



Actuators

Issue 01



It's all at Albion

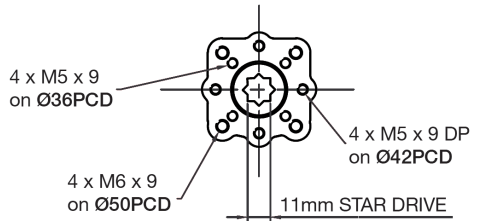
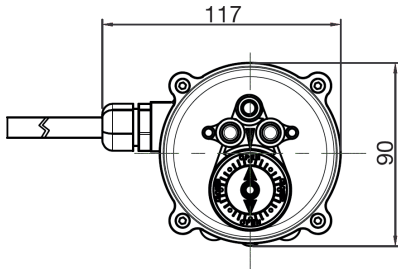
HQ3

HQ Electric Actuator for Albion ball and butterfly valves



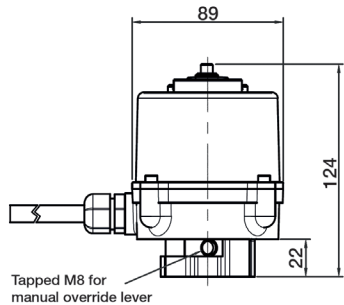
Features

- Small, light and compact design
- Manual override lever
- 4 off limit switches
- Anti condensation heater
- Visual indication including LED lamps to show either open or closed
- 3m flying lead - no need for the cover to be removed during installation
- One unit covers 24VDC, 110VAC & 230VAC



Standard Specification

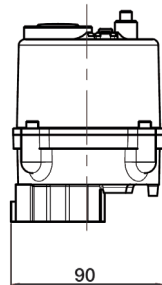
Enclosure	: Aluminium weatherproof IP67
Power supply	: 85-265v 50/60Hz. 24v DC
Duty cycle (on/off duty)	: S4, 50%
Motor	: Reversible motor
Limit switches	: 2 x SPDT, 250V AC 3A
Additional limit switches	: 2 x SPDT, 250V AC 3A
Space heater	: 0.5W
Manual override	: Push button / lever operated
Movement angle	: 90° ± 5° (0° to 90°)
Ambient temperature	: -20°C to 70°C
External coating	: Dry powder, polyester



Performance

Model	Maximum Output Torque	Operating time 50/60Hz - 90°	Mounting base ISO 5211
HQ3	30NM	12 Secs	F03/F04/F05 11mm Star

Model	Rated Current (A)		Weight	
	AC 1PH. 50/60Hz	DC		
	110V	220V	24V	
HQ3	0.1/0.1	0.1/0.1	0.5	1.2kg



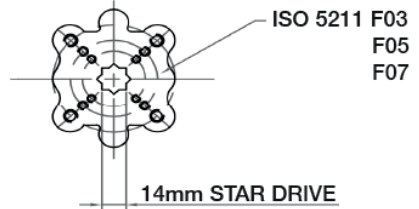
HQ4 & HQ6

HQ Electric Actuator for Albion ball and butterfly valves



Features

- Small, light and compact design
- High output torque
- Alloy gearing
- Multi voltage options



Standard Specification

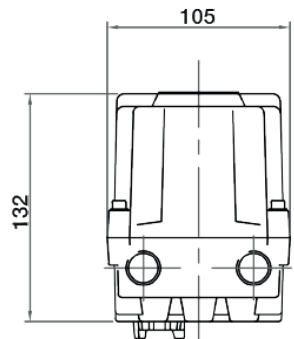
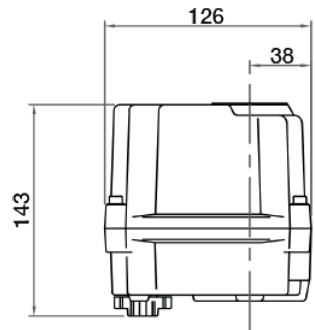
Enclosure	: Weatherproof IP67
Power supply	: 110/230v 50/60Hz, 24vAC/DC
Duty cycle (on/off duty)	: S2, 35%
Motor	: Reversible motor
Limit switches	: 2 x SPDT, 250V AC 3A
Additional limit switches	: 2 x SPDT, 250V AC 3A
Anti-condensation heater	: 2W (110/220V AC)
Manual override	: Hexagon
Conduit entries	: 2 x M20
Movement angle	: 320° ± 10° (0° to 320°)
Ambient temperature	: -20°C to 70°C
External coating	: Dry powder, polyester

