



Electric Actuators

WE Series Weatherproof
CSA Approved TYPE 4 & 4X
350-80,000 In.-lbs. torque

XE Series Explosion Proof
ATEX Certified E Ex d IIB T4
690-25,900 In.-lbs. torque

AWWA
C540-93



WE-350

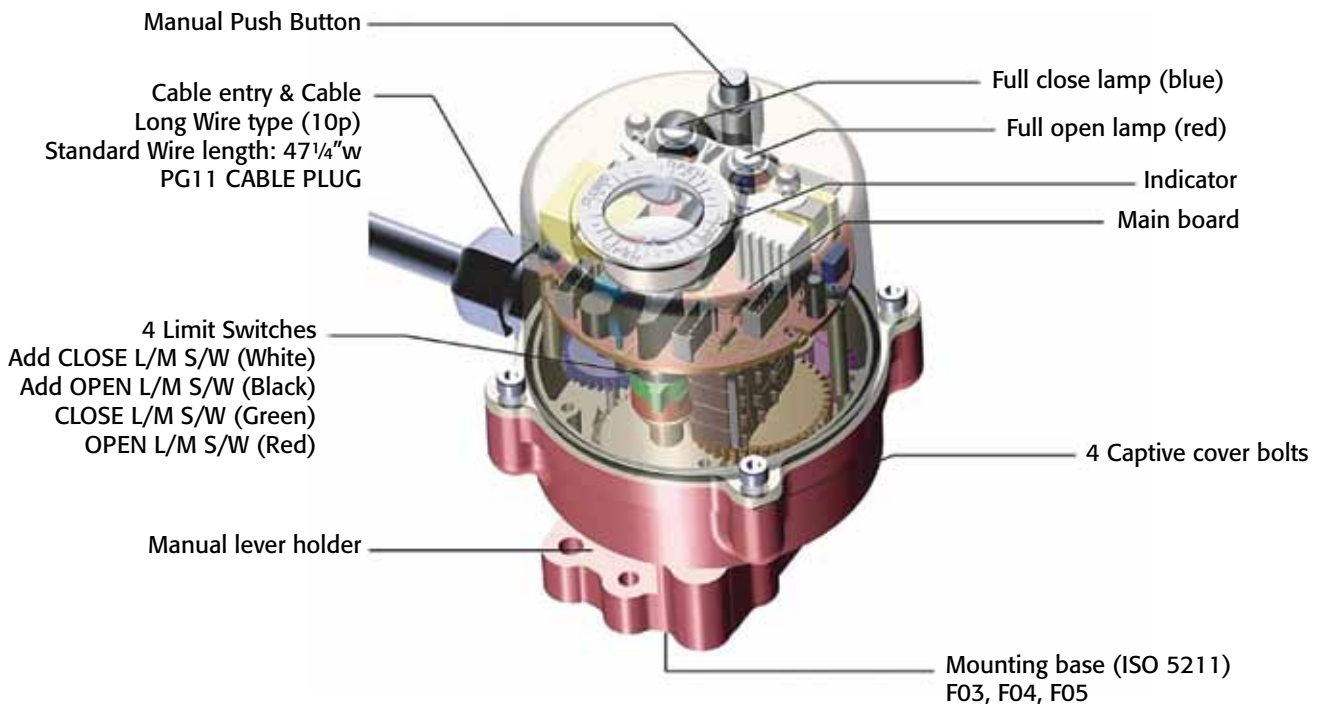
The WE-350 Electric Actuator is specifically designed to operate small size ball valves (1" and less), dampers and other quarter-turn devices.

Features

- Compact and light weight
- High resistance to corrosion due to hard anodizing on inside and outside with polyester powder coating on external surface
- Multi-voltage (AC85-265V/1PH, 24VDC)
- Standard space heater (0.5W)
- Weather proof (IP67)
- Push Button and Manual lever
- Wide, easy mounting base standard to ISO5211 (F03/F04/F05)
- Standard four limit switches
- Captive cover bolts
- Mechanical position indicator & LED lamp indicators (Open/Close)



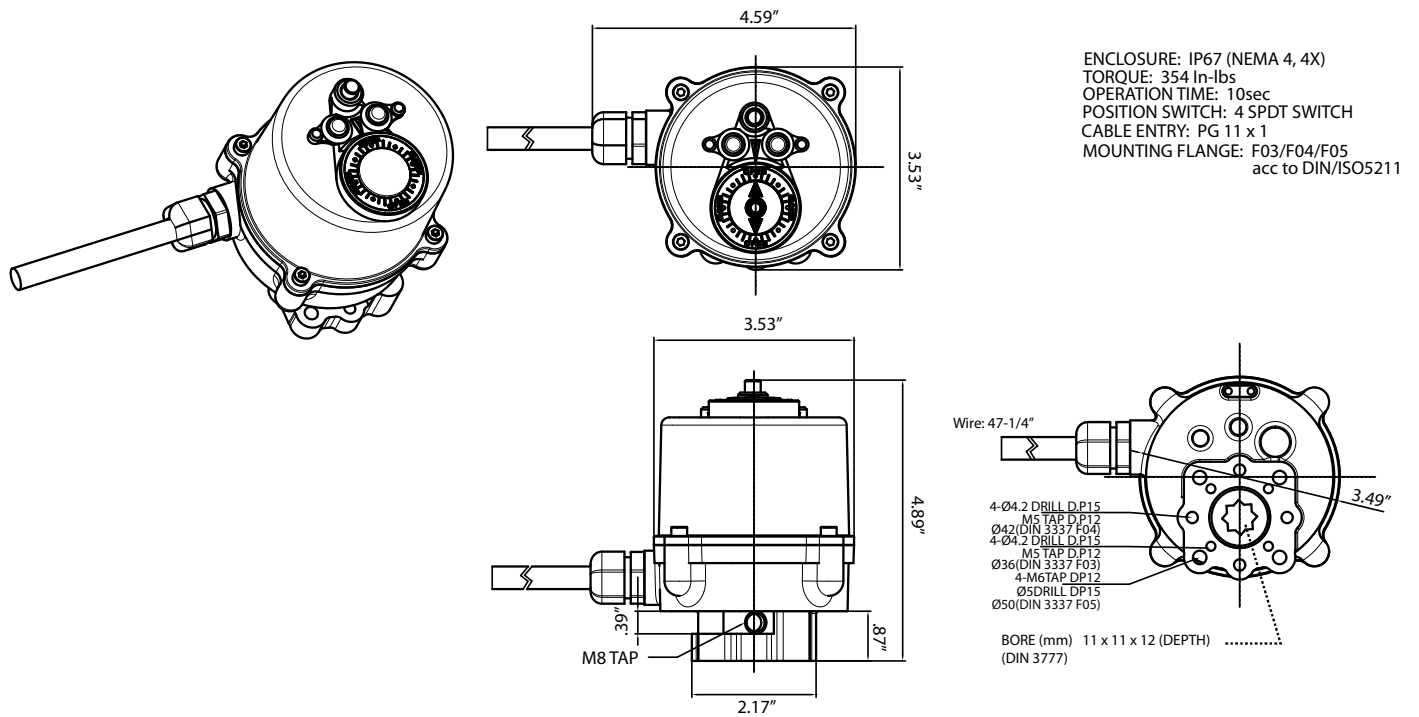
Construction



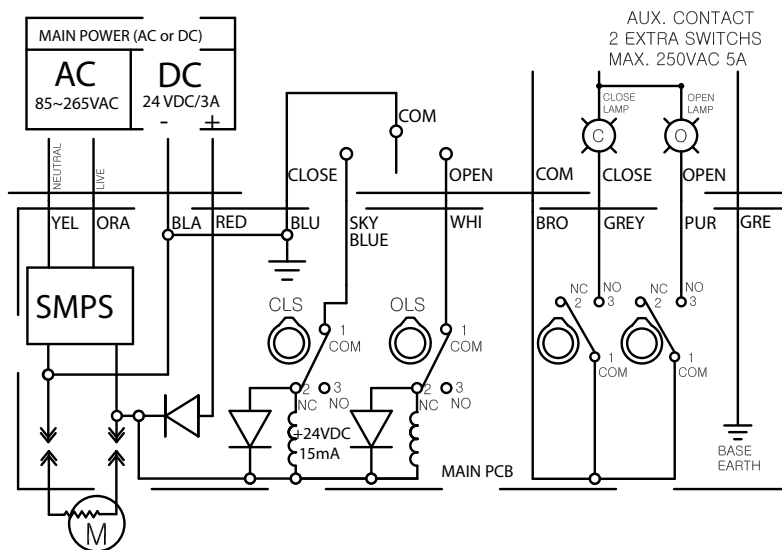
Performance

Type (Model)	Maximum Output Torque	Operating Time 60/50 Hz	Mounting Size	Electric Motor Stop	Suppling Power & Rating Current (A) 60/50Hz, 1 Phase			Duty Cycle IEC34-1	Manual Level Angle	Weight Lbs.
	In-Lbs.	90°			110VAC	220VAC	24VDC			
WE-350	354	12 sec.	F03, F04, F05	A	.12	.06	.46	50%	90°	2.65
WE-350HS	270	6.5 sec.	F03, F04, F05	2A	.065	.033	.25			

Dimensions



Wiring Connection



WE-500

The WE-500 Electric Actuator is an extremely rugged design actuator used for small ball valves (2" and less), dampers and other quarter-turn devices. The actuator is TYPE 4, 4X and includes a visual indicator, two auxiliary switches and a compartment heater. A convenient wrench manual override shaft is standard on the WE-500. This actuator is the clear choice when a compact, efficient electric actuator is required!

