

## FAIL SAFE EXPLOSION PROOF ELECTRIC ACTUATOR

### Features:

- Quarter turn operation (See specs below for models capable of 360-degree rotation. 360-degree models would be the VZTF series).
- Heavy duty motor with thermal overload protection.
- Rugged IP68/NEMA 4X aluminum alloy housing.
- C3 level corrosion resistance with powder coated, 1000 hours of salt spray.
- CSA CLS 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.
- Fail safe via Supercapacitor on VZT-1770 and smaller or Lithium Battery on larger sizes.
- 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 supercapacitor or battery backup failsafe electric actuators. When power is lost to the actuator, the supercapacitor or 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

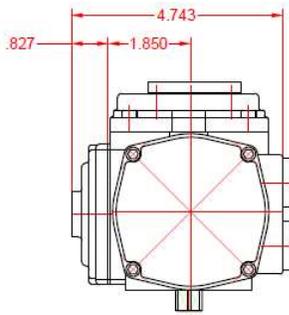
Standard Speed Type	VZT-442-20	VZT-885-15	VZT-1770-15	VZT-3540-30
Output Torque in-lbs.	442	885	1,770	3,540
No Load Stroke Time sec	20	15	15	22
Full load Stroke Time sec	30	30	30	30
Rotation Angle	0-110° or 0-360°	0-110°	0-110°	0-110°
Motor Watts	10	40	40	90
Power	24DC Standard (12VDC and 120VAC Conversion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

<b>Standard Speed Type</b>	<b>VZT-5310-45</b>	<b>VZT-8850-50</b>	<b>VZT-13276-60</b>	<b>VZT-26550-140</b>
Output Torque in-lbs.	5,310	8,850	13,276	26,550
No Load Stroke Time sec DC	26	39	48	136
Full load Stroke Time sec DC	45	50	60	170
Rotation Angle	0-110°	0-110° or 0-360°	0-110°	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	2.2	6.1	7.5
Total Weight	22 lbs.	32 lbs.	46 lbs.	47 lbs.
Control Type	On/Off or 4-20 Modulating/Modbus			
Output Singal	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	100M Ω/500VDC (Modulating Unit)			
Withstand Voltage Class	1500VAC 1minute (Modulating Unit)			
Electric Interface	2 x ½" NPT			
Ambient Temperature	-25°C~+55°C			

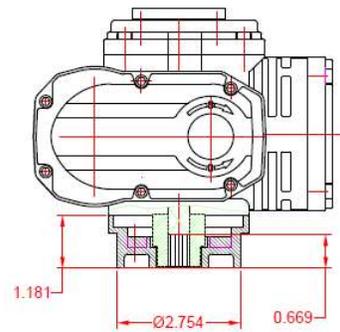
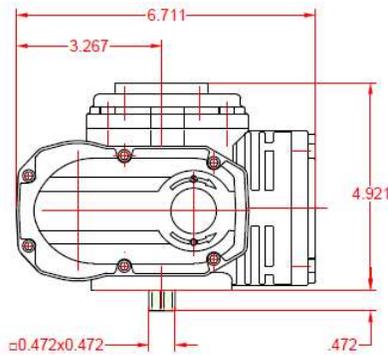
<b>FAST SPEED Type</b>	<b>VZT-442-5</b>	<b>VZT-1770-5</b>	<b>VZT-2655-10</b>	<b>VZT-5310-13</b>
Output Torque in-lbs.	442	1,770	2,655	5,310
No Load Stroke Time sec DC/AC	2.2@90 deg	4.7 @90 deg	9@90 deg	13@90 deg
Full load Stroke Time sec DC/AC	4 @90 deg	5 @90 deg	10 @90 deg	15@90 deg
Rotation Angle	0-110°	0-110°	0-110°	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	12	22	30	32
Control Type	On/Off or 4-20 Modulating/Modbus			
Output Singal	On/Off has Dry Contacts, Modulating has Dry Contacts and 4-20ma/Modbus			
Insulating Resistance	100M Ω/500VDC (Modulating Unit)			
Withstand Voltage Class	1500VAC 1minute (Modulating Unit)			
Electric Interface	2 x ½" NPT			
Ambient Temperature	-25°C~+55°C			

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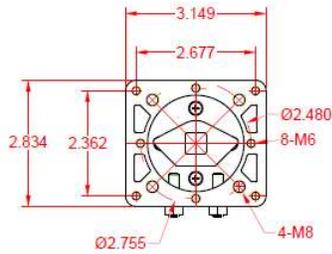
**VZT-442 STANDARD SPEED - Dimensions are inches**



