

VSI[®]



QUARTER TURN ACTUATOR

VS-QT SERIES ELECTRIC ACTUATOR





About VSI

Valve Solutions, Inc. (VSI) originated in Alpharetta, GA, USA, in 1995. Our primary focus is crafting actuation control products for both Commercial and Industrial sectors. Collaborating closely with valve companies, we deliver automated valve packages to some of the globe's leading controls enterprises.

Our range of electric actuators undergoes comprehensive development, manufacturing, and testing within our own facilities. These products find extensive application across diverse industries including Oil & Gas, HVAC, Marine, Mining, Pulp & Paper, Food & Beverage, Power, Water & Wastewater, Pharmaceutical, and Chemical sectors worldwide.

VSI Actuators holds numerous invention patents, along with new utility patents and software copyrights. Our commitment revolves around "Quality-driven, Technical innovation, Reliable service," ensuring the provision of optimal actuator solutions to the market.

VS-QT

SERIES ELECTRIC ACTUATOR



○ Actuator Controls

- > On-off and Modulating.
- > Options are available for local controller that facilitate easy operation in the field, including features like Intelligent controls

○ Removable motor

- > Removable squirrel caged induction motor provides Easy of maintenance .

○ Terminal block

- > Spring-loaded push-type terminal blocks ensure a secure wiring connection, even under severe vibrations.

○ Double wormgear

- > Designed for low noise operation and self-locking capability to maintain the valve's position against reverse torque.

○ Space heater

- > Minimize condensation due to the temperature difference.

○ Torque switch

- > Auxiliary limit switch and torque switch are available to protect actuator from damage caused by overload.

○ Mechanical position indicator

- > Easily check the position of your valve at a glance.

○ Handwheel

- > Manual override handwheel for emergency manual operation.

○ Mounting base

- > Flange mountings according to ISO5211 standard with removable bushing.

○ Multi-Enclosure

- > Explosion proof, Weather proof and watertight option.

VS-QT Series Selection Table



MODEL	VS-QT0		VS-QT1		VS-QT2			VS-QT3	
	-05	-6	-10	-16	-20	-24	-35	-50	
									
Output Torque (Nm)	50	60	100	160	200	240	350	500	
Operation Time (s)	21	26	26	28	28	28	32	32	
OPTIONS	Explosion Proof	✗	✓	✓	✓	✓	✓	✓	✓
	Modulating Duty	✗	✓	✓	✓	✓	✓	✓	✓
	Local Control Unit	✗	✓	✓	✓	✓	✓	✓	✓
	Intelligent LCU	✗	✓	✓	✓	✓	✓	✓	✓
	Fieldbus Communications	✗	✓	✓	✓	✓	✓	✓	✓
	Bluetooth / GPRS	✗	✓	✓	✓	✓	✓	✓	✓
	LED Display	✗	✓	✓	✓	✓	✓	✓	✓
MODEL	VS-QT4		VS-QT4JS						
	-80	-110	-200	-250	-300	-400	-600		
									
Output Torque (Nm)	800	1100	2000	2500	3000	4000	6000		
Operation Time (s)	36	36	110	110	150	180	180		
OPTIONS	Explosion Proof	✓	✓	✓	✓	✓	✓	✓	
	Modulating Duty	✓	✓	✓	✓	✓	✓	✓	
	Local Control Unit	✓	✓	✓	✓	✓	✓	✓	
	Intelligent LCU	✓	✓	✓	✓	✓	✓	✓	
	Fieldbus Communications	✓	✓	✓	✓	✓	✓	✓	
	Bluetooth / GPRS	✓	✓	✓	✓	✓	✓	✓	
	LED Display	✓	✓	✓	✓	✓	✓	✓	