Optional Specification

Enclosure	: Waterproof IP68
Conduit entries	: 2 x PG 13.5, 1/2" NPT
PIU	: Potentiometer Unit (1K - 10K)
PCU	: Proportional Control Unit (In/Out:0-10V, 4-20mA)
CPT	: Current Position Transmitter (Output 4-20mA DC)
LCU	: Local Control Unit (Remote/Open/Stop/Close s/w)

Performance

Model	Maximum Output Torque	Operating time 50/60Hz - 90°	Mounting base ISO 5211
HQ4	40NM	14/12 Sec	F03/F05/F07 14mm Star
HQ6	60NM	14/12 Sec	F03/F05/F07 14mm Star



Model	Rated Current (A)				Weight
	110VAC	220VAC	24VAC	24VDC	
HQ4	0.4	0.2	1.7	1.7	3kg
HQ6	0.4	0.2	1.7	1.7	3kg

V1. Dimensions in mm

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HQ5

HQ Electric Actuator for Albion ball and butterfly valves



Features

- Multi voltage options
- High corrosion resistance, anodized & painted housing
- Low current, long-life actuator due to unique brushless DC motor
- Visual beacon indicator & LED lamps
- 70% duty rating (on/off only)
- Dec clutchable manual override handwheel
- Electric torque limiter

Standard Specification

Enclosure	: Weatherproof IP67
Power supply	: 85 - 265 VAC 1ph, 50/60 Hz 24 VAC /DC
Duty cycle	: S4: 70% (average load of 80% Max. torque) S2: 50% (average load of 80% Max. torque)
Motor	: BLDC motor
Limit switches	: 2 x open/close, SPDT, 250 V ac 10 A rating
Additional limit switches	: 2 x open/close, SPDT, 250 V ac 10 A rating
Anti-condensation board	: 2W
Manual override	: Manual handwheel
Cable entries	: 2 x M20
Movement angle	: 320° ± 10° (0° to 330°)
Ambient temperature	: -20°C to +80°C

Optional Specification

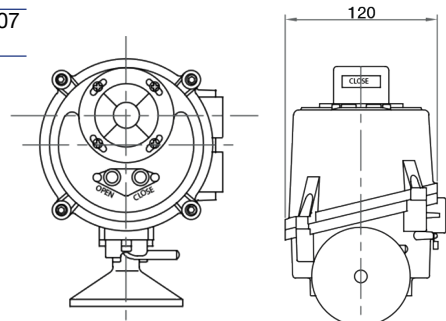
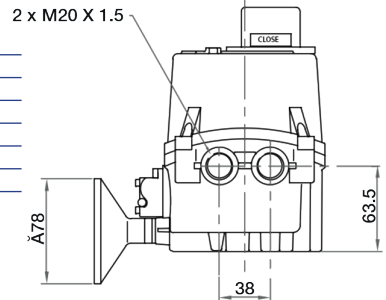
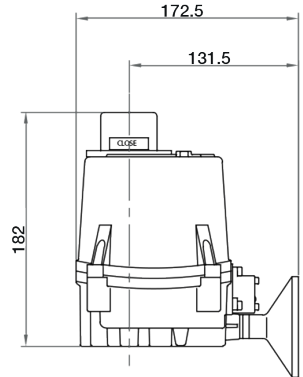
PIU	: Potentiometer unit (1-10 kΩ)
PCU	: Proportional control unit (in/out: 0-10V or 4-20 mA)
*CPT	: Current position transmitter (output: 4-20mA dc)
WTA	: Watertight enclosure actuator (IP68 10 m 72 hr)
TS	: Torque overload indicator via flashing LED module

*NOTE: These options are currently under development

Performance

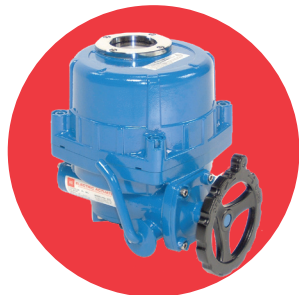
Model	Maximum Output Torque	Operating time 50/60Hz - 90°	Mounting base ISO 5211
HQ5	50NM	13 Sec	F03/F04/F05/F07 14mm Star

Model	Rated Current (A)				Weight
	110VAC	220VAC	24VAC	24VDC	
HQ5	0.1	0.05	0.8	0.8	2.6kg