Standard Type

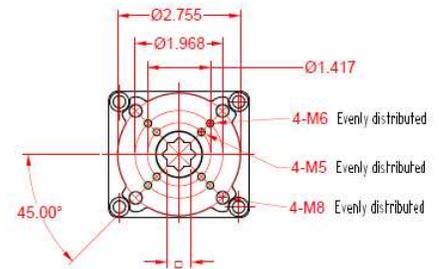


Direct Installation Type

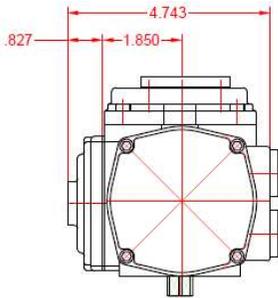


Parameters for direct installation	
Square	$\pm 0.354 \times 0.354 \pm 0.433 \times 0.433 \pm 0.551 \times 0.551$
Flange	F03 F05 F07
Valve stem	Height $\leq 0.669$

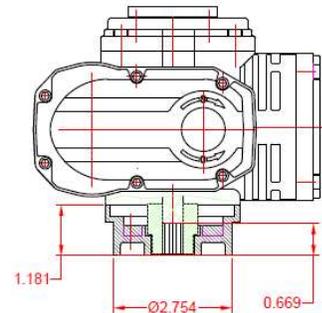
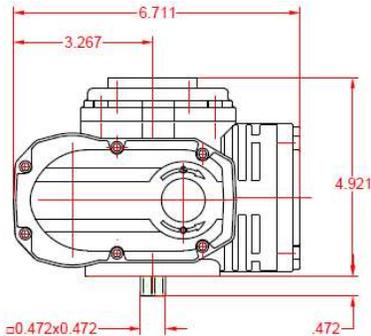
Bolt Conversion		
Metric	Imperial	
	UNF	UNC
M5	10-32	10-24
M6	1/4-28	1/4-20
M8	5/16-24	5/16-18



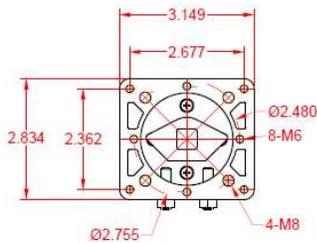
**VT-885 AND VZT-1770 STANDARD - Dimensions are inches**



Standard Type

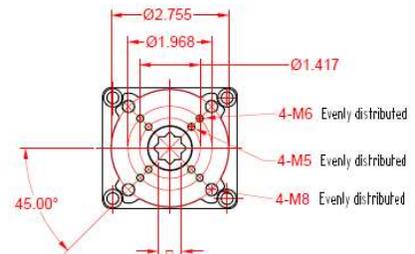


Direct Installation Type



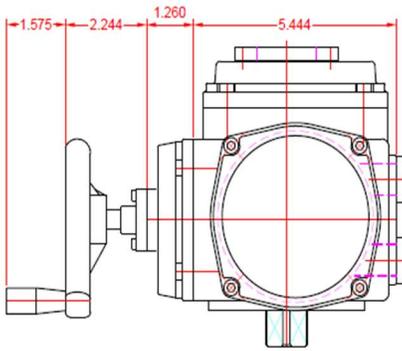
Parameters for direct installation	
Square	$\pm 0.354 \times 0.354 \pm 0.433 \times 0.433 \pm 0.551 \times 0.551$
Flange	F03 F05 F07
Valve stem	Height $\leq 0.669$

Bolt Conversion		
Metric	Imperial	
	UNF	UNC
M5	10-32	10-24
M6	1/4-28	1/4-20
M8	5/16-24	5/16-18

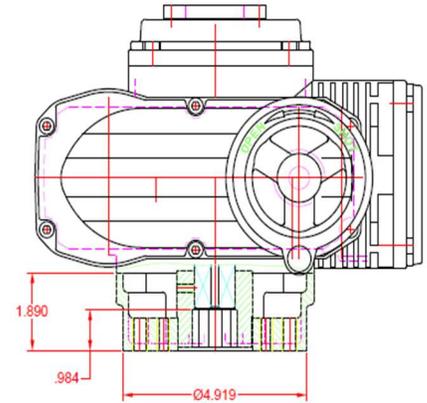
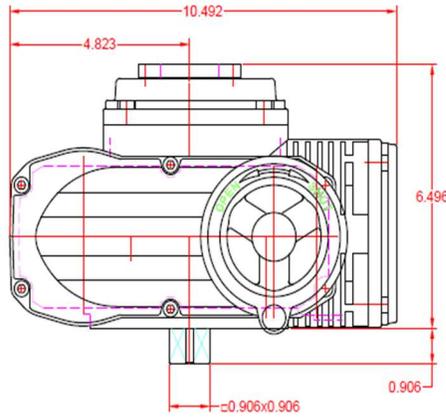


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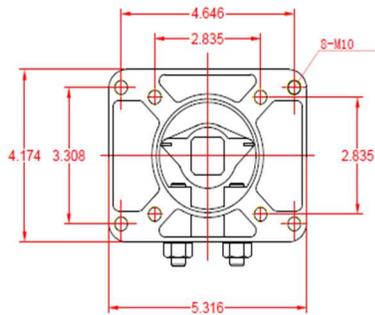
**VT-3540 AND VZT-5310 STANDARD SPEED & VZT-1770 FAST SPEED - Dimensions are inches**