VS-QT Series Model Types



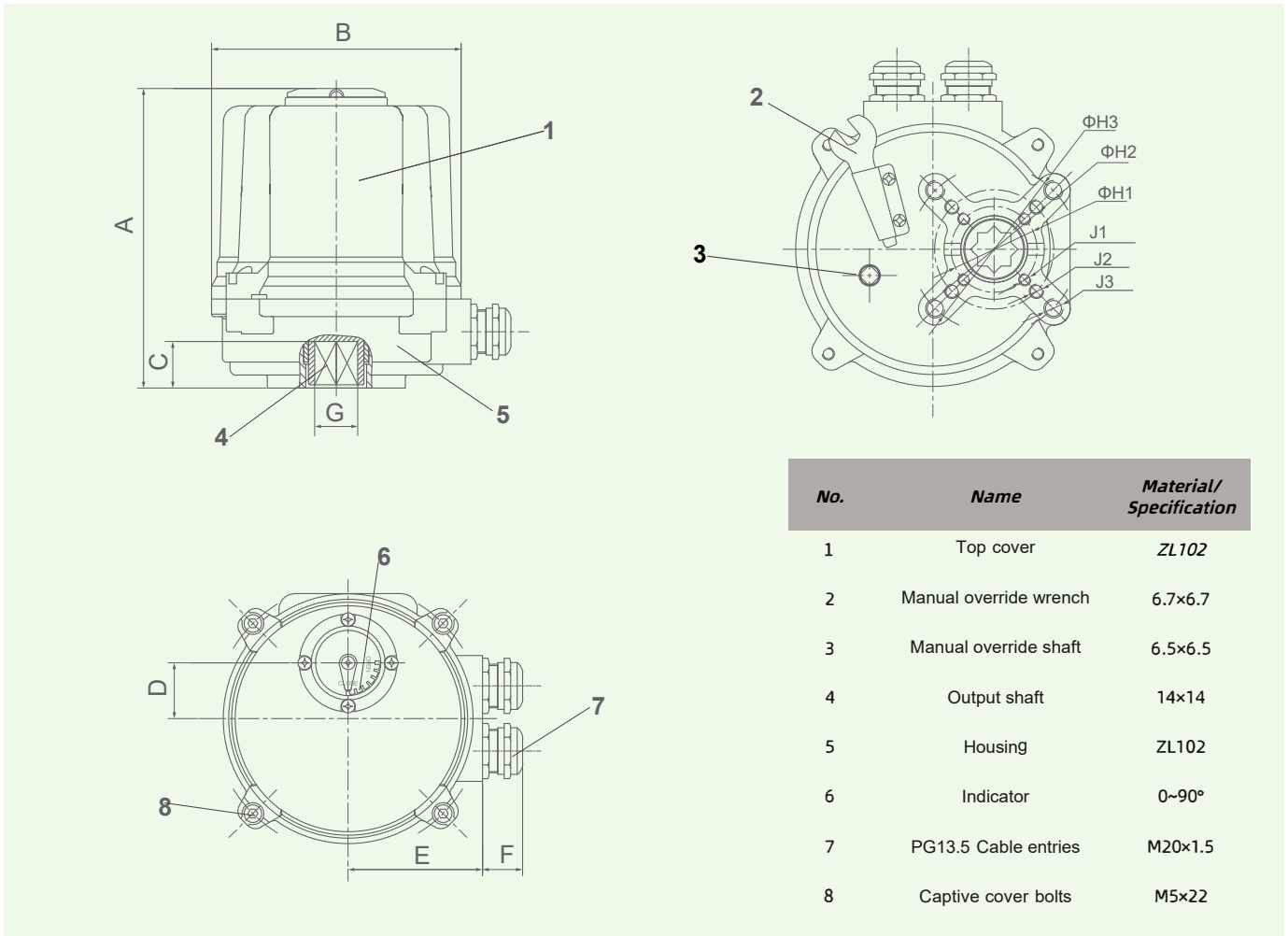
General Specifications

Housing Protection Class	Enclosure protection Std IP67 with option of IP68
Power Supply	220VAC 1 Phase , 380VAC / 400 VAC 3 Phase, 50/60Hz ± 10%. Other Voltage Supply available upon request
Torque Range	50Nm to 6000Nm
Motor	Squirrel Cage induction Motor
Limit Switches	2 X Open/Close SPDT 250VAC 5A
Auxiliary Limit Switches	2 X Open/Close SPDT 250VAC 5A
Torque Switch	Open / Close, SPDT, 250VAC 10A (Except for VS-QT1-06 / 10)
Control	On/Off or Modulating
Mounting Flange	ISO5211 Standard
Stall Protection / Set Temperature	Built in Thermal Protection, Open 120°C±5°C / Close 97°C±5°C
Position Indicator	Continuous mechanical indicator with arrow
Manual Override	De-clutchable
Self-locking	Yes
Mechanical stopper	Yes
Space Heater	30W (110V/220VAC)
Cable Entries	2 X NPT 3/4"
Ambient temperature	-25°C to + 70°C
Options	Bluetooth, Led Indicator, Fieldbus communications
Body Material	Steel, Aluminium Alloy, Alluminium Bronze, Polycarbonate

