

VE111-4430/33 through VE445-4530/33

Compact, Electric, two position, spring return Zone Control Valves Two Way, Three Way and Four Port

COMPACT GEAR MOTOR CONTROL VALVES - WATER & L.P. STEAM

ME4000 SERIES POWER CUBES

2-position, 2-wire Fail-safe on power failure.

DESCRIPTION - These 2-way and 3-way control valves all use common glass filled, nylon composite, high strength electric gear motor actuators, either NO or NC. They are designed for on-off control of hot or chilled water, glycol (50%) and low pressure steam.

SPECIFICATIONS - Valves 2-way, 3-way or 4-port.

All valve bodies are spring loaded stem up. The spring returns the valve and actuator to stem up when power is lost in fail-open in actuators types ME4430. On loss of power, actuators type ME4530 fail closed.

Valves V111 (straight) and V160 (angle) are union globe with female NPT inlets and male union outlets. Valves V325 and V245 have soldered connections both ends.

Valves V240, V320, V345 and V445 have union connections on all ports. Couplings available sweat, NPT or BSPT.



SPECIFICATIONS - Power Cube Actuators types ME-4430 and ME-4530

Actuators are available for 2-position, 2-wire control. They can be supplied in fail-closed ME4530 or fail-open ME4430 versions. An insulating collar keeps valve body heat away from the actuator, and the IP20 case keeps water intrusion to a minimum.

Ambient temperature rating is from 5°C (40°F) to 50°C (122°F) non condensing. Power supply voltages are 24, 115 or 250 VAC 50/60Hz, consumption 6 watts.

Actuators shall be of brushless hysteresis type. Powered they drive closed (ME4430) or open (ME4530). On loss of power they spring open (ME4430) or closed (ME4530).

How to specify spring return 2-position control valves

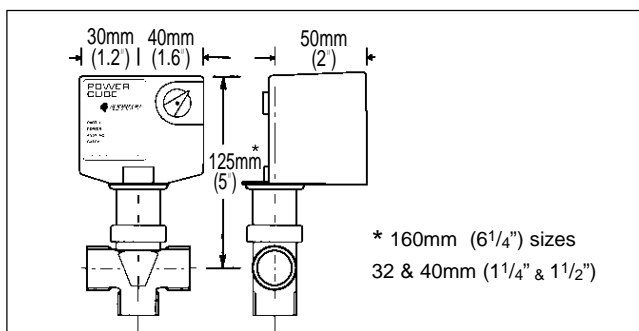
Supply zone two position two wire spring return control valves of globe type construction complete with electric actuators having dial type position indicators and knurled thumbnut quick-disconnect actuators.

The actuators have open/close action with IP20 protection against water ingress, capable of operating in ambient temperatures from 5°C (40°F) to 50°C (122°F). On loss of power, the valve shall spring to the fail-safe position. The base motor shall be of reversible (drive one way, spring return the other) hysteresis action, capable of continuous stall. Drive time in either direction shall be maximum 10 seconds end to end.

A full range of characterized valve bodies shall be available enabling correct selection for the duties required, and easy, in-line service elements, (the packing, stem, plug and return spring - see replacement cartridge, part number on reverse) all as a simple unscrewable element, easily replaceable from the top of the valve. The valves shall be rated for 125, or 200, or 250 psig (Pn 8, 13 or 16) each complete with union coupling, enabling simple valve removal in the event of line blockage, etc.

The entire assembly shall be as manufactured by Spartan Peripheral Devices.

VALVES	V111	V240	V132	V245	V160	V320	V325	V445
Body Type	2-way straight Single Union	2-way straight Two Unions	2-way straight Balanced F-F	2-way solder	2-way angle Single Union	3-way Diverting All Ports Unions	3-way Diverting All Ports Solder	3-way, 4-port
Body Material	Brass	Bronze	Bronze	Bronze	Bronze	Bronze	Bronze	Brass
Stem	Brass-Nickel Pl.	Stainless	Stainless	Stainless	Stainless	Stainless	Stainless	Brass-Nickel Pl.
Class	125#	250#	200#	250#	200#	250#	250#	250#
Max. Temp	110°C/230°F	138°C/280°F	138°C/280°F	138°C/280°F	138°C/280°F	100°C/212°F	100°C/212°F	100°C/212°F
Service	Water Only	Water and 15 PSIG (1bar) Steam				Water Only	Water Only	Water Only
EPDM Disc	All Spartan zone valves 2, 3-way or 4 port are equipped with 1 piece screw-in cartridge for one-step replacement of disc, return spring, stem and packing							
Stainless Spring								
EPDM Packing								
Packing								



All valves have replaceable elements for ease of maintenance. Stem, packing, seat and spring are replaced as a package without removing the valves from the line, be they 2-way, 3-way, or 4-port models.

