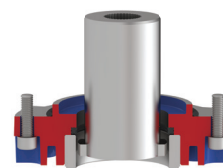
Type B1



Type B4



Type B4E



Type BL

Applications for Smart Actuators

Compatible with broad range of valves

Limatorque MXw multi-turn actuators accommodate today's wide variety of valve designs and configurations and meet international standards for valve and actuator interfaces, including ISO 5210 and MSS SP-102. MXw mounting options MXw actuators are available in a wide variety of configurations to accommodate all rotary and linear valve applications:

- **Direct mounting:** Directly coupled with valves for torque-only applications. For thrust applications, MXw actuators use a separate thrust base.
- **MXw with worm gearbox:** Coupled to a worm gear reducer (such as Limatorque WG or HBC models) for operation of part-turn valves, such as butterfly, ball, plug and damper. This combination provides an output torque capacity of up to 184,280 Nm (136,000 ft-lb).
- **MX with bevel or spur gearbox:** Rising stem valves coupled to a variety of bevel gear and spur gear reducers (such as Limatorque, V or SR models). Thrust up to 1,445 kN (325,000 lb) and torque up to 16,320 Nm (12,000 ft-lb) can be accommodated.

Learn about Limatorque gearboxes at <https://www.flowserve.com/gearboxes>.

MXw Series Performance Ratings

Rated output torque by speed and model

Output speed, rpm		Rated output torque, Nm (ft-lb)						
60 Hz	50 Hz	MXw-05	MXw-10	MXw-20	MXw-40	MXw-85	MXw-140	MXw-150
18	15	75 (55)	170 (125)	N/A	N/A	N/A	N/A	N/A
26	22	75 (55)	170 (125)	305 (225)	597 (440)	1,153 (850)	2,036 (1,500)	N/A
40	33	75 (55)	170 (125)	305 (225)	597 (440)	1,662 (1,225)	2,307 (1,700)	N/A
52	43	75 (55)	170 (125)	305 (225)	597 (440)	1,561 (1,150)	2,171 (1,600)	N/A
77	65	65 (48)	145 (107)	241 (178)	468 (345)	1,153 (850)	1,628 (1,200)	N/A
100, 131 ⁽¹⁾	84, 110 ⁽¹⁾	53 (39)	121 (89)	201 (148)	388 (286)	814 (600)	1,106 (815)	2,036 (1,500)
155, 170 ⁽¹⁾	127, 143 ⁽¹⁾	56 (41)	121 (89)	190 (140)	353 (260)	611 (450)	882 (650)	1,561 (1,150)
200	165	46 (34)	99 (73)	155 (114)	285 (210)	N/A	N/A	N/A

(1) MXw-85, MXw-140 and MXw-150

Mounting bases and thrust ratings by model

Parameter	MXw-05	MXw-10	MXw-20	MXw-40	MXw-85	MXw-140	MXw-150
Mounting base (MSS SP-102/ISO 5210)	FA/F10	FA/F10	FA/F14	FA/F14	FA/F16 FA/F25 (optional)	FA/F25	FA/F25
Thrust, kN (lb)	35 (8,000)	66 (15,000)	111 (25,000)	160 (36,000)	222 (50,000)	333 (75,000)	333 (75,000)

Handwheel data by model

Parameter		MXw-05	MXw-10	MXw-20	MXw-40	MXw-85	MXw-140	MXw-150
Handwheel type, ratio	Standard	Top-mounted, 1:1	Top-mounted, 1:1	Top-mounted, 1:1	Top-mounted, 1:1	Side-mounted, 16:1	Side-mounted, 16:1	Side-mounted, 16:1
	Optional	N/A	Side-mounted, 8:1	Side-mounted, 12:1	Side-mounted, 24:1	Side-mounted, 48:1	Side-mounted, 48:1	Side-mounted, 48:1
Side-mounted handwheel efficiencies	Standard	N/A	N/A	N/A	N/A	53%	53%	53%
	Optional	N/A	56%	60%	55%	51%	51%	51%

Stem diameter capacity by coupling and model

Coupling type		Maximum stem diameter, mm (in.)						
		MXw-05	MXw-10	MXw-20	MXw-40	MXw-85	MXw-140	MXw-150
Type A	A1/A1E (extended nut)	32 (1.26)	40 (1.57)	60 (2.36)	67 (2.64)	88 (3.50)	88 (3.50)	88 (3.50)
Type B (torque only) ⁽²⁾	B4	25.4 (1)	30 (1.25)	50 (1.94)	55 (2.2)	70 (2.75)	65 (2.625)	65 (2.625)
	B4E (extended nut)	19 (0.75)	22 (0.91)	41 (1.56)	46 (1.78)	57 (2.25)	57 (2.25)	65 (2.625)
	B1 (fixed bore)	42 (N/A)	42 (N/A)	60 (N/A)	60 (N/A)	N/A (N/A)	N/A (N/A)	N/A (N/A)
	BL (splined)	6 and 38 splines	6 and 38 splines	6 and 36 splines	6 splines	N/A	N/A	N/A

(2) Maximum bores for Type B may require rectangular keys.

