

BETTIS™

TorqPlus™
Electric Valve
Actuators
and Controls



EMERSON™
Process Management

EMERSON. CONSIDER IT SOLVED.™



Torque 350 IN/LB – 1600 IN/LB

The Engineered Solution

Bettis TorqPlus quality line of electric actuators are designed for quarter turn applications – ball, butterfly and plug valves; dampers; vents and similar uses. TorqPlus actuators are manufactured in a wide range of **guaranteed** output torques and operating speeds to fit your specific requirements.

The Model EM-500 Series are designed for the entire mid-range of torques and operating speeds, with a rugged versatility that is hard to beat.



STANDARD FEATURES

- Two year warranty
- Heater and thermostat installed in all actuators
- Hardened steel spur gear train is permanently lubricated
- Hardened steel drive shaft
- Female DIN/ISO F07 output drive and F07/F10 bolt pattern or male output drive

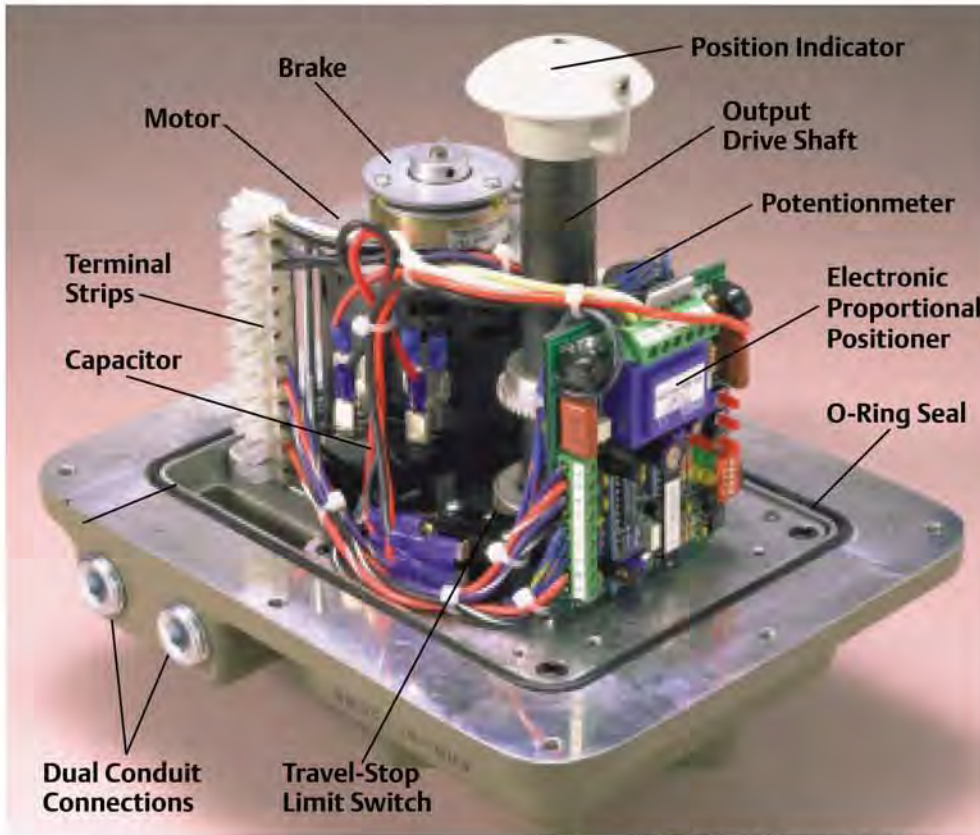
- Operating temperatures:
 - 40° F with standard heater activated, to +140° F
- Single phase capacitor run motor with thermal overload protection
- Enclosure certified to weatherproof C.S.A. specifications that conform to NEMA type 1, 2, 3, 3R, 4, 4X and 12
- Declutchable manual override with position indicator
- Dual 1/2-inch NPT machined conduit entrances
- Captive hex bolts on enclosure
- Operational in any mounting orientation
- Two single pole double throw end of travel stop limit switches with adjustable cams
- Weight: 17 to 18 lbs