General Power ratings

MODEL	Max Torque (Nm)	Operation Time (S)	Max Power (W)	Rated Current (A)		Flange (ISO5211)
				220VAC	400VAC	
VS-QT0-5	50	21	10	0.15	0.09	F03/F05/F07
VS-QT1-6	60	26	20	0.45	0.22	F05/F07
VS-QT1-10	100	26	20	0.5	0.22	F05/F07
VS-QT2-16	160	28	40	0.6	0.25	F07/F10
VS-QT2-20	200	28	40	0.6	0.3	F07/F10
VS-QT2-24	240	28	45	0.7	0.35	F07/F10
VS-QT3-35	350	32	60	0.9	0.38	F10/F12
VS-QT3-50	500	32	90	1.3	0.8	F10/F12
VS-QT4-80	800	36	120	1.5	1.1	F12 OR F14
VS-QT4-110	1100	35	180	2.2	1.5	F12 OR F14
VS-QT4JS-200	2000	110	180	2.2	1.5	F14 OR F16
VS-QT4JS-250	2500	110	180	2.2	1.5	F14 OR F16
VS-QT4JS-300	3000	150	180	2.2	1.5	F16/F25
VS-QT4JS-400	4000	180	180	2.2	1.5	F16/F25
VS-QT4JS-600	6000	180	180	2.2	1.5	F16/F25/F30

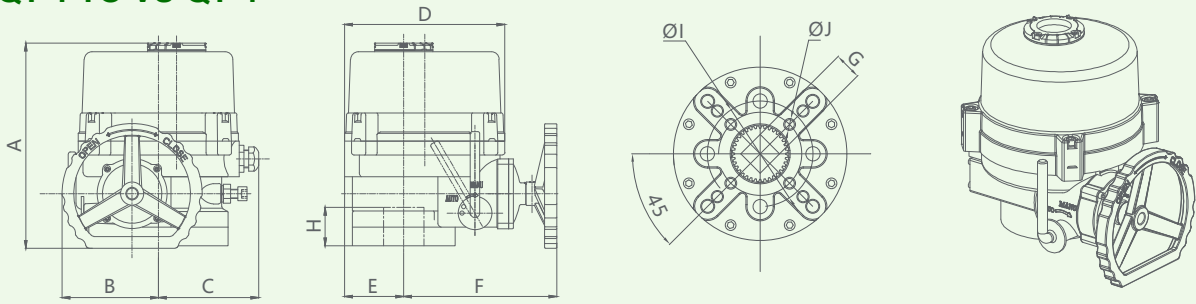
VS-QT-0 Dimensions



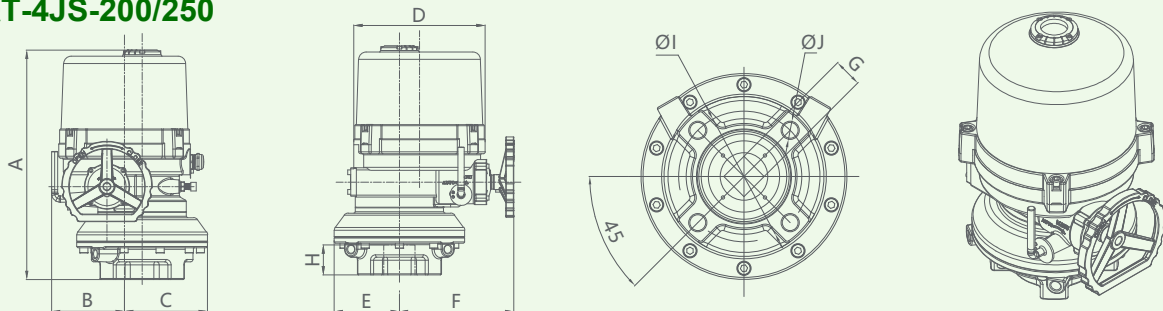
No.	Name	Material/ Specification
1	Top cover	ZL102
2	Manual override wrench	6.7×6.7
3	Manual override shaft	6.5×6.5
4	Output shaft	14×14
5	Housing	ZL102
6	Indicator	0~90°
7	PG13.5 Cable entries	M20×1.5
8	Captive cover bolts	M5×22

Model	A	ØB	C	D	E	F	G	ØH1	ØH2	ØH3	J1	J2	J3
VS-QT0-5	138	Ø115	21	26	62	20	11*11 14*14	Ø36	Ø50	Ø70	4-M5 DEPTH 10	4-M6 DEPTH 10	4-M8 DEPTH 10

