VZTORQUE™

QUARTER TURN & 360 DEGREE FAIL SAFE EXPLOSION PROOF ELECTRIC ACTUATOR

Features



- Three Models:
  - Quarter Turn
  - 360-Degree Turn
  - Multi Turn [covered in another brochure]
- Heavy duty motor with thermal overload protection
- Rugged IP68/NEMA 4X aluminum alloy housing
- C3 level corrosion resistance with powder coated, 1000 hours salt spray
- CSA Class 1 DIV 1 GRP C and D, T5
- Over torque Protection switch
- Standard ISO5211 direct installation
- Manual override with handwheel
- Installation at any angle
- Heater for eliminating condensation
- Failsafe via Lithium Battery
- Self-locking high strength gear train to keep last known position
  - High Speed models are NOT self-locking except for VZT-2655-10

Description

VZT series actuators are battery backup failsafe electric actuators. When power is lost to the actuator, the battery will drive the actuator to preset fail safe position such as full open or full close. Fail position is field selectable. Actuators are field selectable as on/off control or 4-20ma control except on the VZT-442-20. On/off control requires a signal to open or close actuator and will move to the failsafe position on loss of 24VDC power. If using 4-20ma control, the actuator will move to the failsafe position on loss of 4-20ma and/or on loss of 24VDC power.