Bore and keyway dimensions by coupling type

Dimension	MXw-05	MXw-10	MXw-20	MXw-40	MXw-85	MXw-140	MXw-150
B4 maximum bore and key, mm (in.)	Ø25.4, 8 X 7 (Ø1, 1/4 sq)	Ø30, 10 X 8 (Ø1.25, 1/4 sq)	Ø50, 14 X 9 (Ø1.94, 1/2 X 3/8)	Ø55, 16 X 10 (Ø2.2, 1/2 X 3/8)	Ø70, 20 x 12 (Ø2.75, 5/8 x 7/16)	Ø65, 18 x 11 (Ø2.625, 5/8 x 7/16)	Ø65, 18 X 11 (Ø2.625, 5/8 X 7/16)
B4E maximum bore and key, mm (in.)	Ø18, 6 X 6 (Ø0.75, 3/16 sq)	Ø22, 8 X 7 (Ø0.91, 1/4 sq)	Ø41, 12 X 8 (Ø1.56, 3/8 sq)	Ø46, 14 X 9 (Ø1.78, 1/2 X 3/8)	Ø56, 16 X 10 (Ø2.25, 1/2 X 3/8)	Ø56, 16 X 10 (Ø2.25, 1/2 X 3/8)	Ø56, 16 X 10 (Ø2.25, 1/2 x 3/8)

Weights by base

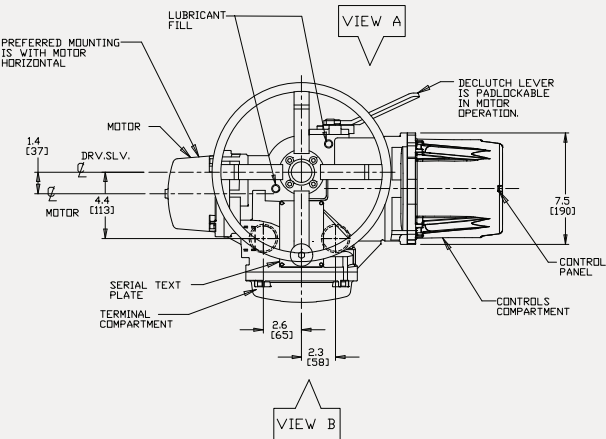
Base type	Weight, kg (lb)						
	MXw-05	MXw-10	MXw-20	MXw-40	MXw-85	MXw-140	MXw-150
MXw + B4 base (torque only)	24 (52)	29 (65)	49 (109)	60 (133)	114 (250)	136 (300)	182 (431)
MXw + A1 base (thrust only)	28 (61)	33 (74)	63 (138)	73 (162)	146 (322) ⁽³⁾	186 (411) ⁽⁴⁾	232 (542) ⁽⁴⁾