Features

- Compact and light due to high grade aluminum alloy housing.
- High resistance to corrosion due to hard anodizing on inside and outside with polyester powder coating on external surface
- Output torque: 530 In-lbs.
- The actuator motor is a reversible, high torque and low current design.
- Weatherproof (IP67, NEMA 4, 4X)



Standard Configuration

- Manual override
- Wide, easy mounting base standard to ISO5211 (F03/F05/F07)
- Standard four limit switches. Two for operation, 2 auxiliary dry contacts
- Captive cover bolts
- Space heater
- Limit switches for tight, easy setting
- Terminal block (11P)
- Standard color : Red



Optional Configuration

Position Indication Unit (Potentiometer kit, PIU)

High resolution potentiometer with precisely machined gearing directly engaged with drive shaft provides continuous monitoring of position of valve and actuator.



TMC3 Electronic Modulating Card

- Auto Calibration for Easy Setup
- 10 Bit Microprocessor controller for precise positioning and control
- 4-20mA, 1-5mA, 0-10 VDC, 1-5 VDC, 0-135 Ohm or Command Signal Potentiometer
- TMC3 can be programmed to Fail in Place, Fail CW, or Fail CCW on loss of command signal
- Characterized Control options: Linear, Quick Opening (Square Root), or Equal Percentage (Square)
- OnBoard 4-20 mA transmitter (optional)



AC/DC 24V Control Unit Dip Switch

Mode	1	2
DC	ON	OFF
AC	OFF	ON



Performance

Type (Model)	Maximum Output Torque	Operating Time 60/50 Hz	Mounting Size	Full Load Amps			Locked Rotor Amps			Duty Cycle	Number of Handle Turns	Weight
				AC 1PH. 50/60Hz	AC/DC		AC 1PH. 50/60Hz	AC/DC				
	In-Lbs.	90°	ISO5211	110V	220V	24V	110V	220V	24V	S2	N	Lbs.
WE-500	530	12/14	F03/F05/F07	0.4	0.2	0.8	0.5	0.25	2.5	70%	8	6.61

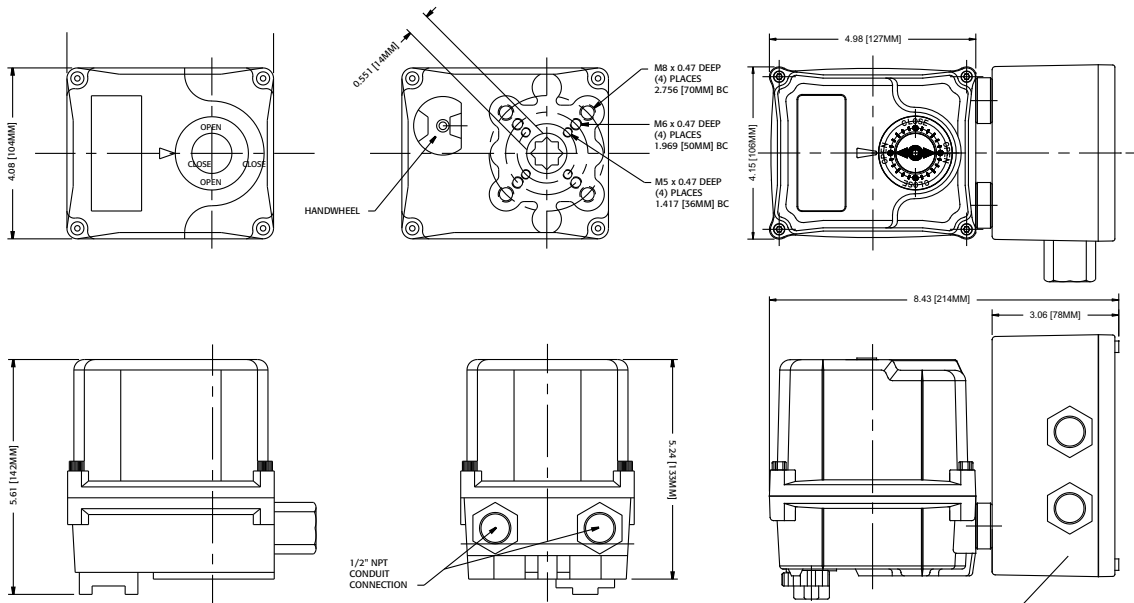
Standard Specification

- Enclosure**..... Weatherproof enclosure IP67, NEMA 4, 4X
- Power Supply**..... 110/220V AC 1PH, 50/60Hz, ± 10%, 24V AC/DC
- Duty cycle**..... 70%
- Motor**..... Class F Reversible motor
- Limit switches**..... Open/Close, SPDT, 5A 125 VAC, 3A 250 VAC, 0.4A 125 VDC, 0.2A 250 VDC
- Additional limit switches**..... Open/Close, SPDT, 5A 125V VAC, 3A 250 VAC, 0.4A 125 VDC, 0.2A 250 VDC
- Space heater**..... 2W (110/220V AC) Anti-condensation
- Manual override**..... Drive Nut (hexagon design)
- Cable conduit**..... Two 1/2" NPT
- Movement angle**..... 320° ± 10°
- Ambient temperature**..... -4°F - 158°F (optional -40° Low Temp Kit)
- External coating**..... Polyester powder coating

Options Specification

- Potentiometer unit (1K)
- (TMC) Electronic Modulating Card
4-20mA, 1-5mA, 0-10 VDC, 1-5 VDC,
0-135 Ohm Command Signal
- Current position transmitter
(Output 4~20mA DC)
- Multi(24VAC/DC)
- DC motor (24VDC)
- Local control unit
 - remote/local/stop
 - open/close