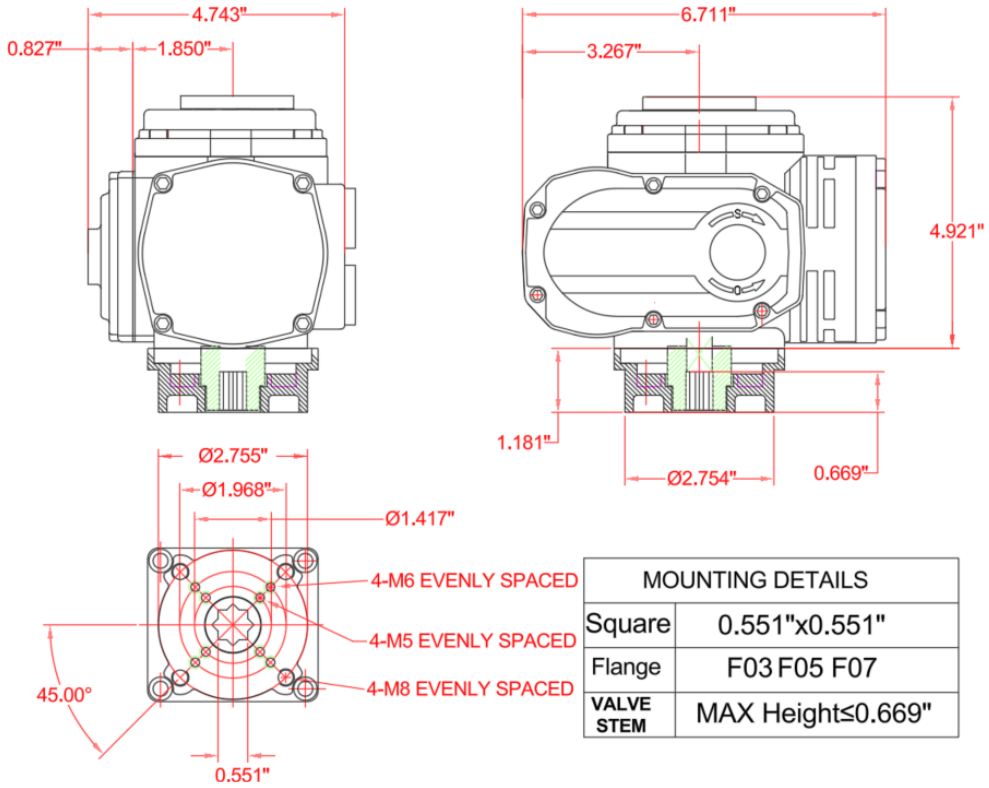
Specifications

STANDARD Speed Type	VZT-442-20	VZT-885-15	VZT-1770-15	VZT-3540-30
Output Torque [in-lbs]	442	885	1,770	3,540
No Load Stroke Time [sec]	20@90 deg	15@90 deg	15@90 deg	22@90 deg
Full load Stroke Time [sec]	30@90 deg	30@90 deg	30@90 deg	30@90 deg
Rotation Angle	0-110° or 0-360°	0-110°	0-110°	0-110°
Motor [watts]	10	40	40	90
Power	24DC Standard (12VDC and 120VAC Conversion Kits are available)			
Rated Current [amps@24VDC]	1.5	2.2	3.1	7.8
Total Weight [lbs]	6.6	11	12.1	20.9
Control Type	On/Off or 4-20 Modulating/Modbus			
Output Signal	On/Off has Dry Contacts, Modulating has Dry Contacts and 4-20ma/Modbus			
Basic Error/Reciprocating Error	not more than ±1% (Modulating Unit)			
Dead Space	0.5%-5.0% adjustable (Modulating Unit)			
Repeating Error in Actuator	≤1% (Modulating Unit)			
Insulating Resistance	100MΩ/500VDC (Modulating Unit)			
Withstand Voltage Class	1500VAC 1 minute (Modulating Unit)			
Electric Interface	2 x ½" NPT			
Ambient Temperature	-25℃~+55℃			
	360° models must be ordered as VZT360			

STANDARD Speed Type	VZT-5310-45	VZT-8850-50	VZT-13276-60	VZT-26550-140
Output Torque [in-lbs]	5,310	8,850	13,276	26,550
No Load Stroke Time [sec] DC	26@90 deg	39@90 deg	48 @90 deg	136@90 deg
Full load Stroke Time [sec] DC	45@90 deg	50@90 deg	60@90 deg	170@90 deg
Rotation Angle	0-110°	0-110° or 0-360°	0-110° or 0-360°	0-110° or 0-360°
Motor [watts] DC	90	113	113	113
Power	24DC Standard (12VDC and 120VAC Conversion Kits are available)			
Rated Current [amps@24VDC]	8.0	6.1	6.1	7.5
Total Weight [lbs]	22	32	46	47
Control Type	On/Off or 4-20 Modulating/Modbus			
Output Signal	On/Off has Dry Contacts, Modulating has Dry Contacts and 4-20ma/Modbus			
Basic Error/Reciprocating Error	not more than ±1% (Modulating Unit)			
Dead Space	0.5%-5.0% adjustable (Modulating Unit)			
Repeating Error in Actuator	≤1% (Modulating Unit)			
Insulating Resistance	100MΩ/500VDC (Modulating Unit)			
Withstand Voltage Class	1500VAC 1minute (Modulating Unit)			
Electric Interface	2 x ½" NPT			
Ambient Temperature	-25℃~+55℃			