(3) MXw-85 with FA/F16 base (4) MXw-140 or MXb-150 with FA/F25 base

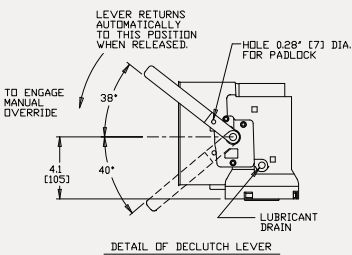
Outline Dimensions

MX-05

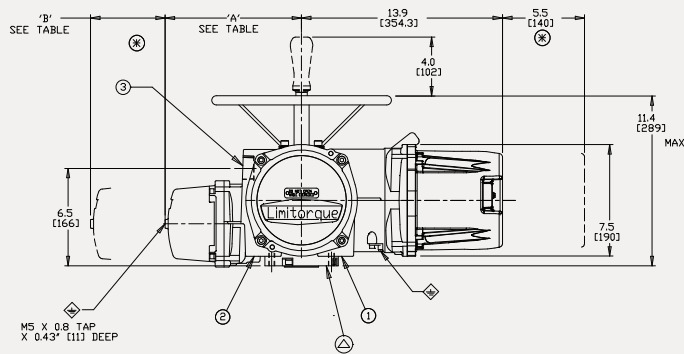
TOP VIEW



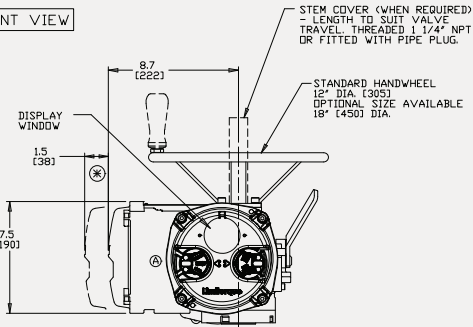
VIEW A



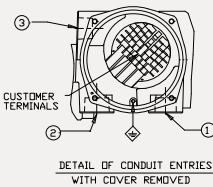
SIDE VIEW



FRONT VIEW



VIEW B



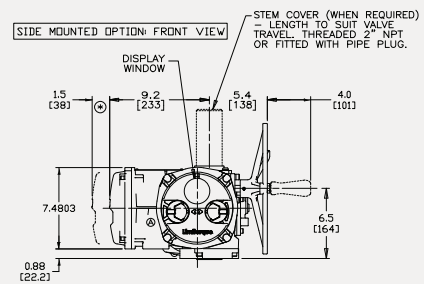
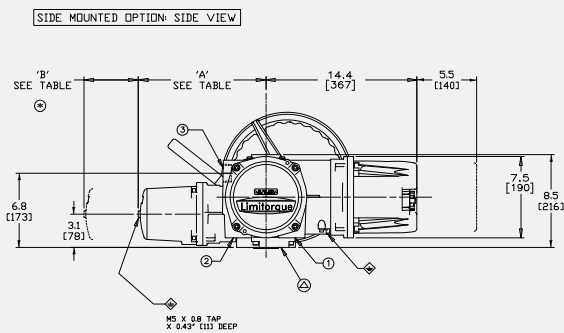
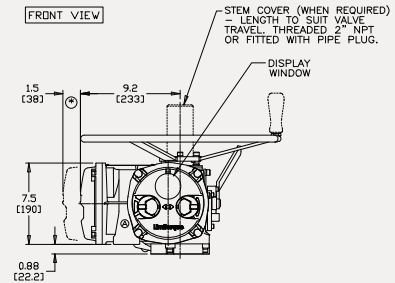
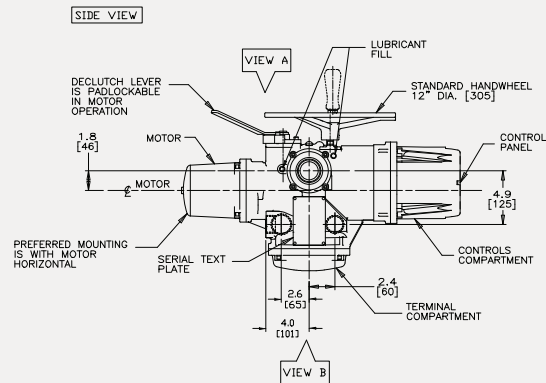
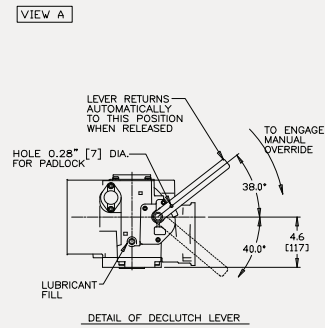
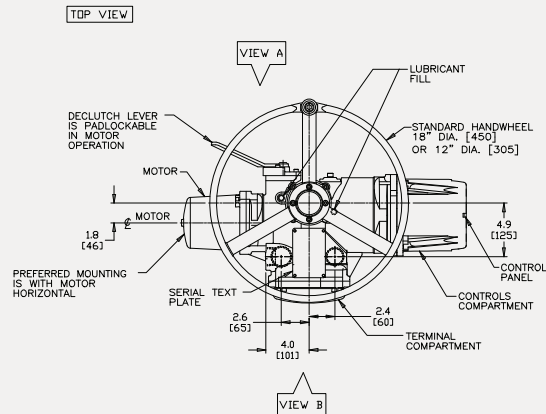
CONDUIT ENTRIES			
POSITION	①	②	③
STANDARD	1 1/4" NPT	1 1/2" NPT	1 1/4" NPT
OPTIONS	M32, M25 M20, M40, M16	M32, M25 M20, M40, M16	M32, M25 M20, M40, M16
	PG16, PG21	PG16, PG21	PG16, PG21

