

T Series Actuator (low voltage)



180 in.lb. (20 Nm) torque



PRIMARY USES FOR THESE ACTUATORS

- ◆ medium size air handler dampers
- ◆ 1/4 turn valves

These quarter turn actuators may be directly coupled to either a 3/4 inch round or 5/8 inch square jack shaft or remotely mounted using an adaptor kit. All actuators are bi-directional. Enerdrive actuators are also bi-directional under fail safe conditions. The stroke may be limited to less than 90° mechanically in digital models (with SLD sold separately) and electronically in Multi Signal models.

GENERAL SPECIFICATIONS

Power Supply:	24Vac/30Vdc
Power Consumption:	Peak at Start-up: 8VA to 40VA at 26Vac Depending upon the Model Operating at Full Load: 8VA to 15VA at 26Vac Depending upon the Model
Wire Size:	18 AWG (0.8 mm ²) Minimum
Electrical Connections:	Two 7/8 in. (22.2 mm) Knock Outs, Screw Terminals
Control Signals:	Digital (TT): 2 Wire or 3 Wire 2 Position and/or 3 Wire or 4 Wire 3 Point Floating Depending upon the Model Multi Signal (TM): ANALOG: A) 2-10Vdc; or B) May be Externally Wired with a 500 Ohm Resistor which is Supplied for 4-20mA, Zero & Span Adjustable PULSE WIDTH MODULATION: Time Base of 0.1-5 Sec/20mS Resolution or 0.1-25 Sec/100mS Resolution Selected by Dip Switch Position SWITCH 24Vac: Triac or Dry Contact, 40mA Max. Switching Current SWITCH COMMON: NPN Transistor, SCR, Triac or Dry Contact 75mA Max. Switching Current DIGITAL: 3 Wire 2 Position or 4 Wire 3 Point Floating
Torque:	180 in.lb. (20 Nm) at Rated Voltage
Direction & Time of Rotation:	Reversible, 40 to 50 sec or 60 to 85 sec, 0-180 in.lb. (0-20 Nm) Depending upon the Model
Ambient Temperature:	0°F to +122°F (-18°C to +50°C)
Feedback Potentiometer:	In Digital (TTXX5): Voltage (0-12Vdc max) In Multi Signal (TM): 4-20mA Output (May be wired for a 2-10Vdc signal)
Fail Safe (Enerdrive) Rating:	Models Ending in 60, 65, 80, 60N or 80N: 180 in.lb. (20 Nm)
Enerdrive Response Time:	60 to 85 sec Closure Through 90°, 0-180 in.lb. (0-20 Nm)
Auxiliary Switches:	Models Ending in 20, 80, 20N, or 80N: 2 Mechanical Switches, Fixed at 10° & 80°
Auxiliary Switch Rating:	5 Amp Resistive, 250Vac
Electronic Enclosure:	Flammability rating UL94-5V Option W: IP65 equivalent to Nema type 4 enclosure with special protection against chemicals

Spec Sheet Available on Our Website

Actuator Models	Power			Control Signals					Time in sec Thru 90° Arc	Actuator Features				
	Nom. Supply	Consumption		Digital		Multi Signal				Feed Back	Auto Stroke	Zero & Span	Fail Safe (Enerdrive)	2 Mech. Aux. Switches
		Start Up	Full Load	2 POS	3 PT FLT	2-10 Vdc	4-20 mA	PWM						
for low voltage applications														
TT000	24Vac 30Vdc	8VA	8VA	◆	◆				60 to 85					
TT005	24Vac 30Vdc	8VA	8VA	◆	◆				60 to 85	◆				
TT020	24Vac 30Vdc	8VA	8VA	◆	◆				60 to 85					◆
TT060	24Vac 30Vdc	24VA	8VA	◆	◆				60 to 85				◆	
TT065	24Vac 30Vdc	24VA	8VA	◆	◆				60 to 85	◆			◆	
TT080	24Vac 3Vdc	24VA	8VA	◆	◆				60 to 85				◆	◆
TM000	24Vac 30Vdc	8VA	8VA	◆	◆	◆	◆	◆	60 to 85	◆	◆	◆		
TM020	24Vac 30Vdc	8VA	8VA	◆	◆	◆	◆	◆	60 to 85	◆	◆	◆		◆
TM060	24Vac 30Vdc	30VA	8VA	◆	◆	◆	◆	◆	60 to 85	◆	◆	◆	◆	
TM080	24Vac 30Vdc	30VA	8VA	◆	◆	◆	◆	◆	60 to 85	◆	◆	◆	◆	◆
TM000N	24Vac 30Vdc	15VA	15VA	◆	◆	◆	◆	◆	40 to 50	◆	◆	◆		
TM020N	24Vac 30Vdc	15VA	15VA	◆	◆	◆	◆	◆	40 to 50	◆	◆	◆		◆
TM060N	24Vac 30Vdc	40VA	15VA	◆	◆	◆	◆	◆	40 to 50	◆	◆	◆	◆	
TM080N	24Vac 30Vdc	40VA	15VA	◆	◆	◆	◆	◆	40 to 50	◆	◆	◆	◆	◆

Note: All actuators are powered by brush motors except those ending with the letter “N”

T Series Actuator (line voltage)



180 in.lb. (20 Nm) torque



PRIMARY USES FOR THESE ACTUATORS

- ◆ medium size air handler dampers
- ◆ 1/4 turn valves

These quarter turn actuators may be directly coupled to either a 3/4 inch round or 5/8 inch square jack shaft or remotely mounted using an adaptor kit. All actuators are bi-directional. Enerdrive actuators are also bi-directional under fail safe conditions. The stroke may be limited to less than 90° mechanically in digital models (with SLD sold separately) and electronically in Multi Signal models.