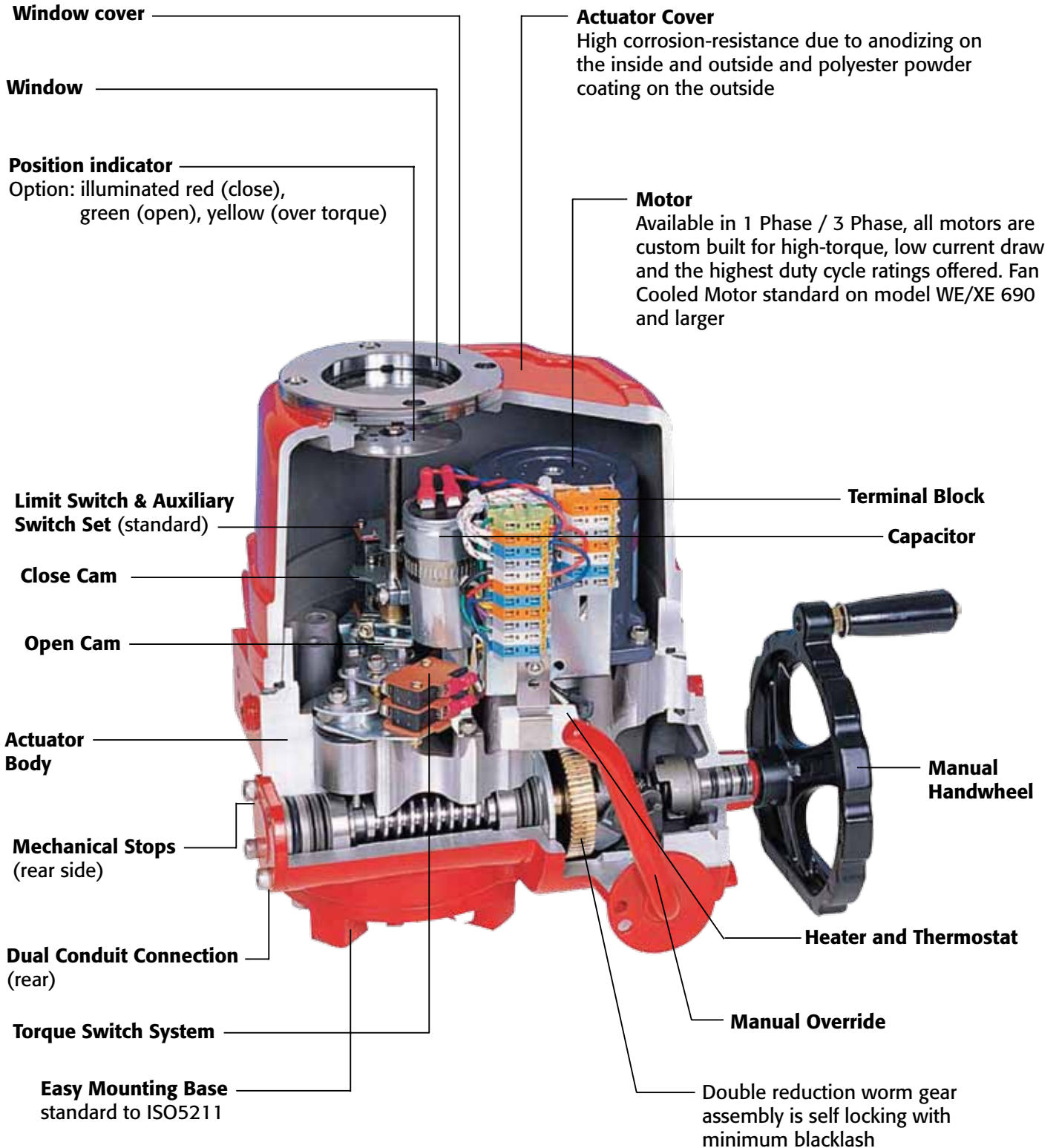
Dimensions

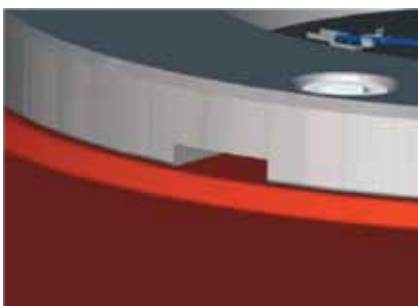
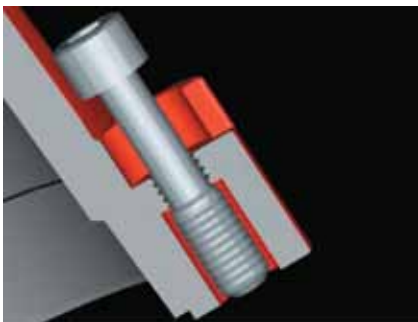


BUTTERFLY VALVES
BALL VALVES
DAMPER VALVES
PLUG VALVES

Control Box for Modulating card

Electric Actuators WE/XE



WE-690 - 25900***Terminal block***

- Extra terminals for customer's convenience
- Spring Loaded Terminal Strip Provides Secure Connection

Heater

- Ceramic housing with thermostat to eliminate condensation (7-10 watt Standard).
- Optional High Wattage Heater for Low Temp applications to -40°

Captive cover bolt

- Cover bolts are specially designed to prevent loosening during maintenance or installation
- All external bolts are stainless steel for rust prevention

Indicator sustained by spring

- Direction of visual indicator is set by factory
- To change its direction simply grip the indicator plate and rotate to the new position
- Spring beneath indicator plate sustains the set position
- No need to loosen screw and tighten it again

Slot on window cover for draining water

- A drain slot is provided to eliminate water buildup on window

WE/XE Series



Actuator Model	Output Torque	90° Cycle Time (sec)	Motor Size	Full Load Amps					Locked Rotor Amps				Handwheel Turns	Weight	
				AC/DC	1 Phase		3 Phase		AC/DC	1 Phase		3 Phase			
WE / XE	In-Lbs.	60 / 50 Hz	Watts	24V	110V	220V	380V	440V	24V	110V	220V	330V	440V	N	Lbs.
-690	690	13 / 16	15	3.5	1.00	0.45	N/A	N/A	10.00	1.46	0.71	N/A	N/A	10	16.4
-1350	1350	21 / 25	40	3.2	1.70	0.84	0.28	0.36	23.00	2.40	1.21	0.75	0.66	11	36.7
-1700	1700	21 / 25	40	3.2	1.70	0.84	0.28	0.36	23.00	2.40	1.21	0.75	0.66	11	36.7
-2640	2640	26 / 31	40	2.85	1.67	0.81	0.27	0.34	28.00	2.76	1.45	1.00	0.87	13.5	48.6
-4400	4400	26 / 31	90	N/A	3.56	1.30	0.42	0.47	N/A	5.98	2.35	1.73	1.50	13.5	50.8
-5200	5200	26 / 31	90	N/A	3.56	1.30	0.42	0.47	N/A	5.98	2.35	1.73	1.50	13.5	50.8
-6900	6900	31 / 37	180	N/A	4.93	2.20	0.61	0.67	N/A	6.94	3.60	2.73	2.38	16.5	64
-10500	10500	31 / 37	180	N/A	4.93	2.20	0.61	0.67	N/A	6.94	3.60	2.73	2.38	16.5	64
-17500	17500	95 / 112	180	N/A	4.93	2.20	0.61	0.67	N/A	6.94	3.60	2.73	2.38	49.5	167
-25900	25900	95 / 112	180	N/A	4.93	2.20	0.61	0.67	N/A	6.94	3.60	2.73	2.38	49.5	167

Standard Specifications

- Enclosure**.....Weatherproof enclosure, IP67, TYPE 4, 4X, 6
- AWWA**.....Conforms to AWWA C540-93 requirements
- Power supply**.....110/220V AC 1PH, 220/380/440/460/480VAC, 3 Phase, 50/60Hz, ±10%
- Control power supply**.....110/220V AC 1PH, 50/60Hz, ±10%
- Duty cycle(on-off)**.....70% Max 1800 start/hour
- Duty cycle(modulating)**.....70% Max 1800 start/hour
- Motor**.....Class F Reversible Induction motor
- Limit switches**.....Open / Close, SPDT, 16A 1/2HP 125/250VAC, 0.6A 125VDC, 0.3A 250VDC
- Additional limit switches**.....Open / Close, SPDT, 16A 1/2HP 125/250VAC, 0.6A 125VDC, 0.3A 250VDC
- Torque switches**.....Open / Close, SPDT, 16A 1/2HP 125/250VAC, 0.6A 125VDC, 0.3A 250VDC
- Stall protection**.....Built-in thermal protection, Open 302°F (150°C) / Close 207°F (97°C)
- Travel angle**.....90° ± 10°
- Indicator**.....Continuous position indicator
- Manual override**.....Declutching mechanism
- Self locking**.....Provided by double worm gearing
- Mechanical stopper**.....Open / Close (external adjustable screws)
- Space heater**.....7-10W (110/220V AC) Anti-condensation
- Cable Conduit**.....Two 3/4" NPT
- Lubrication**.....Grease moly (EP type)
- Terminal block**.....Spring loaded lever push type
- Materials**.....Steel, Aluminium alloy, Al bronze, Polycarbonate
- Ambient temperature**.....-4°F —158°F (optional -40° Low Temp Kit)
- Ambient humidity**.....90% RH Max. (non-condensing)
- External coating**.....Anodizing treatment before Dry powder, Polyester, Munsell no. 5R 3.5/12

Options Specifications

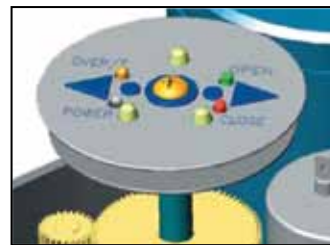


Explosion-Proof enclosure II 2 G, E Ex d IIB T4, E Ex d IIC T4, IP67.....	ATEX certification
Designed to comply with NEMA 7 Explosion Proof	
Watertight enclosure (IP68 10M 72HR).....	SE/XE Series
Potentiometer unit (1K ~10K).....	WE/XE Series
Proportional control unit (input, output 0~10V DC, 4~20mA DC).....	WE/XE Series
Additional torque switches (SPDT x 2EA 250V AC 10A Rating).....	except WE/XE-690
Semi-Integral control unit (Local/Remote Selector Switches).....	except WE/XE-690
Intelligent Digital control unit (Local/Remote Selector Switches).....	except WE/XE-690
Current position transmitter (output 4-20mA DC).....	WE/XE Series
Extension 120°, 180°, 270° turn.....	except WE/XE-17500, 25900
Duty Cycle 70% max (in Ambient temperature).....	except WE/XE-690
DC motor (24V DC).....	WE/XE-690—WE/XE-2640
AC/DC 24V control.....	WE/XE-690—WE/XE-2640
Lever plate actuator.....	except WE/XE-690
Signal lamp unit (red-close, green-open, yellow-over torque)	
Fire Proofing Actuator 1050 ±5°C/50 min.....	Consult factory
Fire Proofing Actuator 250 ±5°C/150 min.....	Consult factory