- ◆ GROUND/EARTHING LUG
- ⊗ RECOMMENDED CLEARANCE FOR COVER REMOVAL
- ⊙ MOUNTING FACE FOR ATTACHING TO VALVE FLANGE

	1 PHASE	3 PHASE
DIM 'A'	11.5 [292]	9.1 [232]
DIM 'B'	4.0 [102]	5.0 [127]

Outline Dimensions

MX-10



CONDUIT ENTRIES			
POSITION	①	②	③
STANDARD	1 1/4" NPT	1 1/2" NPT	1 1/4" NPT
OPTIONS	M32, M25 M20	M40, M32, M25, M20	M32, M25 M20
	PG21	PG29, PG21	PG21

- ◆ GROUND/EARTHING LUG
- ① RECOMMENDED CLEARANCE FOR COVER REMOVAL
- ② MOUNTING FACE FOR ATTACHING TO VALVE FLANGE

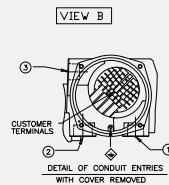
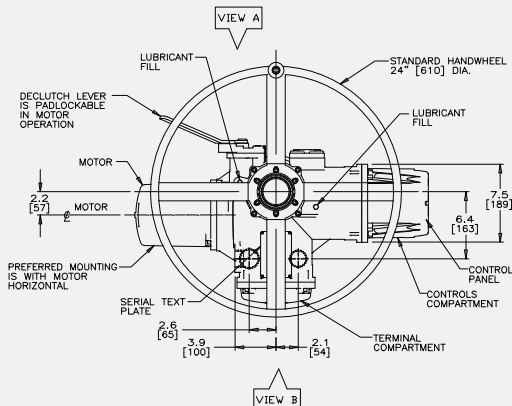


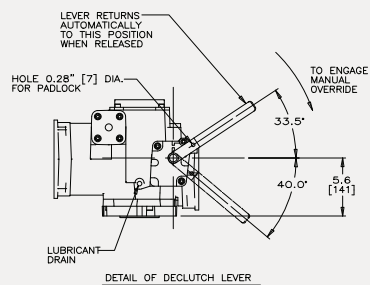
	TABLE	
	1 PHASE	3 PHASE
DIM 'A'	14.7 [374]	11.7 [297]
DIM 'B'	4.0 [102]	5.0 [127]

MX-20

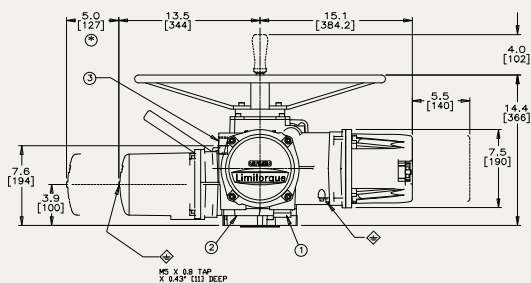
TOP VIEW



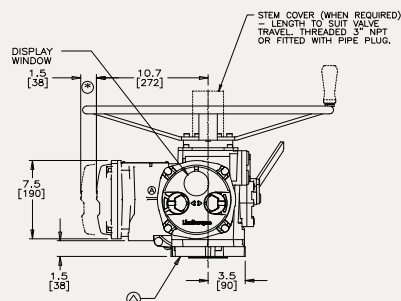
VIEW A



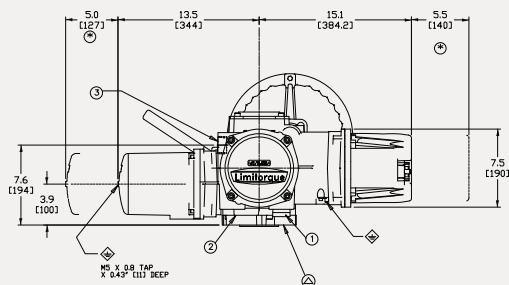
SIDE VIEW



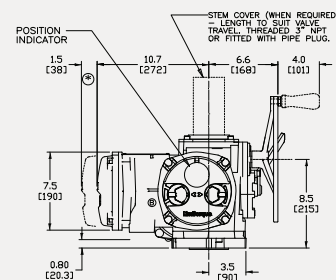
FRONT VIEW



SIDE MOUNTED OPTION: SIDE VIEW

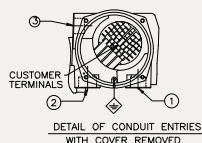


SIDE MOUNTED OPTION: FRONT VIEW



CONDUIT ENTRIES			
POSITION	①	②	③
STANDARD	1 1/4" NPT	1 1/2" NPT	1 1/4" NPT
OPTIONS	M32, M25 M20	M40, M32, M25, M20	M32, M25 M20
	PG21	PG29, PG21	PG21