OPTIONAL FEATURES

- Electromechanical brake
- Standard 1KΩ potentiometer, other ranges provided upon request
- Electronic proportional positioner for 4-20mA, 1-5 VDC, or 0-10 VDC control input, and 4-20mA output signal
- Relay control
- Optional voltages
 - 220 VAC 50/60 Hz single phase
 - 12/24 VDC
 - 24 VAC
- Maximum of four additional single pole double throw auxiliary limit switches with adjustable cams
- Handwheel
- Dual purpose weatherproof and explosion-proof enclosures are certified by Canadian Standards Association for services: Class I Groups C,D, Division I; Class II Groups E,F,G Division I that conform to NEMA type 7 and 9
- Canadian Standards Association general purpose for electrical certification available under file #LR90062



Torque 350 IN/LB – 1600 IN/LB



*Heater and Thermostat not shown.

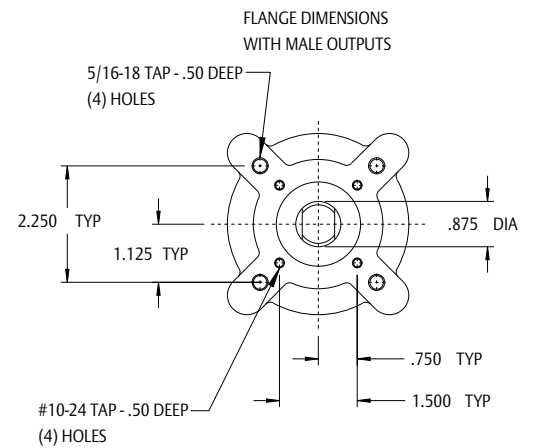
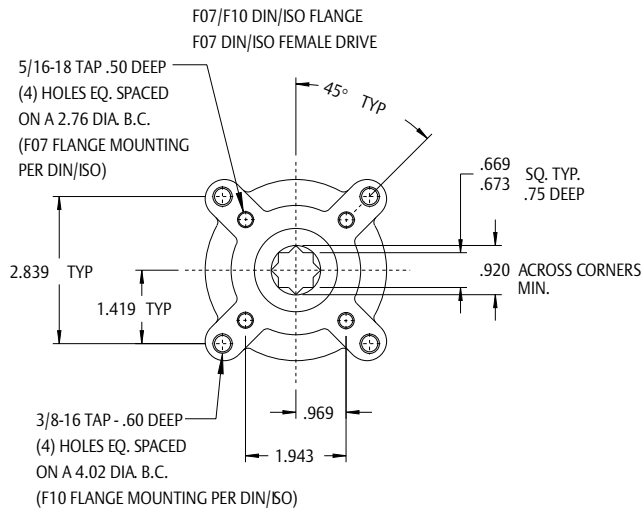
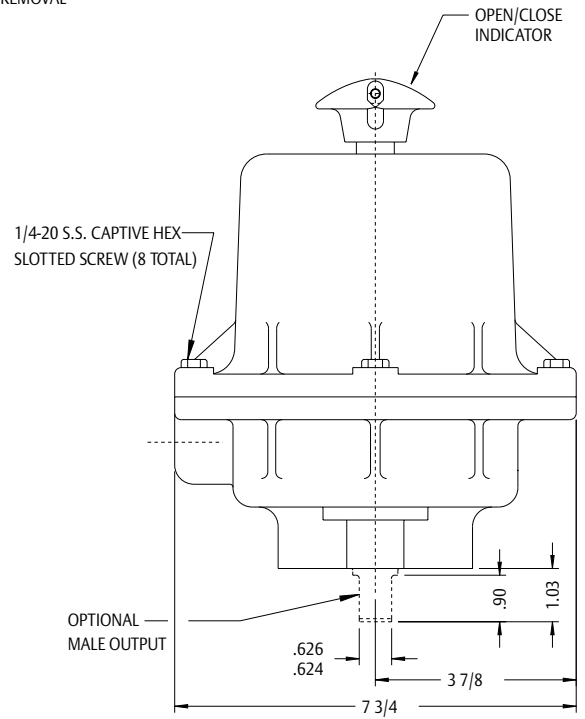
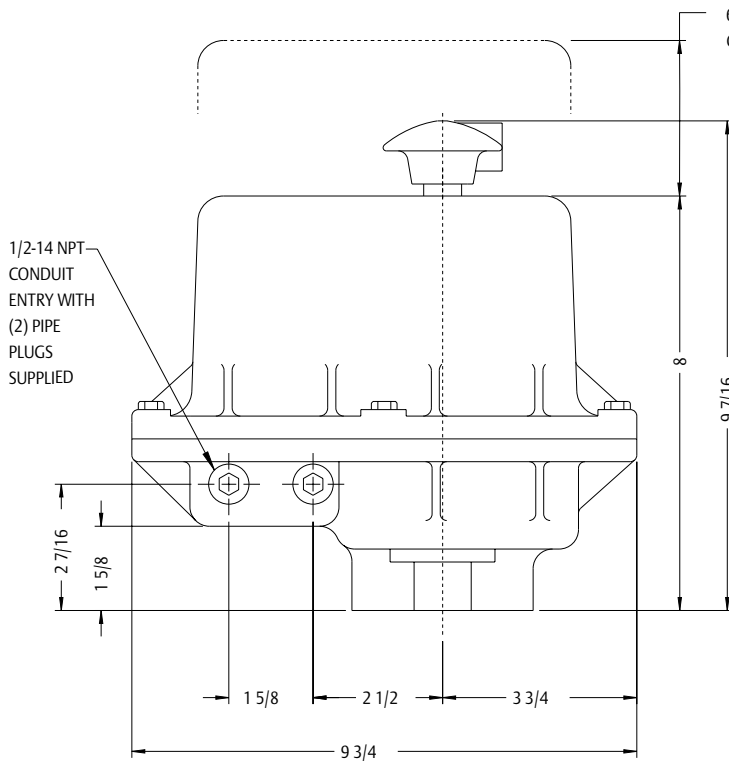
MODEL EM-500 SERIES									
TORQUE		SPEED 90°	MODEL	LOCKED ROTOR AMP				MOTOR DUTY CYCLE @ 75°F	
IN/IB	NM			115VAC	230VAC	12VDC	24VDC	AC	DC
350	39	5 SEC	500-05	0.69	0.36	8.4	7.3	100%	100%
700	79	10 SEC	500-10	0.69	0.36	8.4	7.3	100%	100%
1000	113	15 SEC	500-15	0.69	0.36	8.4	7.3	100%	100%
1600	181	30 SEC	500-30	0.35	0.45	8.4	7.3	100%	100%
325	36	2 SEC	510-02	1.57	0.80	--	18.4	100%	100%
600	68	5 SEC	510-05	1.57	0.80	--	18.4	100%	100%
1000	113	7 SEC	510-07	1.57	0.80	--	18.4	100%	100%
180	20	5 SEC	520-05	0.57	0.29	19.2	8.8	30%	100%
450	51	10 SEC	520-10	0.57	0.29	19.2	8.8	30%	100%
600	68	15 SEC	520-15	0.57	0.29	19.2	8.8	30%	100%
1000	113	30 SEC	520-30	0.57	0.29	19.2	8.8	30%	100%