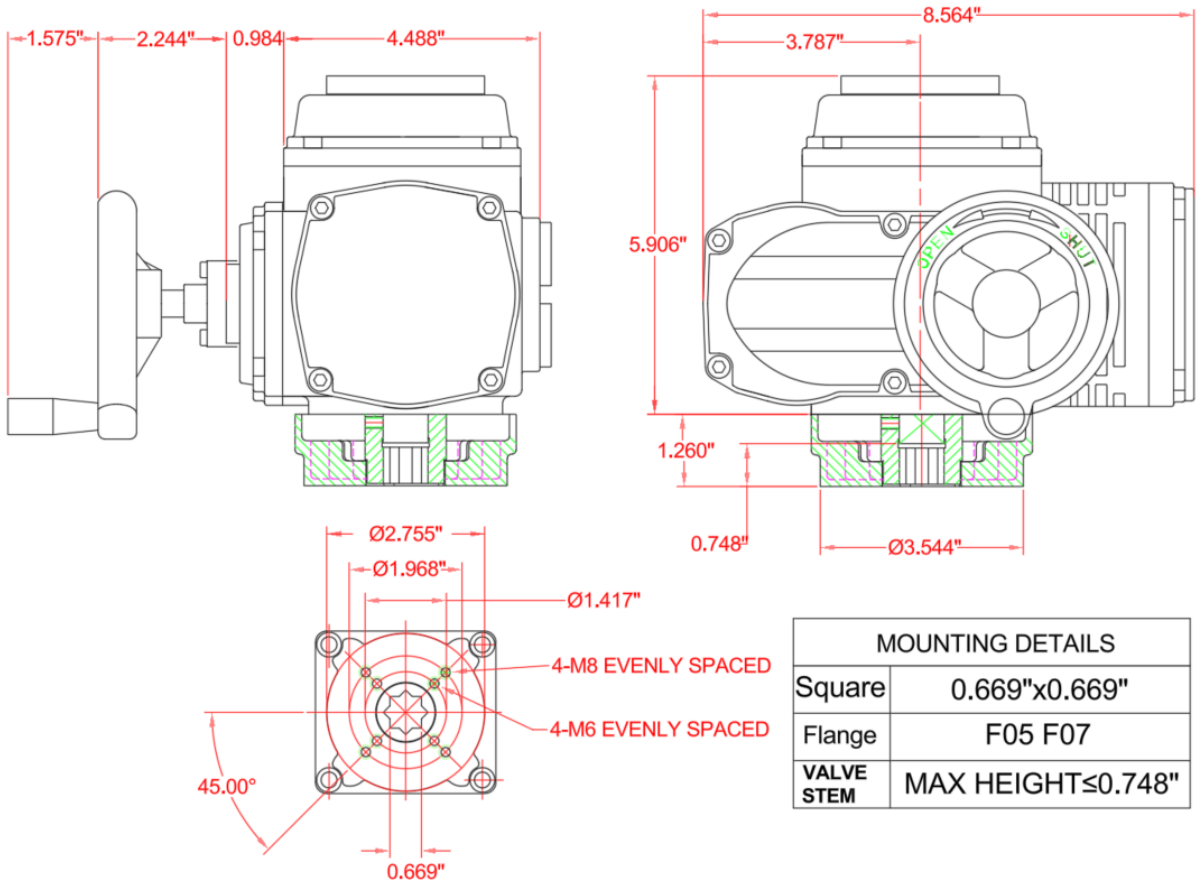
FAST Speed Type	VZT-442-5	VZT-1770-5	VZT-2655-10	VZT-5310-13
Output Torque [in-lbs]	442	1,770	2,655	5,310
No Load Stroke Time [sec] DC/AC	2.2@90 deg	4.7 @90 deg	9@90 deg	13@90 deg
Full load Stroke Time [sec] DC/AC	4 @90 deg	5 @90 deg	10 @90 deg	15@90 deg
Rotation Angle	0-110°	0-110°	0-110° or 0-360°	0-110° or 0-360°
Motor [watts] DC/AC	30	90	90	113
Power	24DC Standard (12VDC and 120VAC Conversion Kits are available)			
Rated Current [amps@24VDC]	0.8	8.0	7. 8	6.8
Total Weight [lbs]	12	22	30	32
Control Type	On/Off or 4-20 Modulating/Modbus			
Output Signal	On/Off has Dry Contacts, Modulating has Dry Contacts and 4-20ma/Modbus			
Insulating Resistance	100MΩ/500VDC (Modulating Unit)			
Withstand Voltage Class	1500VAC 1minute (Modulating Unit)			
Electric Interface	2 x ½" NPT			
Ambient Temperature	-25℃~+55℃			
Fast models excluding VZT-2655-10 are NOT self-locking & NOT suitable for some butterfly valves				

VZT-442-20



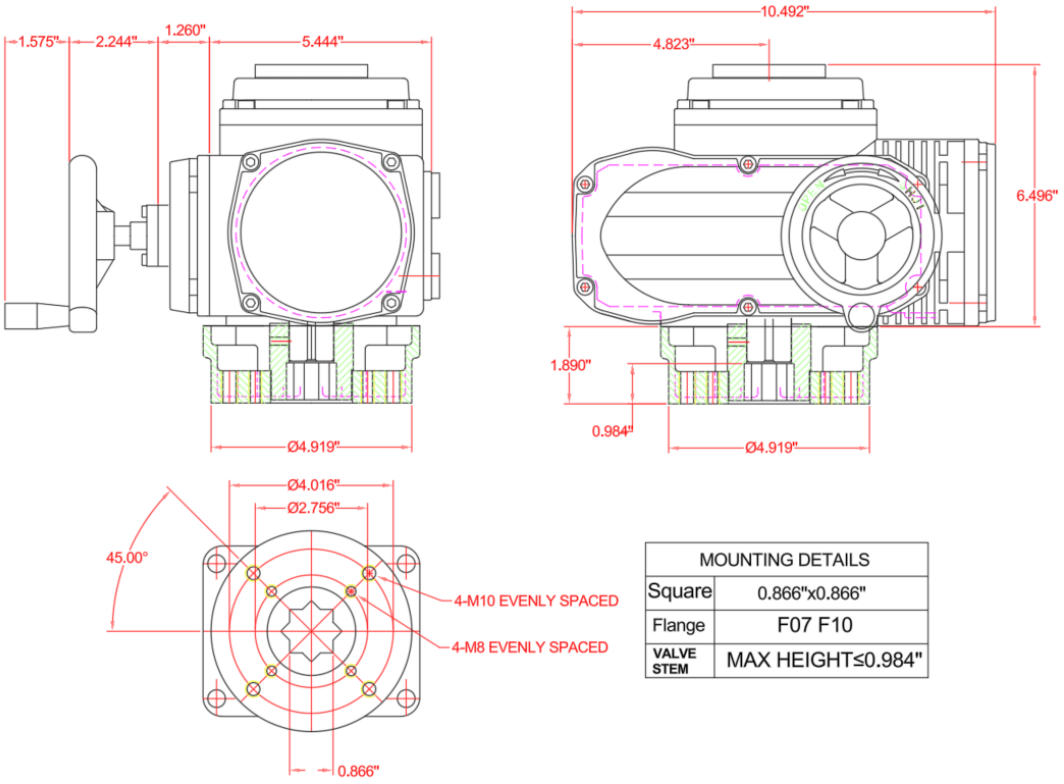
MOUNTING DETAILS	
Square	0.551"x0.551"
Flange	F03 F05 F07
VALVE STEM	MAX Height≤0.669"