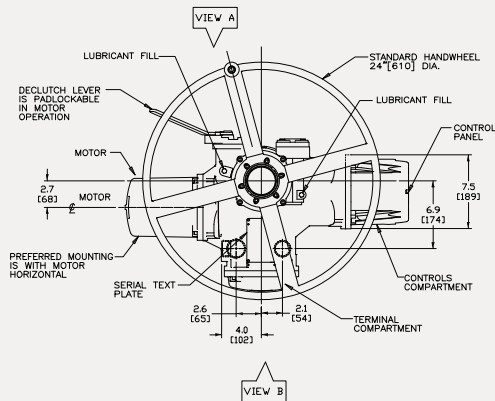
- ◆ GROUND/EARTHING LUG
- ⊛ RECOMMENDED CLEARANCE FOR COVER REMOVAL
- ⊠ MOUNTING FACE FOR ATTACHING TO VALVE FLANGE



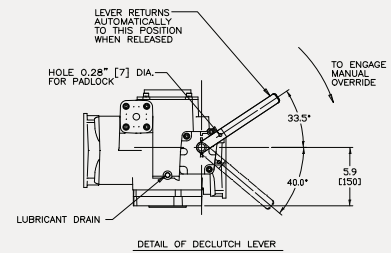
Outline Dimensions

MX-40

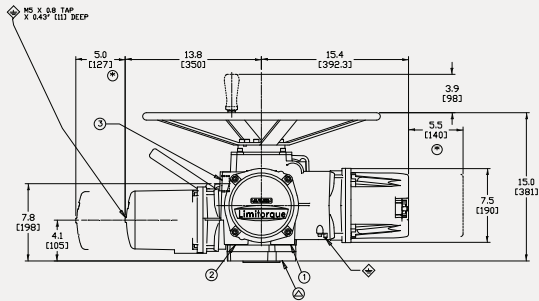
TOP VIEW



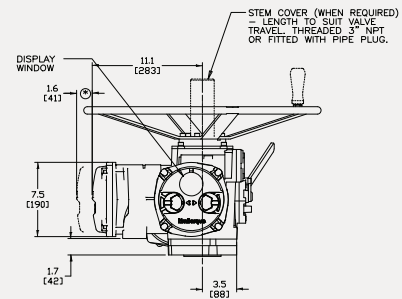
VIEW A



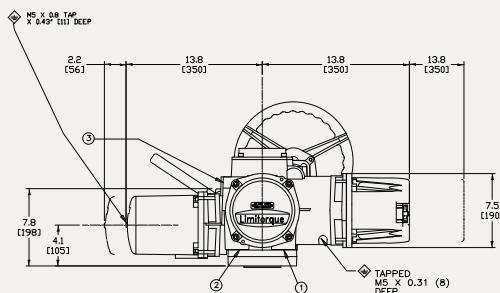
SIDE VIEW



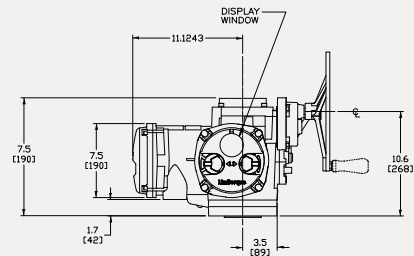
FRONT VIEW



SIDE MOUNTED OPTION: SIDE VIEW

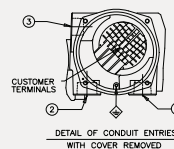