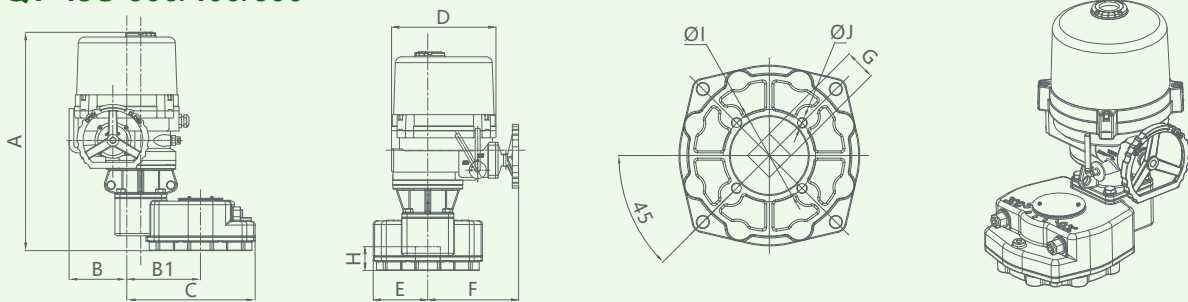
VS-QT-1 TO VS-QT-4



VS-QT-4JS-200/250

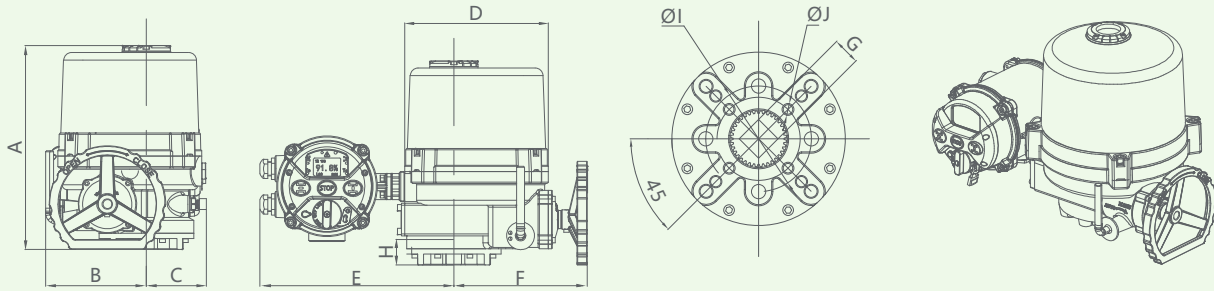


VS-QT-4JS-300/400/600

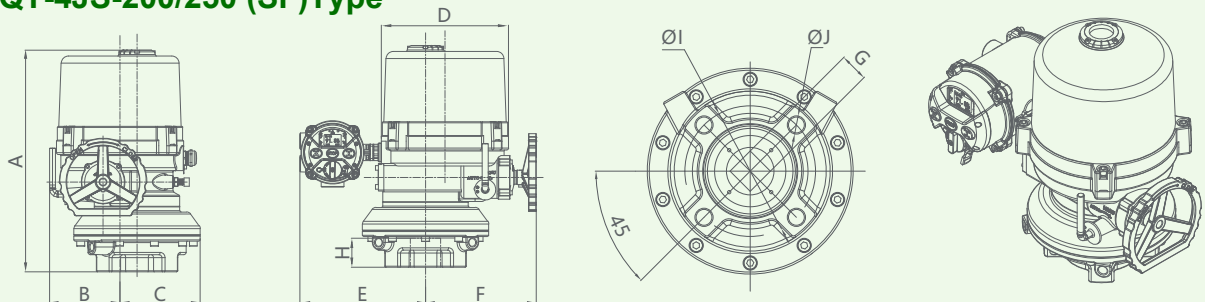


Model	A	B	B1	C	D	E	F	G	H	ØI	J
VS-QT-1-06	229	91	-	104	157	48	167	11*11 14*14	42	Ø50	4-M6
VS-QT-1-10	229	91	-	104	157	48	167	17*17	42	Ø70	4-M8
VS-QT-2-16	261	124	-	129	206	76	197	14*14	49	Ø70	4-M8
VS-QT-2-20	261	124	-	129	206	76	197	17*17	49	Ø102	4-M10
VS-QT-2-24	261	124	-	129	206	76	197	22*22	49		4-M12
VS-QT-3-35	315	125	-	136	222	76	208	14*14 17*17	51	Ø102	4-M10
VS-QT-3-50	315	125	-	136	222	76	208	22*22	51	Ø125	4-M12
VS-QT-4-80	352	145	-	156	262	91	230	22*22 27*27	62	Ø125	4-M12
VS-QT-4-110	352	145	-	156	262	91	230	36*36	62	Ø140	4-M16
VS-QT-4JS-200	456	145	-	165	262	130	228		75	Ø165	4-M20
VS-QT-4JS-250	456	145	-	165	262	130	228		75		
VS-QT-4JS-300	550	145	185	322	262	137	228	36*36 46*46	120	Ø165	4-M20
VS-QT-4JS-400	550	145	185	322	262	137	228		120		
VS-QT-4JS-600	575	145	225	404	262	179	230		120	Ø254	8-M16