VE111-4430 through VE445-4530

Compact Electric two position, Zone Control Valves

Two Way, Three Way and Four Port, Normally open or Normally closed spring return versions

NORMALLY OPEN SPRING RETURN CONTROL VALVES

Valve Assembly Part #	USCv	KVs	Size	Description	Actuator Part #	Valve Part #	Replac'mt element	Max Δ psi/ bar
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2 way 125# Straightway Union Globe:

VE111-4430-F-1.5	1.5	1.3	1/2"	Straight union 125# Globe valve norm open on-off gear actuator	ME4430	V111	AV111-1.5	45/3
VE111-4430-F-2.5	2.5	2.2	3/4"		ME4430	V111	AV111-2.5	30/2

2 way 200# Straightway Union Globe Balanced Body

VE132-4430-F-4.0	4.0	3.4	1/2"	Straight FxF 200# globe valve with norm open on-off elec gear actuator	ME4430	V132	AV132-4.0	60/4
VE132-4430-F-6.1	6.1	5.3	3/4"		ME4430	V132	AV132-6.1	60/4
VE132-4430-F-6.4	6.4	5.4	1"		ME4430	V132	AV132-6.4	60/4
VE132-4430-F-12.7	12.7	10.9	1 1/4"		ME4430	V132	AV132-12.7	60/4

2 way 250# Straightway Union Globe Both Ends

VE240-BC0.25-4430	0.25	0.22	Straight Double Unions 250# globe valve with norm open on-off elec gear actuator. Unions Available 1/2", 3/4", 1" in NPT, BSPT, Solder	ME4430	V240	BC0.25	BC0.25	60/4
VE240-BC0.50-4430	0.50	0.43		ME4430	V240	BC0.50	BC0.50	60/4
VE240-EP1.0-4430	1.00	0.86		ME4430	V240	EP1.0	EP1.0	45/3
VE240-EP1.5-4430	1.50	1.29		ME4430	V240	EP1.5	EP1.5	45/3
VE240-EP2.0-4430	2.00	1.72		ME4430	V240	EP2.0	EP2.0	45/3
VE240-EP2.5-4430	2.50	2.15		ME4430	V240	EP2.5	EP2.5	45/3
VE240-EP3.5-4430	3.50	3.01		ME4430	V240	EP3.5	EP3.5	45/3

2 way 200# Straightway with Solder Ends:

VE245-BC0.25-4430	0.25	0.22	7/8"	Straight Solder Body 7/8" 250# globe valve with norm open on-off elec gear actuator. For 3/8" use insert AV6312	ME4430	V245	BC0.25	60/4
VE245-BC0.50-4430	0.50	0.43	7/8"		ME4430	V245	BC0.50	60/4
VE245-EP1.0-4430	1.00	0.86	7/8"		ME4430	V245	EP1.0	45/3
VE245-EP1.5-4430	1.50	1.29	7/8"		ME4430	V245	EP1.5	45/3
VE245-EP2.0-4430	2.00	1.72	7/8"		ME4430	V245	EP2.0	45/3
VE245-EP2.5-4430	2.50	2.15	7/8"		ME4430	V245	EP2.5	45/3
VE245-EP3.5-4430	3.50	3.01	7/8"		ME4430	V245	EP3.5	45/3

2 way 200# Angle Union Globe:

VE160-4430-F-1.9	1.9	1.6	1/2"	Angle union 200# globe valve with normally open on-off elec. Actuator.	ME4430	V160	AV130-1.9	45/3
VE160-4430-F-3.0	3.0	2.6	3/4"		ME4430	V160	AV130-3.0	30/2
VE160-4430-F-6.3	6.3	5.4	1"		ME4430	V160	AV130-6.3	15/1
VE162-4430-F-12.7	12.7	10.9	1 1/4"		ME4430	V162	AV132-12.7	60/4

3 way 250# diverting with Unions all three ports:

VE320-EPD1.0-4430	1.0	0.86	3 way union diverting valve with normally open actuator. Unions available 1/2", 3/4", 1" in NPT, BSPT, Solder.	ME4430	V320	EPD1.0	EPD1.0	45/3
VE320-EPD2.0-4430	2.0	1.72		ME4430	V320	EPD2.0	EPD2.0	45/3
VE320-EPD3.5-4430	3.5	3.01		ME4430	V320	EPD3.5	EPD3.5	45/3
VE345-4430-F-5.5	5.5	4.70		ME4430	V345	AV345-5.5	AV345-5.5	15/1

3 way 250# diverting with Solder Body:

VE325-EPD1.0-4430	1.0	0.86	7/8"	3 way solder diverting valve with norm. open on-off elec. act. For 3/8" use insert AV6312.	ME4430	V325	EPD1.0	45/3
VE325-EPD2.0-4430	2.0	1.72	7/8"		ME4430	V325	EPD2.0	45/3
VE325-EPD3.5-4430	3.5	3.01	7/8"		ME4430	V325	EPD3.5	45/3

4 way 250# diverting/ mixing with Unions all four ports:

VE445-4430-F-2.3	2.3	2.0	1/2"	4 way union diverting valve with norm. open on-off elec act.	ME-4430	V445	AV345-2.3	45/3
VE445-4430-F-3.7	3.7	3.2	3/4"		ME-4430	V445	AV345-3.7	30/2

NORMALLY CLOSED SPRING RETURN CONTROL VALVES

Valve Assembly Part #	USCv	KVs	Size	Description	Actuator Part #	Valve Part #	Replac'mt element	Max Δ psi/ bar
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2 way 125# Straightway Union Globe:

VE111-4530-F-1.5	1.5	1.3	1/2"	Straight union 125# Globe valve norm closed on-off gear actuator	ME4530	V111	AV111-1.5	45/3
VE111-4530-F-2.5	2.5	2.2	3/4"		ME4530	V111	AV111-2.5	30/2

2 way 200# Straightway Union Globe Balanced Body

VE132-4530-F-4.0	4.0	3.4	1/2"	Straight FxF 200# globe valve with norm closed on-off elec gear actuator.	ME4530	V132	AV132-4.0	60/4
VE132-4530-F-6.1	6.1	5.3	3/4"		ME4530	V132	AV132-6.1	60/4
VE132-4530-F-6.4	6.4	5.5	1"		ME4530	V132	AV132-6.4	60/4
VE132-4530-F-12.7	12.7	10.9	1 1/4"		ME4530	V132	AV132-12.7	60/4

2 way 250# Straightway Union Globe Both Ends

VE240-BC0.25-4530	0.25	0.22	Straight Double Unions 250# globe valve with normally closed on-off elec gear actuator. Unions Available 1/2", 3/4", 1" in NPT, BSPT, Solder.	ME4530	V240	BC0.25	BC0.25	60/4
VE240-BC0.50-4530	0.50	0.43		ME4530	V240	BC0.50	BC0.50	60/4
VE240-EP1.0-4530	1.00	0.86		ME4530	V240	EP1.0	EP1.0	40/2.7
VE240-EP1.5-4530	1.50	1.29		ME4530	V240	EP1.5	EP1.5	40/2.7
VE240-EP2.0-4530	2.00	1.72		ME4530	V240	EP2.0	EP2.0	40/2.7
VE240-EP2.5-4530	2.50	2.15		ME4530	V240	EP2.5	EP2.5	40/2.7
VE240-EP3.5-4530	3.50	3.01		ME4530	V240	EP3.5	EP3.5	40/2.7

2 way 200# Straightway with Solder Ends:

VE245-BC0.25-4530	0.25	0.22	7/8"	Straight Solder Body 7/8" 250# globe valve with normally closed on-off elec gear actuator. For 3/8" use insert AV6312	ME4530	V245	BC0.25	60/4
VE245-BC0.50-4530	0.50	0.43	7/8"		ME4530	V245	BC0.50	60/4
VE245-EP1.0-4530	1.00	0.86	7/8"		ME4530	V245	EP1.0	40/2.7
VE245-EP1.5-4530	1.50	1.29	7/8"		ME4530	V245	EP1.5	40/2.7
VE245-EP2.0-4530	2.00	1.72	7/8"		ME4530	V245	EP2.0	40/2.7
VE245-EP2.5-4530	2.50	2.15	7/8"		ME4530	V245	EP2.5	40/2.7
VE245-EP3.5-4530	3.50	3.01	7/8"		ME4530	V245	EP3.5	40/2.7

2 way 200# Angle Union Globe:

VE160-4530-F-1.9	1.9	1.6	1/2"	Angle union 200# globe valve with normally closed on-off elec. gear actuator.	ME4530	V160	AV130-1.9	40/2.7
VE160-4530-F-3.0	3.0	2.6	3/4"		ME4530	V160	AV130-3.0	30/2
VE160-4530-F-6.3	6.3	5.4	1"		ME4530	V160	AV130-6.3	15/1
VE162-4530-F-12.7	12.7	10.9	1 1/4"		ME4530	V162	AV132-12.7	60/4

3 way 250# diverting with Unions all three ports:

VE320-EPD1.0-4530	1.0	0.86	3 way union diverting valve with normally closed actuator. Unions Available 1/2", 3/4", 1" in NPT, BSPT, Solder	ME4530	V320	EPD1.0	EPD1.0	40/2.7
VE320-EPD2.0-4530	2.0	1.72		ME4530	V320	EPD2.0	EPD2.0	40/2.7
VE320-EPD3.5-4530	3.5	3.01		ME4530	V320	EPD3.5	EPD3.5	40/2.7
VE345-4530-F-5.5	5.5	4.70		ME4530	V345	AV345-5.5	AV345-5.5	15/1

3 way 250# diverting with Solder Body:

VE325-EPD1.0-4530	1.0	0.86	7/8"	3 way solder diverting valve with norm. closed on-off act. For 3/8" use insert AV6312.	ME4530	V325	EPD1.0	40/2.7
VE325-EPD2.0-4530	2.0	1.72	7/8"		ME4530	V325	EPD2.0	40/2.7
VE325-EPD3.5-4530	3.5	3.01	7/8"		ME4530	V325	EPD3.5	40/2.7

4 way 250# diverting/ mixing with Unions all four ports:

VE445-4530-F-2.3	2.3	2.0	1/2"	4 way union diverting valve with norm. closed on-off elec act.	ME4530	V445	AV445-2.3	45/3
VE445-4530-F-3.7	3.7	3.2	3/4"		ME4530	V445	AV445-3.7	30/2