GENERAL SPECIFICATIONS

Power Supply:	24Vac, 30Vdc, 120Vac, and/or 240Vac Depending upon the Model
Power Consumption:	Peak at Start-up: 10VA to 45VA at Line Voltage Depending upon the Model Operating at Full Load: 10VA to 20VA at Line Voltage Depending upon the Model
Wire Size:	18 AWG (0.8 mm ²) Minimum
Electrical Connections:	Two 7/8 in. (22.2 mm) Knock Outs, Screw Terminals
Control Signals:	Digital (TT): 2 Wire or 3 Wire 2 Position and/or 4 Wire 3 Point Floating Depending upon the Model Multi Signal (TM): ANALOG: A) 2-10Vdc; or B) May be Externally Wired with a 500 Ohm Resistor which is Supplied for 4-20mA, Zero & Span Adjustable PULSE WIDTH MODULATION: Time Base of 0.1 to 5 sec/20mS Resolution or 0.1 to 25 sec/100mS Resolution Selected by Dip Switch Position SWITCH 24Vac: Triac or Dry Contact, 40mA Max. Switching Current SWITCH COMMON: NPN Transistor, SCR, Triac or Dry Contact 75mA Max. Switching Current DIGITAL: 3 Wire 2 Position or 4 Wire 3 Point Floating
Torque:	180 in.lb. (20 Nm) at Rated Voltage
Direction & Time of Rotation:	Reversible, 40 to 50 sec or 60 to 85 sec, 0-180 in.lb. (0-20 Nm) Depending upon the Model
Ambient Temperature:	0°F to +122°F (-18°C to +50°C)
Feedback Potentiometer:	In Digital (TTXX5): Voltage (0-12Vdc max) In Multi Signal (TM): 4-20mA Output (May be wired for a 2-10Vdc signal)
Fail Safe (Enerdrive) Rating:	Models Ending in 60, 65, 80 or 60N: 180 in.lb. (20 Nm)
Enerdrive Response Time:	60 to 85 sec Closure Through 90°, 0-180 in.lb. (0-20 Nm)
Auxiliary Switches:	Models Ending in 20, 80 or 20N: 2 Mechanical Switches, Fixed at 10° & 80°
Auxiliary Switch Rating:	5 Amp Resistive, 250Vac
Electronic Enclosure:	Flammability rating UL94-5V Option W: IP65 equivalent to Nema type 4 enclosure with special protection against chemicals

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Actuator Models	Power			Control Signals					Time in sec Thru 90° Arc	Actuator Features				
	Nom. Supply	Consumption		Digital		Multi Signal				Feed Back	Auto Stroke	Zero & Span	Fail Safe (Enerdrive)	2 Mech. Aux. Switches
		Start Up	Full Load	2 POS	3 PT FLT	2-10 Vdc	4-20 mA	PWM						
for line voltage applications														
TT300	120Vac 240Vac	10VA	10VA	◆	◆				60 to 85					
TT305	120Vac 240Vac	10VA	10VA	◆	◆				60 to 85	◆				
TT320	120Vac 240Vac	10VA	10VA	◆	◆				60 to 85					◆
TT360	120Vac 240Vac	30VA	10VA	◆	◆				60 to 85				◆	
TT365	120Vac 240Vac	30VA	10VA	◆	◆				60 to 85	◆			◆	
TT380	120Vac 240Vac	30VA	10VA	◆	◆				60 to 85				◆	◆
TM300	24Vac 30Vdc 120Vac 240Vac	10VA	10VA	◆	◆	◆	◆	◆	60 to 85	◆	◆	◆		
TM320	24Vac 30Vdc 120Vac 240Vac	10VA	10VA	◆	◆	◆	◆	◆	60 to 85	◆	◆	◆		◆
TM360	24Vac 30Vdc 120Vac 240Vac	30VA	10VA	◆	◆	◆	◆	◆	60 to 85	◆	◆	◆	◆	
TM380	24Vac 30Vdc 120Vac 240Vac	30VA	10VA	◆	◆	◆	◆	◆	60 to 85	◆	◆	◆	◆	◆
TM100N	24Vac 30Vdc 120Vac	20VA	20VA	◆	◆	◆	◆	◆	40 to 50	◆	◆	◆		
TM200N	24Vac 30Vdc 240Vac	20VA	20VA	◆	◆	◆	◆	◆	40 to 50	◆	◆	◆		
TM120N	24Vac 30Vdc 120Vac	20VA	20VA	◆	◆	◆	◆	◆	40 to 50	◆	◆	◆		◆
TM220N	24Vac 30Vdc 240Vac	20VA	20VA	◆	◆	◆	◆	◆	40 to 50	◆	◆	◆		◆
TM160N	24Vac 30Vdc 120Vac	45VA	20VA	◆	◆	◆	◆	◆	40 to 50	◆	◆	◆	◆	
TM260N	24Vac 30Vdc 240Vac	45VA	20VA	◆	◆	◆	◆	◆	40 to 50	◆	◆	◆	◆	
TM180N	24Vac 30Vdc 120Vac	45VA	20VA	◆	◆	◆	◆	◆	40 to 50	◆	◆	◆	◆	◆
TM280N	24Vac 30Vdc 240Vac	45VA	20VA	◆	◆	◆	◆	◆	40 to 50	◆	◆	◆	◆	◆

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