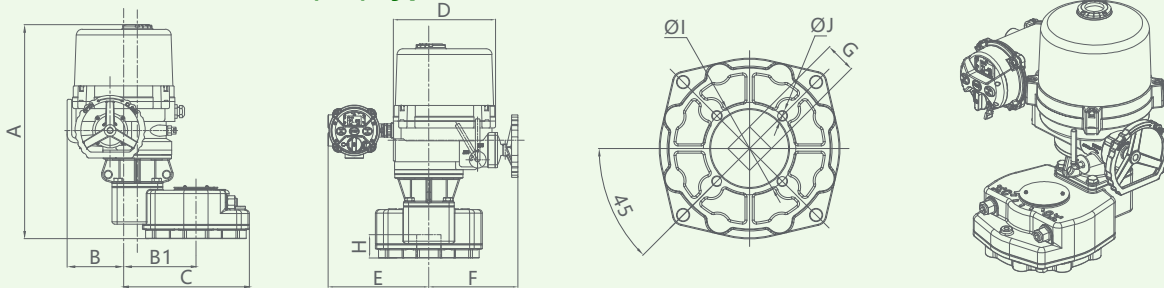
VS-QT-1 TO 4 (SF)Type



VS-QT-4JS-200/250 (SF)Type

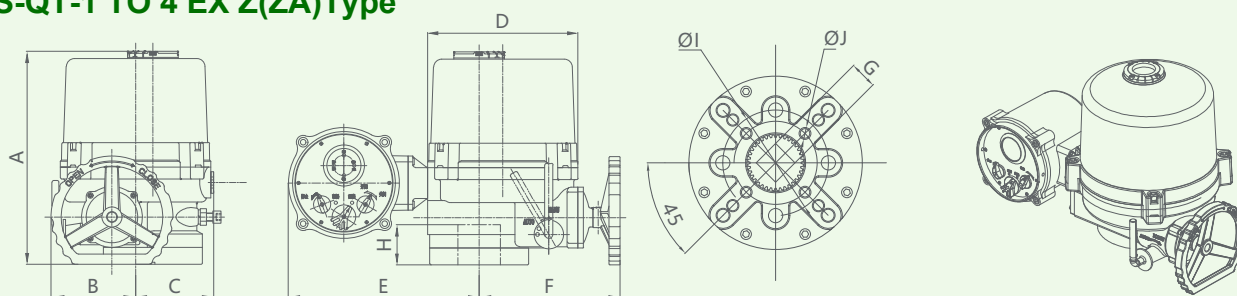


VS-QT-4JS-300/400/600 (SF)Type

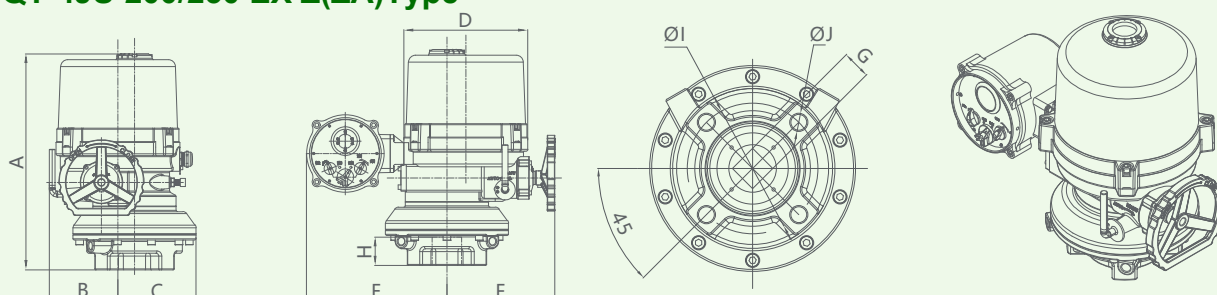


Model	A	B	B1	C	D	E	F	G	H	ØI	J
VS-QT-1-06	229	139	-	96	157	275	170	11*11 14*14	42	Ø50	4-M6
VS-QT-1-10	229	139	-	96	157	275	170	17*17	42	Ø70	4-M8
VS-QT-2-16	261	151	-	85	206	305	196	14*14	49	Ø70	4-M8
VS-QT-2-20	261	151	-	85	206	305	196	17*17	49	Ø102	4-M10
VS-QT-2-24	261	151	-	85	206	305	196	22*22	49		
VS-QT-3-35	315	155	-	92	222	305	206	14*14 17*17	51	Ø102	4-M10
VS-QT-3-50	315	155	-	92	222	305	206	22*22	51	Ø125	4-M12
VS-QT-4-80	352	180	-	107	262	320	228	22*22	62	Ø125	4-M12
VS-QT-4-110	352	180	-	107	262	320	228	27*27 36*36	62	Ø140	4-M16
VS-QT-4JS-200	456	145	-	165	262	291	228		75	Ø165	4-M20
VS-QT-4JS-250	456	145	-	165	262	291	228		75		
VS-QT-4JS-300	550	145	185	322	262	291	228	36*36 46*46	120	Ø165	4-M20
VS-QT-4JS-400	550	145	185	322	262	291	228		120		
VS-QT-4JS-600	575	145	225	404	262	291	230		120	Ø254	8-M16