Explosion Proof Enclosure

- ATEX Certification
- Designed to comply with NEMA 7 Explosion Proof



Signal LED Unit

Large indicator with monitoring lamps (Over torque, open and close)



Fire Proofing Acuator



Removable Drive Bushing

Modulating Options for WE-500-25900

Modulating Cards



TMC3 Electronic Modulating Card

- Auto Calibration for Easy Setup
- 10 Bit Microprocessor controller for precise positioning and control
- 4-20mA, 1-5mA, 0-10 VDC, 1-5 VDC, 0-135 Ohm or Command Signal Potentiometer
- TMC3 Can be programmed to Fail in Place, Fail CW, or Fail CCW on loss of command signal
- Characterized Control-Linear, quick opening (Square root), or Equal Percentage (Square)
- OnBoard 4-20 mA transmitter (optional)



TDC Electronic Modulating Card

- 450 Point Resolution, 16 Bit Micro Processor
- Auto Calibration
- Adaptive Control Feature (continuously adjusts for load and actuator conditions and positions to $\pm 0.1^\circ$)
- Dynamic Breaking
- 4-20mA, 1-5V, 0-5V, 0-10V
- Programmed to Fail in place, Fail CW, or Fail CCW on loss of command signal
- 4-20mA Feedback Transmitter (Optional)

EPC Electronic AS-i Network Card

- AS-i Version 2.1
- 120 VAC or 24VDC Power
- Emergency Override-Normal Operation is overridden when actuator is driven to either Ch or CCh position on command
- Built in Emergency Position Command (EPC) overrides normal operation and automatically operates the valve into either the open or closed position (normally this is the closed position) as defined in the user specifications
- Signal Sentinel continuously monitors the EPC system offering additional failsafe backup in the event of an unexpected local event



Boiler Feedwater Application

- Control signal 4-20mA, specify these parts: LRC-100, POT-102 & Extended Bracket.
- Control signal 0-135 ohm, specify these parts: TDC-100, XMA-108, POT-102 & Extended Bracket

Other Network Cards Available Upon Request

Special Application

Intelligent Digital Control Unit

- Light, compact and integral design
- Wide range of electric power application (AC 220V~AC480V/3 Phase)
- Built-in auto phase discriminator (easy and convenient wiring)
- Digital indicator with number, bar graph, menu and (3) LED lamps
- Separate terminal chamber (Reliable against water, vibration, temperature, etc.)
- Easy application for WE-Series Actuators
- Various options available



Semi-Integral Control Unit

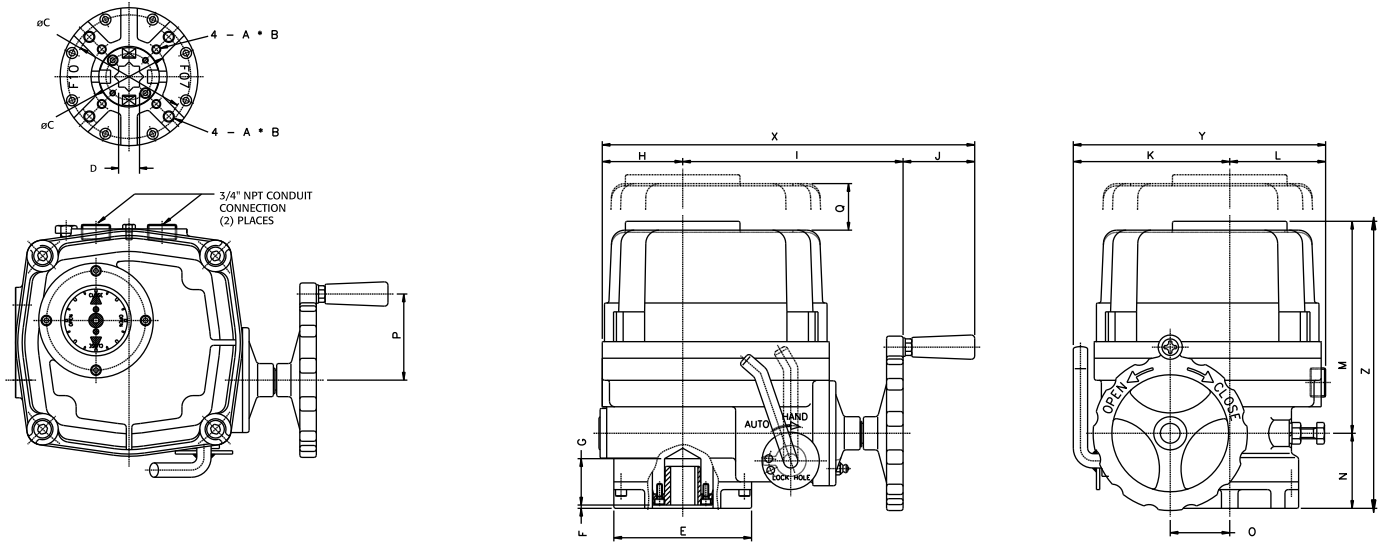
- Light, compact and integrated design (IMS, Local/Remote control)
- Wide range of electric power application (AC 115V~AC480V/1 Phase or 3 Phase)
- Phase protection monitoring by LED in case of reverse wiring
- Easy application for WE-Series Actuators
- Various options available



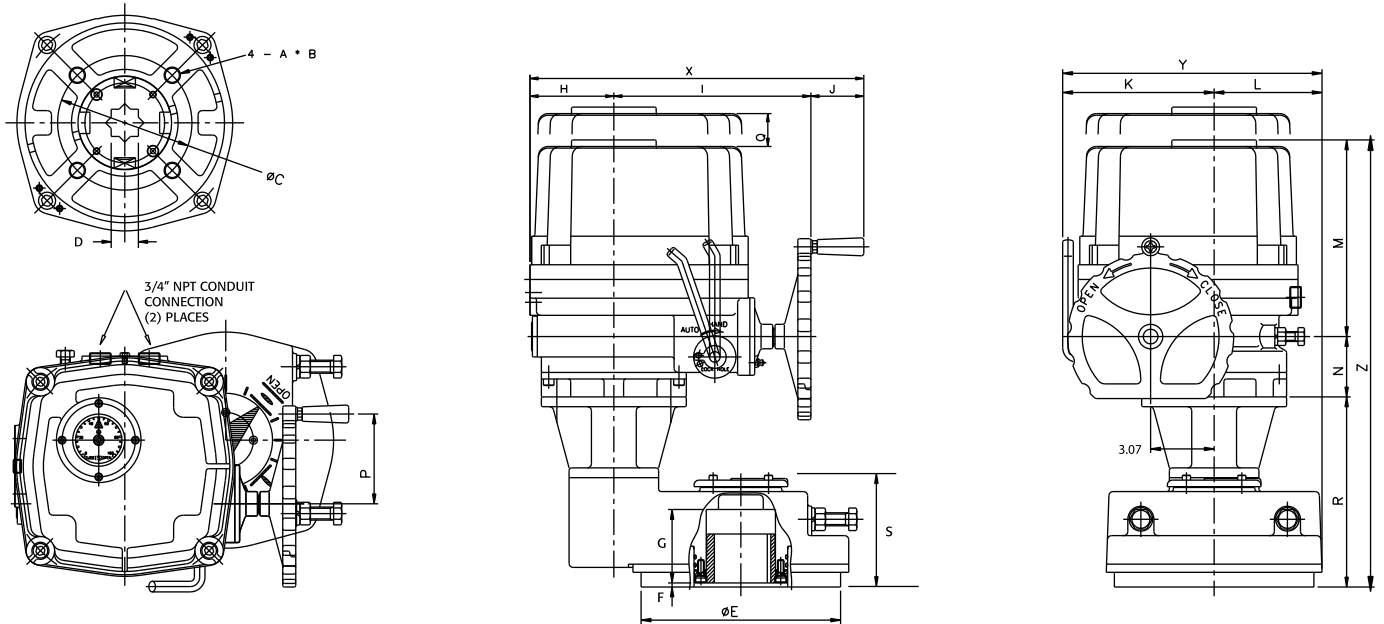
LED lamp signal	
White	○ :Power
Blue	● :Remote
Yellow	● :Fault
Red	● :Open/Opening
Green	● :Close/Closing