Standard Type

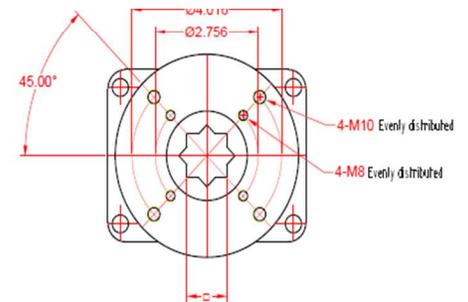


Direct Installation Type



Parameters for direct installation		
Square	0.669x0.669=0.866x0.866	
Flange	F07 F10	
Valve stem	Height≤0.984	

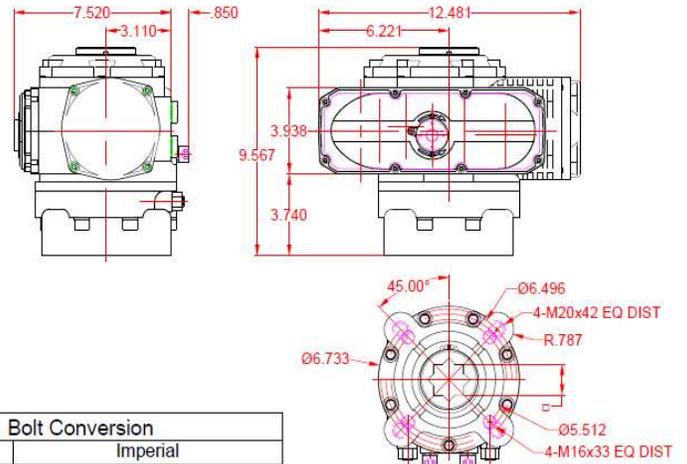
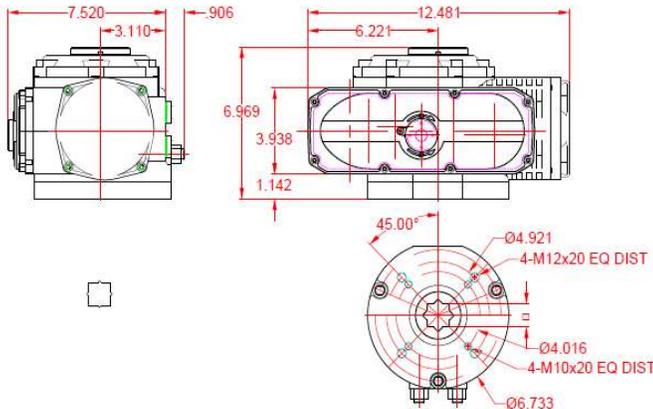
Bolt Conversion		
Metric	Imperial	
	UNF	UNC
M8	5/16-24	5/16-18
M10	3/8-24	3/8-16



**VT-8850 VZT-13276 VZT-26550 STANDARD SPEED AND FAST SPEED VZT-2655 VZT-5310 - Dimensions are inches**

VZT-8850

VZT-13275, VZT-26550, & FAST SPEED VZT-5310



	VZT-8850	VZT-13275/26550
Square	0.866x0.866 1.063x1.063	1.063x1.063 1.417x1.417
Flange	F10 F12	F14 F16
Valve Stem	Length≤2.598	Length≤2.598

Bolt Conversion		
Metric	Imperial	
	UNF	UNC
M10	3/8-24	3/8-16
M12	7/16-20	7/16-14
M16	5/8-18	5/8-11
M20	3/4-16	3/4-10

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**FOR INQUIRES EMAIL VanZandt Controls,**

[RFQCanyon@vzcontrols.com](mailto:RFQCanyon@vzcontrols.com)

[RFQFarmington@vzcontrols.com](mailto:RFQFarmington@vzcontrols.com)

[RFQTulsa@vzcontrols.com](mailto:RFQTulsa@vzcontrols.com)

[RFQFortWorth@vzcontrols.com](mailto:RFQFortWorth@vzcontrols.com)

[RFQOdessa@vzcontrols.com](mailto:RFQOdessa@vzcontrols.com)

[RFQSanAntonio@vzcontrols.com](mailto:RFQSanAntonio@vzcontrols.com)

[RFQRifle@vzcontrols.com](mailto:RFQRifle@vzcontrols.com)

[RFQHouston@vzcontrols.com](mailto:RFQHouston@vzcontrols.com)

[RFQCarlsbad@vzcontrols.com](mailto:RFQCarlsbad@vzcontrols.com)

[RFQLongview@vzcontrols.com](mailto:RFQLongview@vzcontrols.com)

[RFQHobbs@vzcontrols.com](mailto:RFQHobbs@vzcontrols.com)

[RFQGreeley@vzcontrols.com](mailto:RFQGreeley@vzcontrols.com)

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