

# VSI<sup>®</sup>



QUARTER TURN  
SPRING RETURN  
ELECTRIC ACTUATOR

## VS-QT-SR SERIES ELECTRIC ACTUATOR



# VS-QT-SR QUARTER-TURN SPRING-RETURN ELECTRIC ACTUATOR



The VS-QT-SR series spring return electric actuator is designed for quarter-turn operations and incorporates a mechanical spring module for secure reset functionality. In the presence of power, the spring module stores kinetic energy, ready to be released in the event of power loss. This released energy then drives the actuator, ensuring the valve returns to its predetermined safe position, whether fully open or fully closed. Notably, the reset speed is meticulously regulated, guaranteeing a safe and seamless reset process to prevent any leakage or environmental hazards within the pipeline.

Additionally, the VS-QT-SR series can be augmented with an optional manual over-ride device. This feature enables manual operation of the actuator for valve movement. Upon power restoration, the over-ride automatically disengages, eliminating the need for manual declutching.

## Product Features

### Safety and Maintenance:

- Trouble-free operation without maintenance.
- 90° stroke, efficient and effective spring drive.
- Smooth and stable operation during an emergency without impacting the pipeline.

### Location detection:

- Ease of Position limit switch setting

### Operational safety:

- Provide a safe and efficient mechanical solution when opening/closing valves in emergency situations.
- The mechanical spring module stores kinetic energy and converts it into the torque required to return the valve to the preset position.

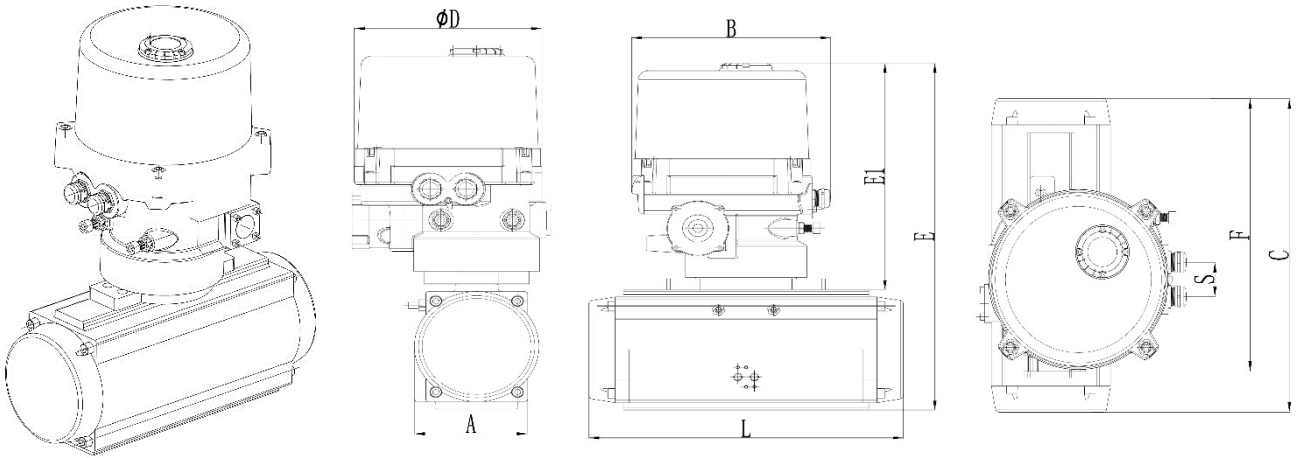
### Replaceable connectors:

- The connecting flange comply with ISO5211 standards. A variety of connection sizes are available to suit different customer needs.

## Technical Specifications

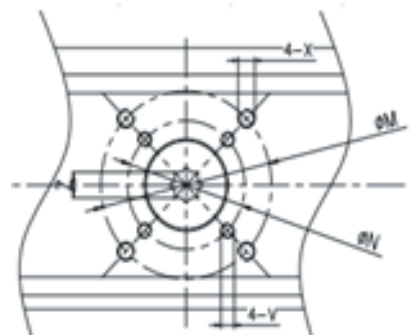
MODEL	VS-QT-SR50	VS-QT-SR100	VS-QT-SR200	VS-QT-SR300
Electric Torque range	200NM→100NM	150NM→100NM	400NM→300NM	350NM→200NM
Spring Torque Range	100NM→50NM	200NM→100NM	300NM→200NM	400NM→250NM
Power(W)	45	45	80	80
Electric Operating Time(S)	≤25	≤25	≤25	≤25
Spring return Time(S)	≤8	≤8	≤8	≤8
Mounting Flange (ISO5211)	F07/F10	F10/F12	F10/F12	F10/F12
Power Supply	1Ph/220VAC (Option : 1Ph/110VAC)			
Motor Duty (On/OFF)	S2, 15 Minutes			
Motor	Squirrel Cage Induction Motor			
Limit Switches	10A@250VAC , 2 each for Open/Close position			
Travel	90°+5°			
Mechanical Limit	External mechanical stopper			
Thermal protection	Build-in overheat protection device /125°C±5°C			
Position indicator	Mechanical Indicator			
Heater	5W (110/220VAC) , Anti-condensation			
Electrical interface	2×3/4"NPT (Optional : 2×3/4"PT or 2×M20 )			
Lubricant	High Pressure Grease			
Connection	Flexible pressure lock terminal block			
Ambient Temperature	Standard, -20°C~+70°C			
Ambient Humidity	≤ 90% RH			
Shock Resistance	XYZ 10g, 02~34Hz, 30 Minutes			
Body Material	Aluminium Alloy			
External Coating	Epoxy polyester powder coating			
IP rating	IP67, NEMA 4/4X & 6			
Optional	IP68, ExdIIBT6			