Dimensional Drawing

WE/XE-690, 1350, 1700, 2640, 4400, 5200, 6900, 10500



WE/XE-17500, 25900



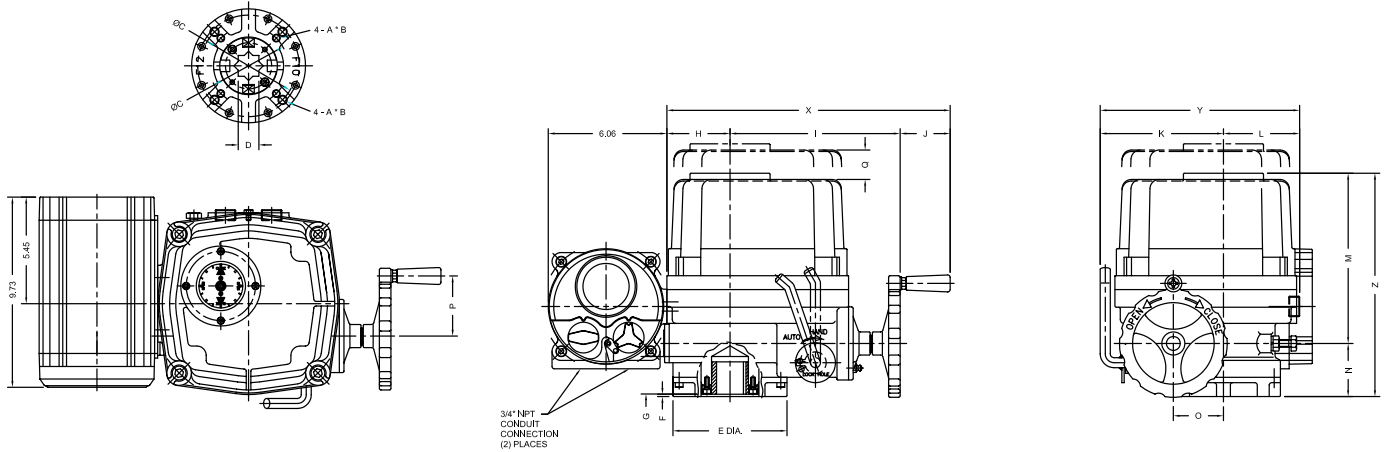
Dimensions

Units (inches)

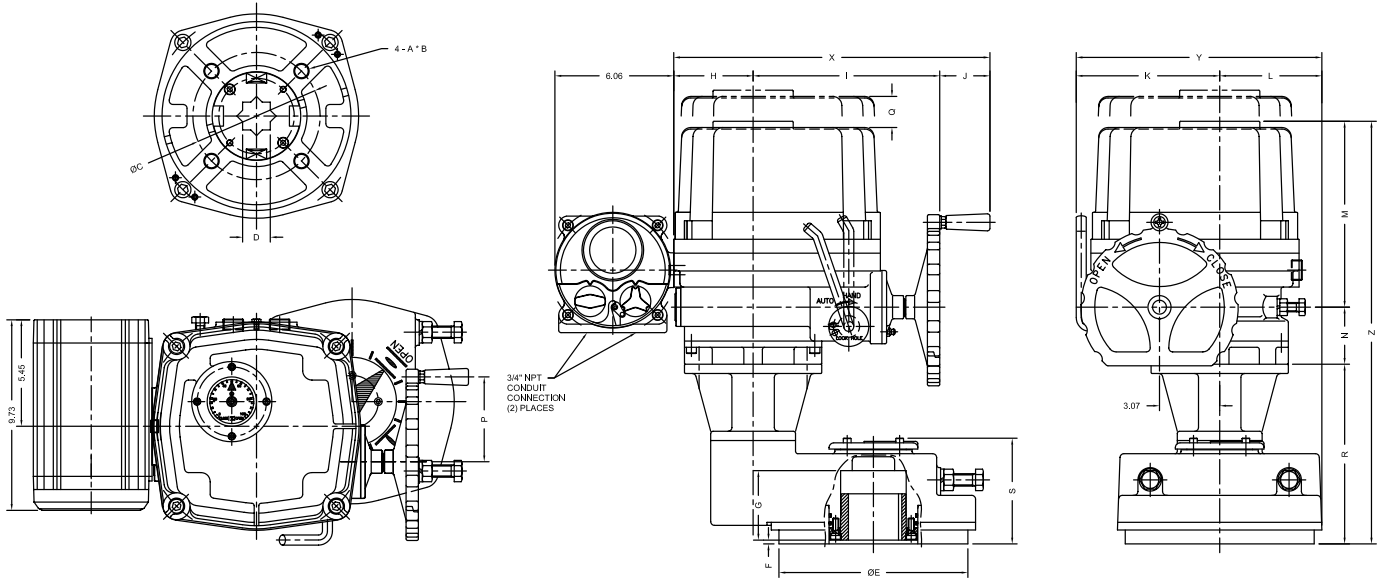
Model WE/XE	ISO 5211	A	B	C	D sq	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	X	Y	Z
-690	F07	M8	0.47	2.756	0.669	3.46	0.12	1.26	1.97	6.18	2.01	3.94	2.76	6.57	2.09	1.57	2.36	4.72	-	-	10.16	6.69	9.25
-1350	F07/F10	M8/M10	0.47/0.59	2.756/4.016	0.748	4.92	0.12	1.65	2.87	7.87	2.56	5.59	3.43	7.56	2.68	2.13	3.07	6.30	-	-	13.31	9.02	10.55
-1700	F07/F10	M8/M10	0.47/0.59	2.756/4.016	0.748	4.92	0.12	1.65	2.87	7.87	2.56	5.59	3.43	7.56	2.68	2.13	3.07	6.30	-	-	13.31	9.02	10.55
-2640	F10/F12	M10/M12	0.59/0.71	4.016/4.921	1.063	5.83	0.12	1.93	3.23	8.70	2.56	6.30	3.90	8.70	2.72	2.56	3.07	7.09	-	-	14.49	10.20	11.42
-4400	F10/F12	M10/M12	0.59/0.71	4.016/4.921	1.063	5.83	0.12	1.93	3.23	8.70	2.56	6.30	3.90	8.70	2.72	2.56	3.07	7.09	-	-	14.49	10.20	11.97
-5200	F10/F12	M10/M12	0.59/0.71	4.016/4.921	1.063	5.83	0.12	1.93	3.23	8.70	2.56	6.30	3.90	8.70	2.72	2.56	3.07	7.09	-	-	14.49	10.20	11.97
-6900	F14	M16	0.95	5.512	1.417	7.01	0.12	2.24	4.06	9.53	2.56	7.32	4.37	9.49	2.91	3.07	4.33	8.27	-	-	16.14	11.69	12.99
-10500	F14	M16	0.95	5.512	1.417	7.01	0.12	2.24	4.06	9.53	2.56	7.32	4.37	9.49	2.91	3.07	4.33	8.27	-	-	16.14	11.69	12.99
-17500	F16	M20	1.18	6.496	1.417	9.65	0.20	3.54	4.06	9.53	2.56	7.32	5.24	9.49	2.91	3.07	4.33	8.27	9.17	5.24	16.14	12.56	22.17
-25900	F16	M20	1.18	6.496	1.417	9.65	0.20	3.54	4.06	9.53	2.56	7.32	5.24	9.49	2.91	3.07	4.33	8.27	9.17	5.24	16.14	12.56	22.17

Dimensional Drawing

WE-1350, 1700, 2640, 4400, 5200, 6900, 10500 Intelligent Digital Control Unit



WE-17500, 25900 Intelligent Digital Control Unit



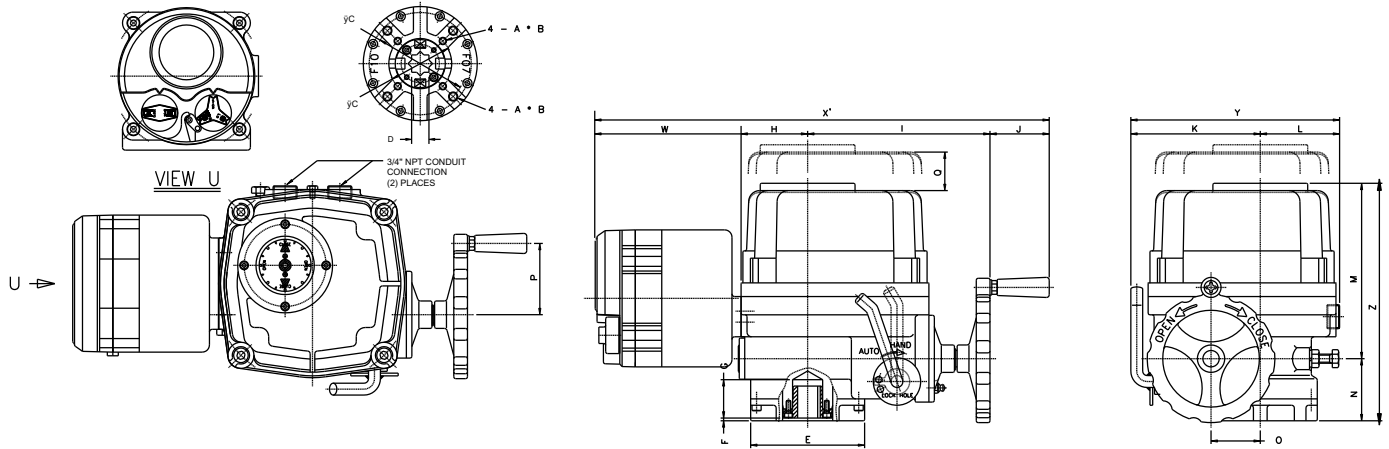
Dimensions

Units (inches)