SIDE MOUNTED OPTION: FRONT VIEW



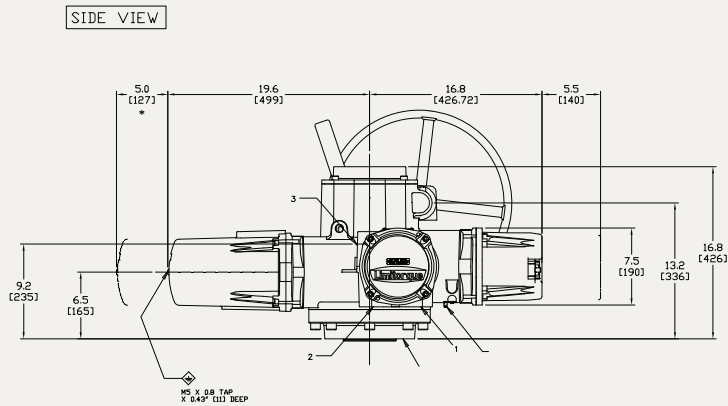
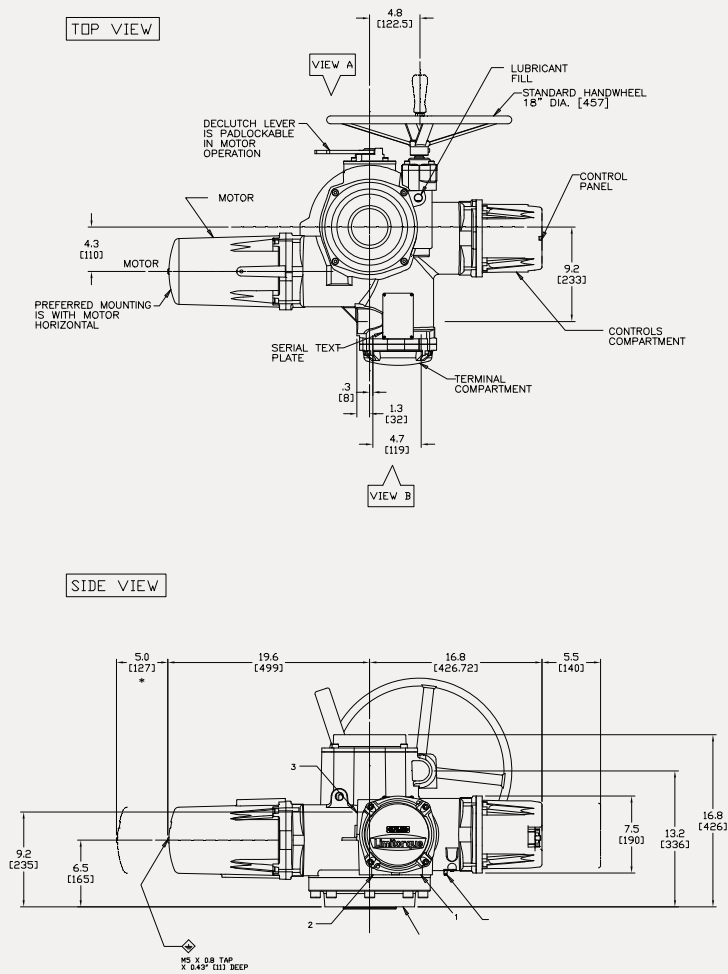
POSITION	CONDUIT ENTRIES		
	①	②	③
STANDARD	1 1/4" NPT	1 1/2" NPT	1 1/4" NPT
OPTIONS	M32, M25, M20	M40, M32, M25, M20	M32, M25, M20
	PQ21	PQ29, PQ21	PQ21

- ⬢ GROUND/EARTHING LUG
- ⊙ RECOMMENDED CLEARANCE FOR COVER REMOVAL
- Ⓜ MOUNTING FACE FOR ATTACHING TO VALVE FLANGE

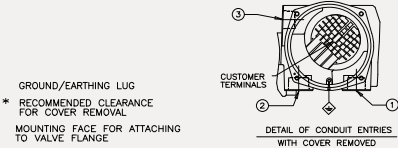
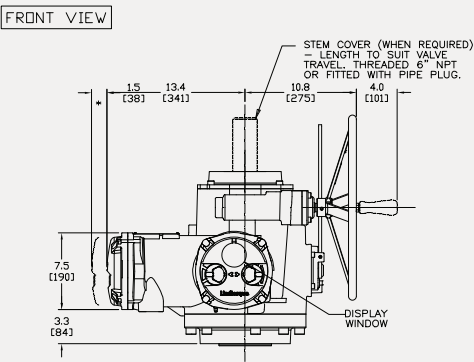
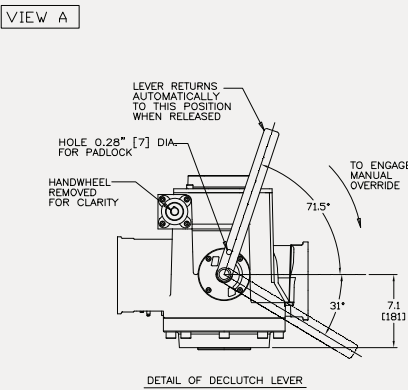