Bettis Electric Mansfield, OH U.S.A. T 419-529-4296 Website: www.EmersonProcess.com

Assembly Layout Drawings



MODEL EM-500 EM-510 EM-520



Bettis Electric

2500 Park Avenue West
Mansfield, OH 44906 U.S.A.
T 419-529-4296
F 419-529-4484
Website: www.EmersonProcess.com
E-Mail: Info.Bettis@EmersonProcess.com

Bettis USA

P.O. Box 508
Waller, TX 77484 U.S.A.
T 281-463-5100
F 281-463-5103
Website: www.EmersonProcess.com
E-mail: Info.Bettis@EmersonProcess.com

Bettis UK Ltd.

3 Furze Court
114 Wickham Rd.
Fareham, Hampshire PO 16 7SH
T 44-1329-848-900
F 44-1329-848-901

Bettis Canada Ltd.

4112-91 A Street
Edmonton, Alberta T6E 5V2
Canada
T 780-450-3600
F 780-450-1400

Bettis France:

25, Rue de Villeneuve
Silic – BP 40434
94583 RUNGIS, France
T 331-49-797300
F 331-49-797399

Bettis Int'l Sales Office:**Calgary, Canada**

Rheinberg, Germany
New Bombay, India
Singapore

Important: Due to Emerson's continuing commitment to engineered product advancement, data presented herein is subject to change.

Certified dimensional drawings and wiring diagrams are available on request. Consult factory with model designation and serial number.

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