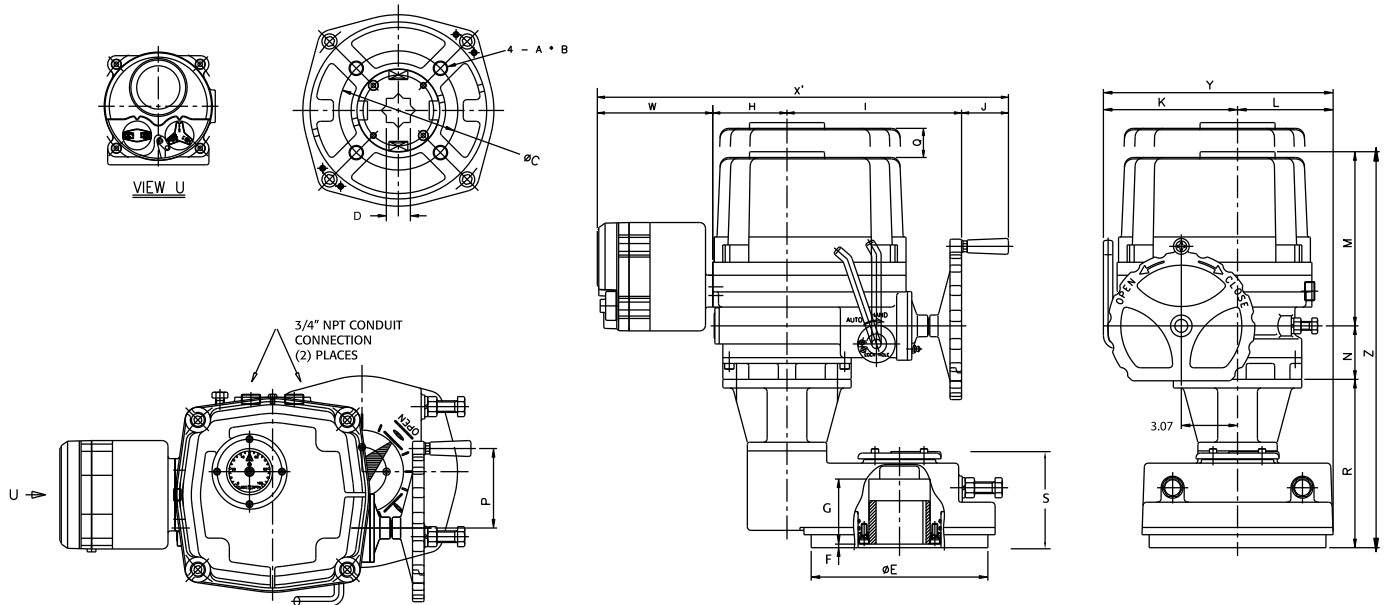
Model WE	ISO 5211	A	B	C	D sq	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	X	Y	Z
-1350	F07/F10	M8/M10	0.47/0.59	2.756/4.016	0.748	4.92	0.12	1.65	2.87	7.87	2.56	5.59	3.43	7.56	2.68	2.13	3.07	6.30	-	-	13.31	9.02	10.55
-1700	F07/F10	M8/M10	0.47/0.59	2.756/4.016	0.748	4.92	0.12	1.65	2.87	7.87	2.56	5.59	3.43	7.56	2.68	2.13	3.07	6.30	-	-	13.31	9.02	10.55
-2640	F10/F12	M10/M12	0.59/0.71	4.016/4.921	1.063	5.83	0.12	1.93	3.23	8.70	2.56	6.30	3.90	8.70	2.72	2.56	3.07	7.09	-	-	14.49	10.20	11.42
-4400	F10/F12	M10/M12	0.59/0.71	4.016/4.921	1.063	5.83	0.12	1.93	3.23	8.70	2.56	6.30	3.90	8.70	2.72	2.56	3.07	7.09	-	-	14.49	10.20	11.97
-5200	F10/F12	M10/M12	0.59/0.71	4.016/4.921	1.063	5.83	0.12	1.93	3.23	8.70	2.56	6.30	3.90	8.70	2.72	2.56	3.07	7.09	-	-	14.49	10.20	11.97
-6900	F14	M16	0.95	5.512	1.417	7.01	0.12	2.24	4.06	9.53	2.56	7.32	4.37	9.49	2.91	3.07	4.33	8.27	-	-	16.14	11.69	12.99
-10500	F14	M16	0.95	5.512	1.417	7.01	0.12	2.24	4.06	9.53	2.56	7.32	4.37	9.49	2.91	3.07	4.33	8.27	-	-	16.14	11.69	12.99
-17500	F16	M20	1.18	6.496	1.417	9.65	0.20	3.54	4.06	9.53	2.56	7.32	5.24	9.49	2.91	3.07	4.33	8.27	9.17	5.24	16.14	12.56	22.17
-25900	F16	M20	1.18	6.496	1.417	9.65	0.20	3.54	4.06	9.53	2.56	7.32	5.24	9.49	2.91	3.07	4.33	8.27	9.17	5.24	16.14	12.56	22.17

Dimensional Drawing

WE-1350, 1700, 2640, 4400, 5200, 6900, 10500 *Semi-integral Control Unit*



WE-17500, 25900 *Semi-integral Control Unit*



Dimensions

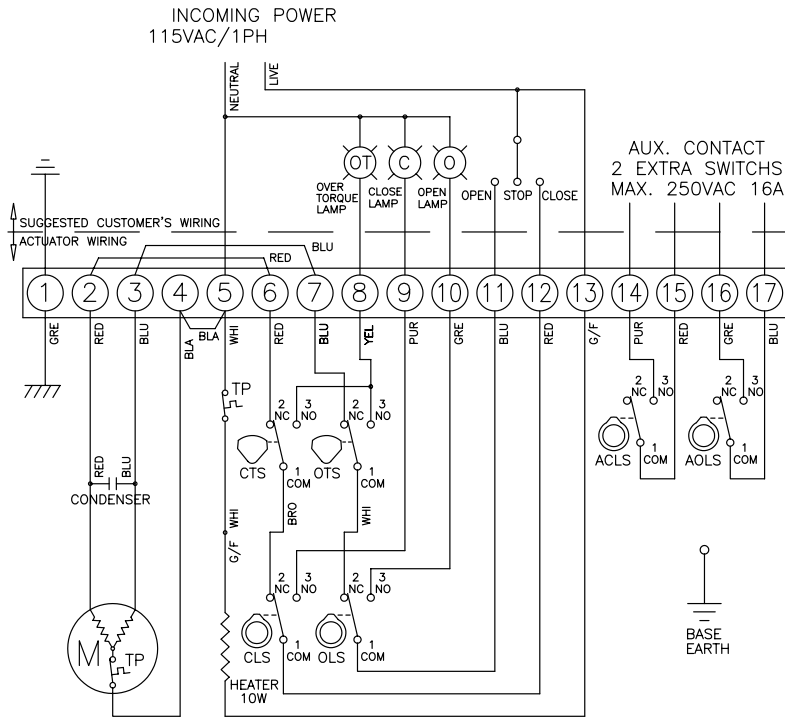
Units (inches)