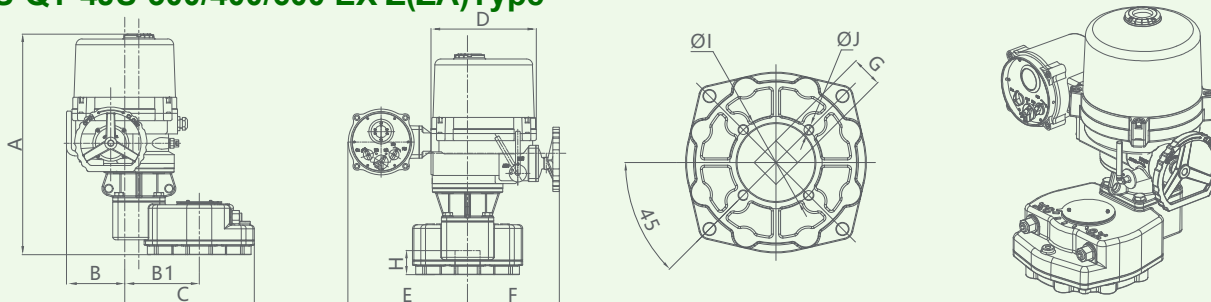
VS-QT-1 TO 4 EX Z(ZA)Type



VS-QT-4JS-200/250 EX Z(ZA)Type



VS-QT-4JS-300/400/600 EX Z(ZA)Type



Model	A	B	B1	C	D	E	F	G	H	ØI	J
VS-QT-1-06	229	91	-	83	157	254	167	11*11 14*14	42	Ø50	4-M6
VS-QT-1-10	229	91	-	83	157	254	167	17*17	42	Ø70	4-M8
VS-QT-2-16	261	124	-	108	206	282	197	14*14	49	Ø70	4-M8
VS-QT-2-20	261	124	-	108	206	282	197	17*17	49	Ø102	4-M10
VS-QT-2-24	261	124	-	108	206	282	197	22*22	49		
VS-QT-3-35	315	125	-	115	222	282	208	14*14 17*17	51	Ø102	4-M10
VS-QT-3-50	315	125	-	115	222	282	208	22*22	51	Ø125	4-M12
VS-QT-4-80	352	145	-	135	262	297	230	22*22	62	Ø125	4-M12
VS-QT-4-110	352	145	-	135	262	297	230	27*27 36*36	62	Ø140	4-M16
VS-QT-4JS-200	456	145	-	165	262	300	228		75	Ø165	4-M20
VS-QT-4JS-250	456	145	-	165	262	300	228		75		
VS-QT-4JS-300	550	145	185	322	262	300	228	36*36 46*46	120	Ø165	4-M20
VS-QT-4JS-400	550	145	185	322	262	300	228		120		
VS-QT-4JS-600	575	145	225	404	262	300	230		120	Ø254	8-M16

VS-QT 1 Ex - 05 A (a B1 - F07 / F10 - IP68)



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