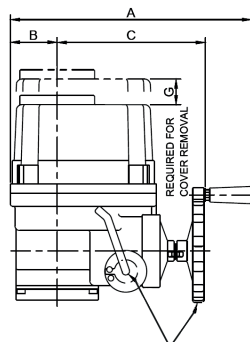
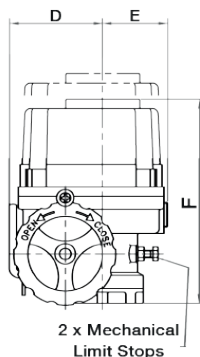
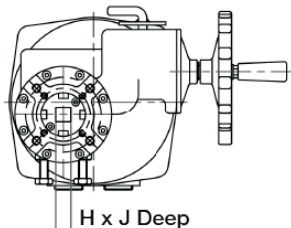
HQ8 - HQ120

HQ Electric Actuator for Albion ball and butterfly valves



Features

- Wide range of output torques
- Control options include 4-20ma positioner and failsafe
- Alloy gearing
- Die cast aluminium housing
- Multi voltage options



Standard Specification

Enclosure	: Weatherproof IP67 (IP68 option)
Power supply	: 110/230v 50/60Hz, 24vAC/DC, 380/440V 3 phase
Duty cycle (on/off duty)	: S4, 70% standard, 100% for max 30 mins
Motor	: Squirrel caged induction motor
Limit switches	: 4 x SPDT, 250V AC 10A
Torque switches	: 2 x SPDT, 250vAC 10A (HQ015-HQ120)
Space heater	: 10W (110/220VAC) Anti condensation
Conduit entries	: 2 x M25 (PG 13.5 or 1/2" NPT option)
Travel angle	: 90° ± 5°
Ambient temperature	: -20°C to +70°C on/off, -20°C to +55° Modulating
External coating	: Anodised before dry powder polyester coating

Performance

MODEL	HQ8	HQ15	HQ20	HQ30	HQ50	HQ60	HQ80	HQ120
Torque (Nm)	80	150	200	300	500	600	800	1200
Speed 90 50/60hZ	16/13	25/21	25/21	31/26	31/26	31/26	34/28	34/28
Current 110/1/50	1.1	1.65	1.67	1.86	3.62	3.62	4.1	4.2
(A) 220/1/50	0.55	0.88	0.89	0.92	1.58	1.62	2.2	2.35
24VAC/DC	3.7	5.3	6.5	8.6				
Weight (Kgs)	7.4	16.6	16.6	22	23	23	29	29
Standard Sq size	14	17	17	22	22	27	27	36

MODEL	BASE	A	B	C	D	E	F	G	H*	J
HQ8	F07	258	50	157	100	70	235	120	14	35
HQ15	F07/F10	338	73	200	142	87	268	160	17	45
HQ20	F07/F10	338	73	200	142	87	268	160	17	45
HQ30	F10/F12	368	82	221	160	99	290	180	22	52
HQ50	F10/F12	368	82	221	160	99	290	180	22	52
HQ60	F10/F12	368	82	221	160	99	290	180	27	52
HQ80	F12/F14	410	103	242	186	111	330	210	27	60
HQ120	F12/F14	410	103	242	186	111	330	210	36	60

* Can be machined to suit most valve stems (on request)

V1. Dimensions in mm

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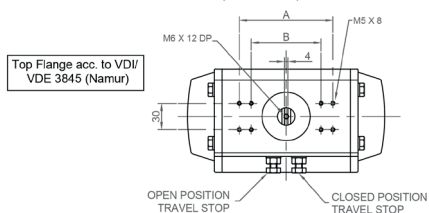
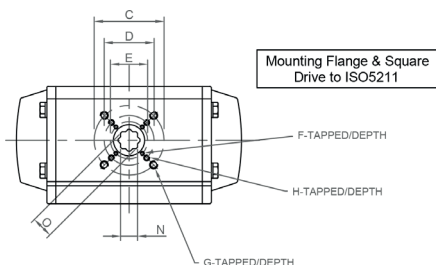
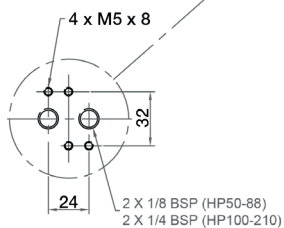
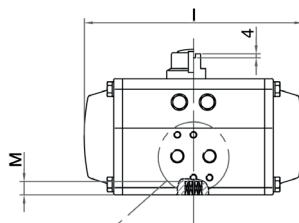
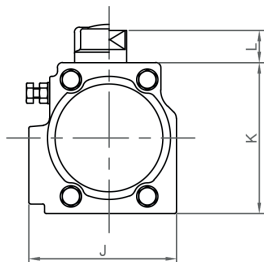
HP Pneumatic Actuator