Model WE	ISO 5211	A	B	C	D sq	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	W	X	Y	Z
-1350	F07/F10	M8/M10	0.47/0.59	2.756/4.016	0.748	4.92	0.12	1.65	2.87	7.87	2.56	5.59	3.43	7.56	2.68	2.13	3.07	6.30	-	-	6.30	19.61	9.02	10.55
-1700	F07/F10	M8/M10	0.47/0.59	2.756/4.016	0.748	4.92	0.12	1.65	2.87	7.87	2.56	5.59	3.43	7.56	2.68	2.13	3.07	6.30	-	-	6.30	19.61	9.02	10.55
-2640	F10/F12	M10/M12	0.59/0.71	4.016/4.921	1.063	5.83	0.12	1.93	3.23	8.70	2.56	6.30	3.90	8.70	2.72	2.56	3.07	7.09	-	-	6.30	14.49	10.20	11.42
-4400	F10/F12	M10/M12	0.59/0.71	4.016/4.921	1.063	5.83	0.12	1.93	3.23	8.70	2.56	6.30	3.90	8.70	2.72	2.56	3.07	7.09	-	-	6.30	20.79	10.20	11.97
-5200	F10/F12	M10/M12	0.59/0.71	4.016/4.921	1.063	5.83	0.12	1.93	3.23	8.70	2.56	6.30	3.90	8.70	2.72	2.56	3.07	7.09	-	-	6.30	20.79	10.20	11.97
-6900	F14	M16	0.95	5.512	1.417	7.01	0.12	2.24	4.06	9.53	2.56	7.32	4.37	9.49	2.91	3.07	4.33	8.27	-	-	6.30	22.44	11.69	12.99
-10500	F14	M16	0.95	5.512	1.417	7.01	0.12	2.24	4.06	9.53	2.56	7.32	4.37	9.49	2.91	3.07	4.33	8.27	-	-	6.30	22.44	11.69	12.99
-17500	F16	M20	1.18	6.496	1.417	9.65	0.20	3.54	4.06	9.53	2.56	7.32	5.24	9.49	2.91	3.07	4.33	8.27	9.17	5.24	6.30	22.44	12.56	22.17
-25900	F16	M20	1.18	6.496	1.417	9.65	0.20	3.54	4.06	9.53	2.56	7.32	5.24	9.49	2.91	3.07	4.33	8.27	9.17	5.24	6.30	22.44	12.56	22.17

Wiring drawings are available upon request.

Wiring Connection

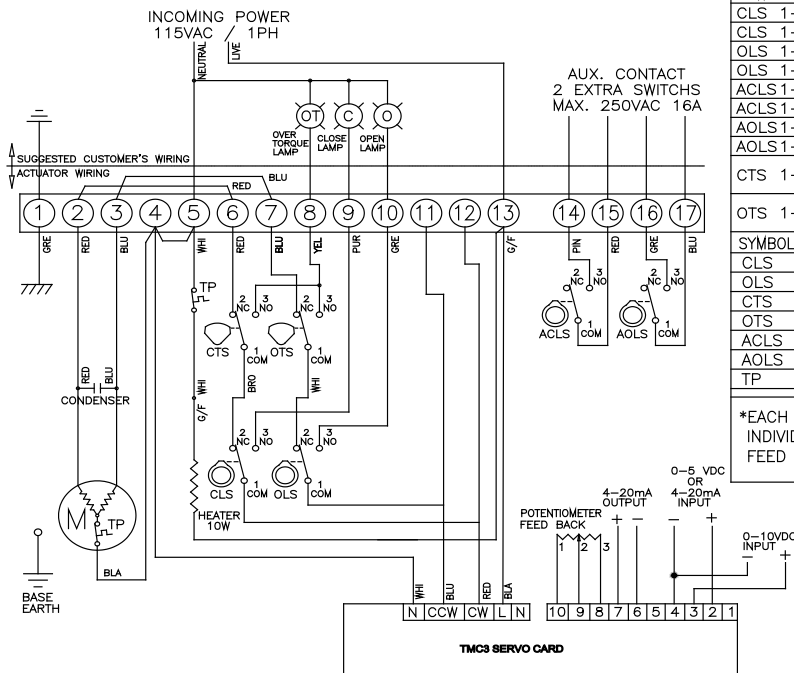
WE/XE-1350 thru 2590 Two Position 115 VAC/1 Ph SE 1080



TORQUE AND LIMIT SWITCH OPERATION			
SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS 1-2			
ACLS 1-3			
AOLS 1-2			
AOLS 1-3			
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE		
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE		
SYMBOL	DESCRIPTION	RATING	
CLS	CLOSE LIMIT SWITCH	250VAC 10A	
OLS	OPEN LIMIT SWITCH	250VAC 10A	
CTS	CLOSE TORQUE SWITCH	250VAC 10A	
OTS	OPEN TORQUE SWITCH	250VAC 10A	
ACLS	AUX. CLOSE LIMIT SWITCH	250VAC 16A	
AOLS	AUX. OPEN LIMIT SWITCH	250VAC 16A	
TP	THERMAL PROTECTOR	250VAC 15A	

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

WEM/XEM-1350 thru 2590 Proportional 115 VAC/1 Ph SE 1052



TORQUE AND LIMIT SWITCH OPERATION			
SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS 1-2			
ACLS 1-3			
AOLS 1-2			
AOLS 1-3			
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE		
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE		
SYMBOL	DESCRIPTION	RATING	
CLS	CLOSE LIMIT SWITCH	250VAC 10A	
OLS	OPEN LIMIT SWITCH	250VAC 10A	
CTS	CLOSE TORQUE SWITCH	250VAC 10A	
OTS	OPEN TORQUE SWITCH	250VAC 10A	
ACLS	AUX. CLOSE LIMIT SWITCH	250VAC 16A	
AOLS	AUX. OPEN LIMIT SWITCH	250VAC 16A	
TP	THERMAL PROTECTOR	250VAC 15A	

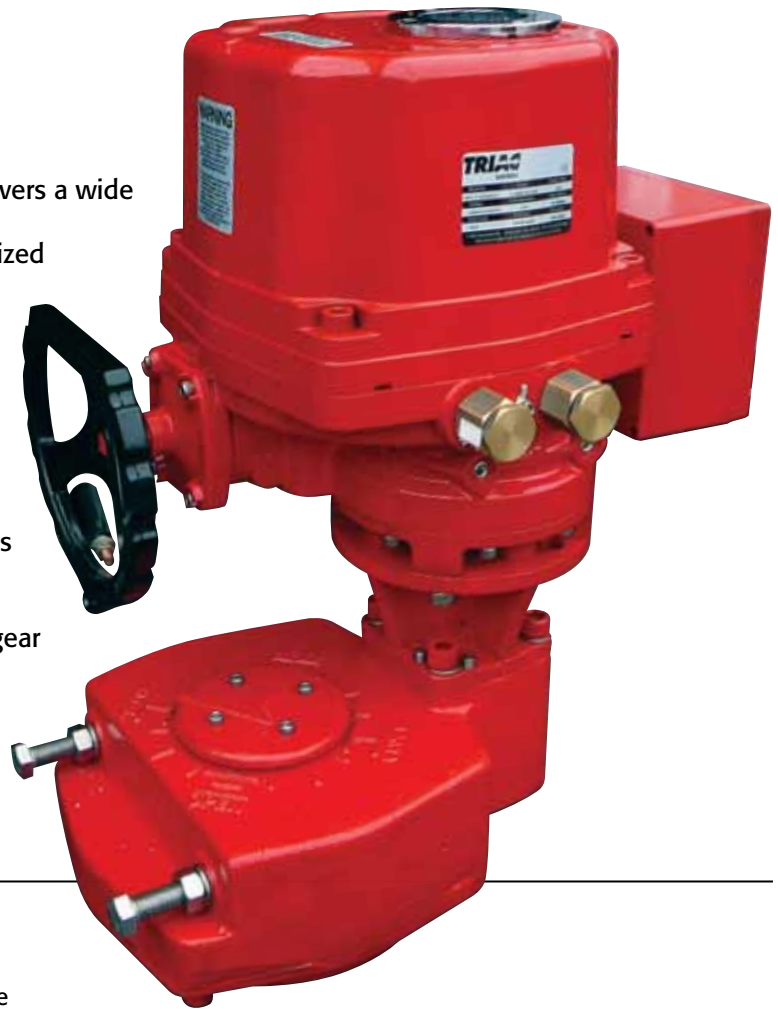
*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

Wiring drawings are available upon request.

WE-53000 and WE-80000

Features

- Compact, robust and lightweight construction covers a wide range of torques up to 80000 In-lbs.
- Polyester powder coated exterior and hard anodized aluminum interior provides excellent protection from the most severe industrial environments.
- Double worm gear design prevents any valve movement from dynamic forces within the pipeline.
- Standard ISO 5211 mounting configuration provides direct mounting option to any ISO 5211 valve.
- Weatherproof enclosure with O-ring seal provides NEMA 4, 4X and 6 (IP67) protection.
- Declutchable manual override with hand wheel.
- Mechanical torque switches prevent motor and gear set damage during excessive torque scenarios.
- Large visual indicator allows for positive visual position identification from greater distances.
- Digitized control components.