Outline Dimensions

MX-85

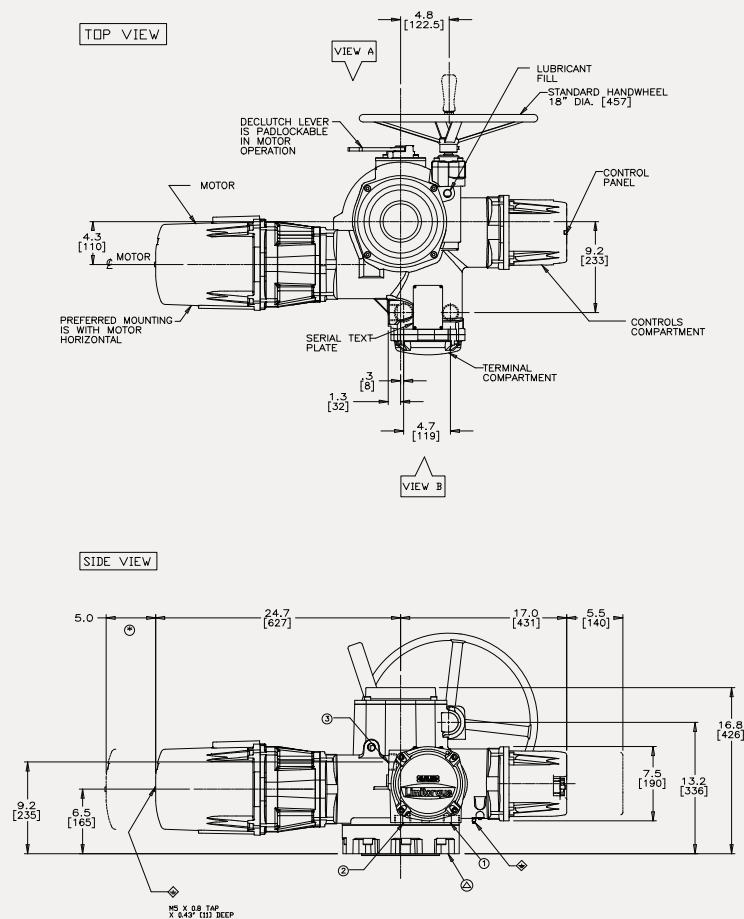


CONDUIT ENTRIES			
POSITION	①	②	③
STANDARD	1 1/4" NPT	1 1/2" NPT	1 1/4" NPT
OPTIONS	M32, M25, M20	M40, M32, M25, M20	M32, M25, M20
	PG21	PG29, PG21	PG21

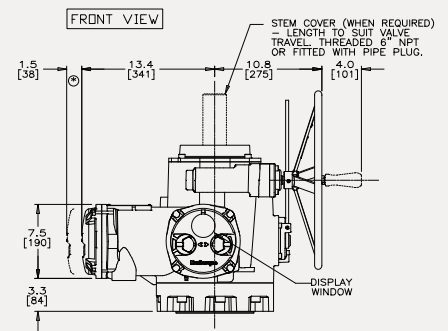
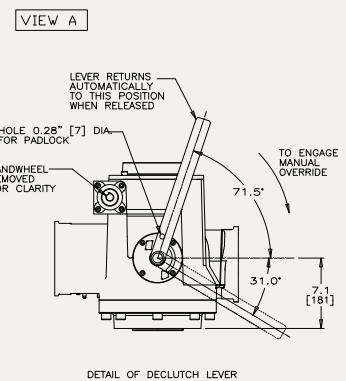


Outline Dimensions

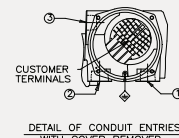
MX-140



POSITION	CONDUIT ENTRIES		
	①	②	③
STANDARD	1 1/4" NPT	1 1/2" NPT	1 1/4" NPT
OPTIONS	M32, M25 M20	M40, M32, M25, M20	M32, M25 M20
	PG21	PG29, PG21	PG21