VZT-442-5, VT-885 AND VZT-1770-15



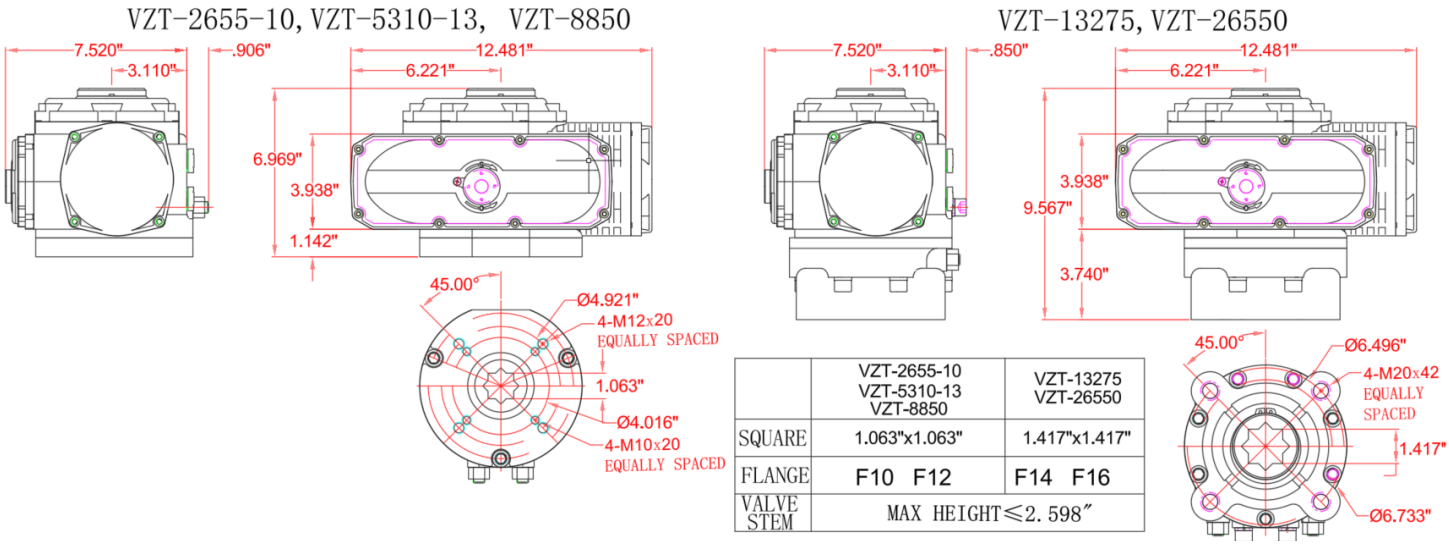
MOUNTING DETAILS	
Square	0.669"x0.669"
Flange	F05 F07
VALVE STEM	MAX HEIGHT≤0.748"

VZT-1770-5, VT-3540, AND VZT-5310-45



MOUNTING DETAILS	
Square	0.866"x0.866"
Flange	F07 F10
VALVE STEM	MAX HEIGHT≤0.984"

VT-8850 VZT-13276 VZT-26550 STANDARD SPEED AND VZT-2655-10 VZT-5310-13



	VZT-2655-10 VZT-5310-13 VZT-8850	VZT-13275 VZT-26550
SQUARE	1.063"x1.063"	1.417"x1.417"
FLANGE	F10 F12	F14 F16
VALVE STEM	MAX HEIGHT≤2.598"	

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