Standard Construction

- Manual override
- External Mechanical Stopper
- Two Conduit entries PF 3/4"
- Removable drive bushing and ISO5211 mounting base
- Standard four limit switches. Two for each travel end (open/close)
- Captive cover bolt
- Space heater
- Limit switches for tight, easy setting
- Spring loaded push type terminal
- Standard color : Red

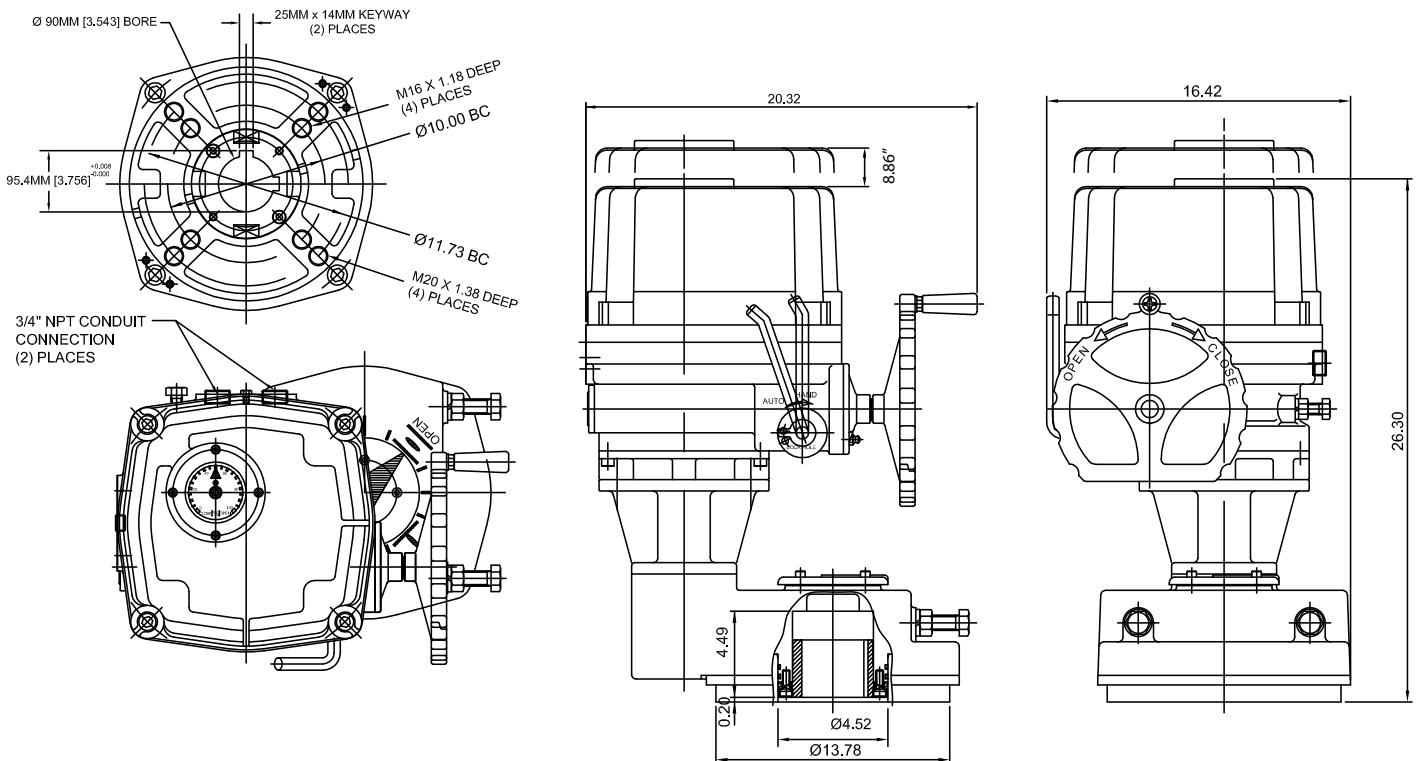
Technical Information

Type (Model)	Maximum Output Torque	Operating Time 60/50 Hz	Mounting Size	Motor Insulation Class	Rated Current(A) 60Hz			Duty Cycle	Number of Handle Turns	Weight	Maximum Bore Size (mm)	
					1 Phase	3 Phase	3 Phase				Key (ø)	Square (α)
	In-Lbs.	90°	ISO5211	AC 1PH. 50/60Hz	220V	380V	440V	S2	Lbs.	Key (ø)	Square (α)	
WE-53000	53000	149 sec.	F25/30	F	3.15	1.8	2.2	30%	39	335	120	100
WE-80000	80000				3.85	2.0	2.4					

Standard Specification

- Enclosure**.....Weatherproof enclosure IP67, NEMA 4, 4X & 6, O-ring Sealed
- Power Supply**.....220VAC/1PH/60Hz, 380/440/VAC/3Ph/60Hz ± 10%, 24VDC
- Duty cycle**.....30%
- Motor**.....Squirrel Cage induction motor
- Limit switches**.....2 each for Open/Close, SPDT, 250 VAC, 10A Rating
- Torque switches**.....1 each for Open/Close, SPDT, 250 VAC, 10A Rating
- Space heater**.....5W (220VAC) Anti-condensation
- Manual override**.....Declutchable
- Cable conduit**.....Two PF 3/4" TAP
- Movement angle**.....90° ± 5°
- Ambient temperature**.....-4°F to 158°F (optional -40° Low Temp Kit)
- Ambient Humidity**.....90% RH Max (Non-Condensing)
- Position Indicator**.....Continuous mechanical indicator with arrow
- Self locking**.....Provided by double worm gearing (no brake)
- Mechanical Stopper**.....1 for each travel end (open/close), external & adjustable
- Stall protection/set temp**.....Built in thermal protection, Open 302°F (150°C) / Close 207°F (97°C)
- Terminal Block**.....Spring loaded lever push type
- External coating**.....Polyester powder coating
- Lubrication**.....EP type grease
- Anti Vibration**.....XYZ 10g, 0.2-34Hz, 30 minutes

Dimensions



Triac WE / XE Series Part Number Reference

Model	
WE	Weather Proof, IP67, TYPE 4, 4X, 6
XE	Explosion Proof Design, ATEX E Ex d IIB T4, IP67
FE	Fire Proof Unit (1050°F for 50 Min)
SE	Submersible unit (IP68, 10 meters for 72 Hours)

Control	
Blank	(2) Position Control (Open / Close)
M	Standard Modulating Control Card (TMC3)
D	TDC-100 Modulating Card (Provides 450 points of resolution)

Actuator	
Size	
-350	350 In-Lbs
-350HS	270 In-Lbs
-500	500 In-Lbs
-690	690 In-Lbs
-1350	1350 In-Lbs
-1700	1700 In-Lbs
-2640	2640 In-Lbs
-4400	4400 In-Lbs
-5200	5200 In-Lbs
-6900	6900 In-Lbs
-10500	10500 In-Lbs
-17500	17500 In-Lbs
-25900	25900 In-Lbs
-53000	53000 In-Lbs
-80000	80000 In-Lbs

Motor		
X	115VAC/1PH	Place holder only - Omit when at end of part number
A	24V AC/DC	(N/A 4400 - 25900)
B	N/A	
C	24VDC	(N/A 4400 - 25900)
D	24VAC/1PH	(N/A 4400 - 25900)
E	220VAC/1PH	
F	220VAC/3PH	(N/A 500, 690)
H	380/440VAC/3PH	(N/A 500, 690)
J	460/480VAC/3PH	(N/A 500, 690)

Options		
X	No options	Place holder only - Omit when at end of part number
B	Semi-integral Control Unit	(N/A 500, 690)
C	Intelligent Digital Control Unit	(N/A 500, 690)
D	Local / Remote Control Switches	(Only 500, 690)
E	Electronic Speed Control Module	- 115 VAC only
F	2 Wire Control & Speed Control	- 115 VAC only
G	End of travel time delay	(same in both directions)
R	2 Wire Control, Relay	- 115 VAC control voltage
S	2 Wire Control, Relay	- 24 VAC control voltage
T	2 Wire Control, Relay	- 24 VDC control voltage

Miscellaneous Options Note: Add all miscellaneous options to end of part number		
Blank	No options	
T	4-20mA Transmitter	
N	1000 Ohm Potentiometer	
O	5000 Ohm Potentiometer	
P	10K Ohm Potentiometer	
X	120° Operation	(N/A 17500 or 25900)
Y	180° Operation	(N/A 17500 or 25900)
Z	270° Operation	(N/A 17500 or 25900)
L	-40° Low Temp Kit	
I	Position Indicator Lamps (Open, Close, Torque)	(N/A 500, 690)
S	(2) additional limit switches (6 total)	(N/A 500, 690)
R	(2) additional torque switches (4 total)	(N/A 500, 690)
XX	Special cycle time	
	Floor Drive Mounting Configuration - See Floor Drive Catalog	

Examples

WEM-1350

(Weather Proof Housing, Modulating Control, model size 1350, 115VAC / 1PH)

WEM-1350XXT

(Weather Proof Housing, Modulating Control, model size 1350, 115VAC / 1PH, 4-20mA Transmitter)



Triac Division
11363 Deerfield Rd.
Cincinnati, Ohio 45242

PHONE (513) 247-5465
FAX (513) 247-5462
e-mail: sales@a-tcontrols.com
www.a-tcontrols.com

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