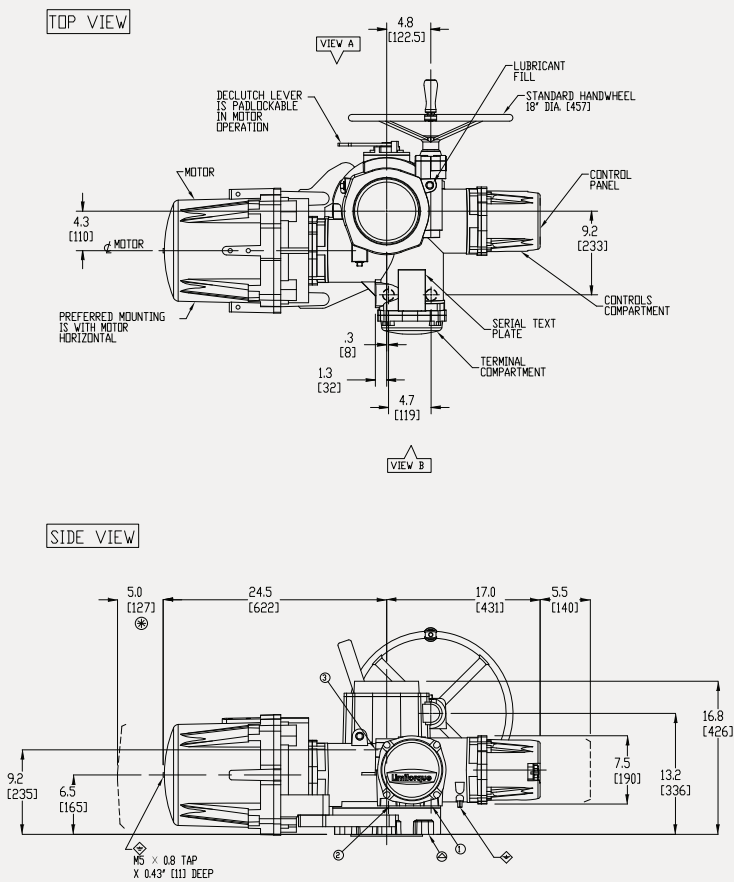


- ◆ GROUND/EARTHING LUG
- ⊕ RECOMMENDED CLEARANCE FOR COVER REMOVAL
- ⊗ MOUNTING FACE FOR ATTACHING TO VALVE FLANGE

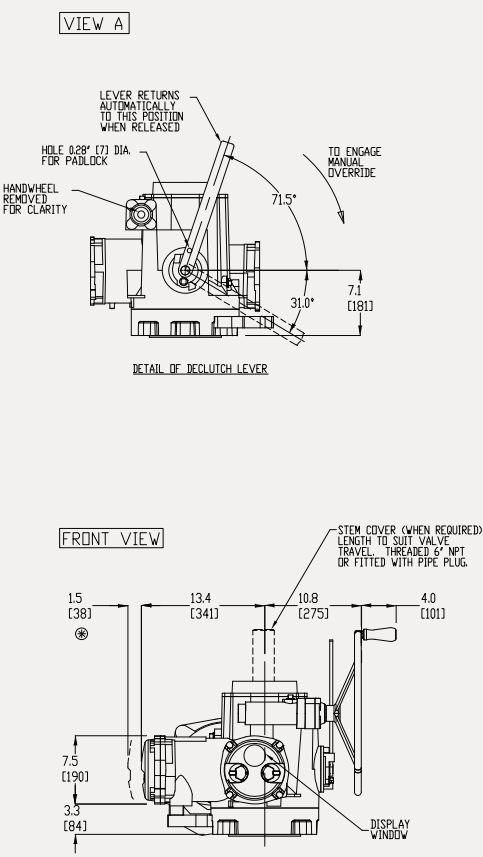


Outline Dimensions

MX-150



CONDUIT ENTRIES			
POSITION	①	②	③
STANDARD	1 1/4" NPT	1 1/2" NPT	1 1/4" NPT
OPTIONS	M32, M25, M20	M40, M32, M25, M20	M32, M25, M20
	PG21	PG29, PG21	PG21





Flowserve Corporation
5215 North O'Connor Blvd.
Suite 700
Irving, Texas 75039-5421 USA

AIBR003309 (EN/LTR) March 2026

Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of Flowserve products. The purchaser/user should read and understand the Installation Instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only and should not be considered certified or as a guarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or guarantee, express or implied, regarding any matter with respect to this product. Because Flowserve is continually improving and upgrading its product design, the specifications, dimensions and information contained herein are subject to change without notice. Should any question arise concerning these provisions, the purchaser/user should contact Flowserve Corporation at any one of its worldwide operations or offices.

©2026 Flowserve Corporation. All rights reserved. This document contains registered and unregistered trademarks of Flowserve Corporation. Other company, product, or service names may be trademarks or service marks of their respective companies.