## Product Dimensions



Model	A	B	C	ØD	E	E1	F	L	S	Weight/Kg
VS-QT-SR50	135	247	320	222	490	315	302	302	50	33
VS-QT-SR100	142	247	320	222	490	315	302	398	50	33
VS-QT-SR200	161	287	418	262	569.5	352	459	456	50	53
VS-QT-SR300	189	287	418	262	569.5	352	459	534	50	53

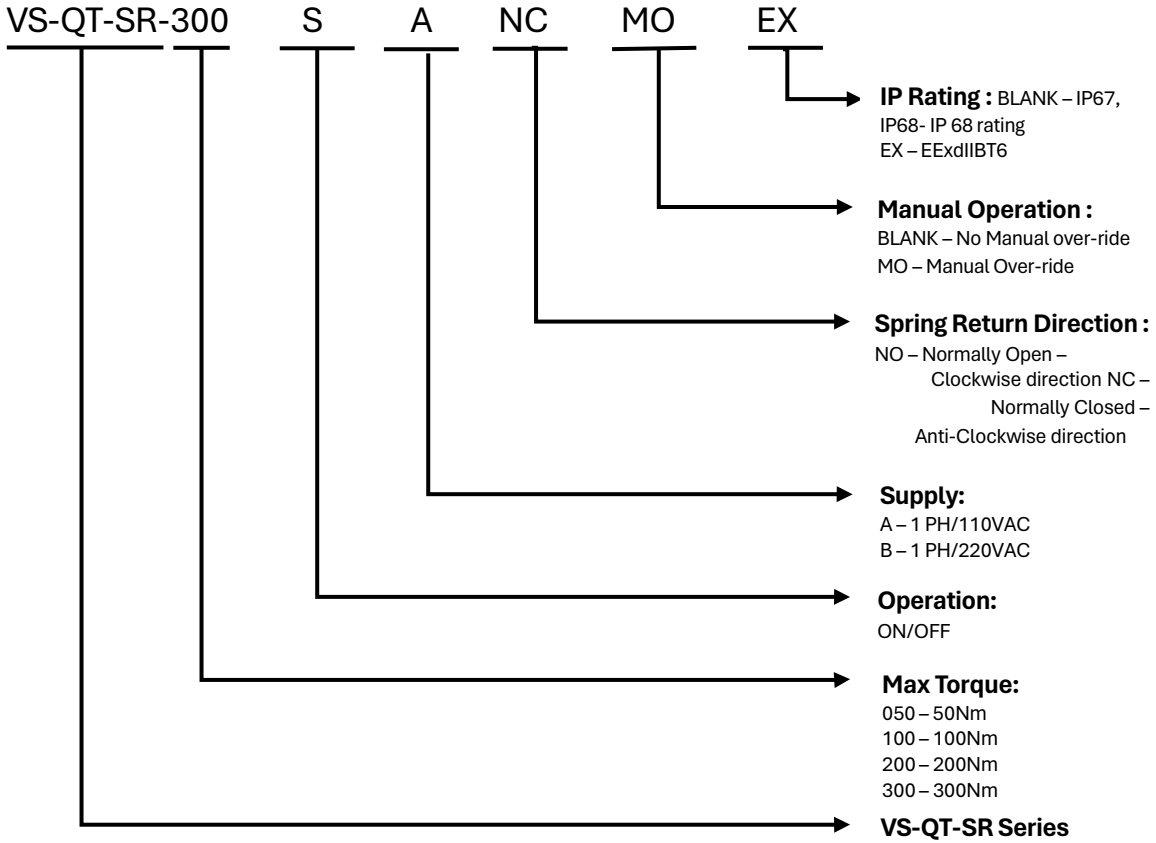
## Installation Dimension



UNIT : mm

Model	ØM	ØN	V	X	Z	Depth
VS-QT-SR50	102	70	M8*13	M10*16	22	25
VS-QT-SR100	125	102	M10*16	M12*20	27	30
VS-QT-SR200	125	102	M10*16	M12*20	27	30
VS-QT-SR300	140	N/A	N/A	M16*20	36	40

## ORDERING INFORMATION



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