HP Pneumatic Actuator for Albion ball and butterfly valves



Features

- Double acting and spring return models
- Hard anodised aluminium housing
- Wide range of torque & control options available



HPS / HPD	50	63	66	75	88	100	115
A	-	-	-	-	-	-	-
B	80	80	80	80	80	80	80
C	50	70	70	70	102	102	102
D	36	50	50	50	70	70	70
E	-	-	-	-	50	50	-
F	-	-	-	-	M6/9	M6/9	-
G	M6/9	M8/12	M8/12	M8/12	M10/15	M10/15	M10/15
H	M5/8	M6/9	M6/9	M6/9	M8/12	M8/12	M8/12
I	144	163	202	210	247	268	316
J	72	85	85	96	108	123	141
K	73	87	87	104	116	128	146
L	20	20	20	20	20	20	20
M	14	18	18	22	22	22	32
N	11	14	14	17	17	17	22
O	14.2	18.2	18.2	22.2	22.2	22.2	28.2

HPS / HPD	125	145	160	180	200	210
A	-	130	130	130	130	130
B	80	80	80	80	80	80
C	125	125	125	125	140	140
D	102	102	102	102	-	-
E	70	-	-	-	-	-
F	M8/12	-	-	-	-	-
G	M12/18	M12/18	M12/18	M12/18	M16/24	M16/24
H	M10/15	M10/15	M10/15	M10/15	-	-
I	347	414	467	497	555	628
J	151	172	190	206	227	236
K	159	179	196	221	247	256
L	20	30	30	30	30	30
M	32	36	36	39	39	43
N	22	27	27	36	36	36
O	28.2	36.2	36.2	48.2	48.2	48.2

For torque information please contact the sales office.

V1. Dimensions in mm

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Namur Solenoid Universal Direct Mount Namur Solenoid



Features

- Life cycle 12,000,000 operations
5/2 - 3/2 interchangeable
- Available in 110VAC, 230VAC, 24VAC, 24VDC
- IP65
- Manual override control

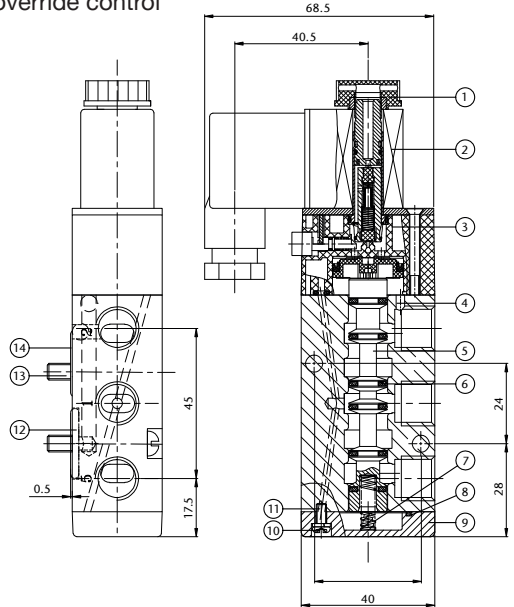
Technical data

Working pressure: 1.5 to 8 Bar

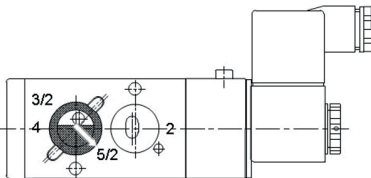
Max working temp: -20°C to +60°C

N. Part Name Materials

1	Nut	PA66 (Nylon) +30% GF (Plastic)
2	Coil (Din Plug)	Enamelled Wire & Engineering Plastic
3	Pilot Unit	Pure Steel & Cu & Stainless Steel
4	Valve Body	6061-T6 (Aluminium Alloy)
5	Spool	6061-T6 (Aluminium Alloy)
6	Flat Ring	HNBR 80°
7	Spring	SUS304-WPB
8	Diamond Ring	NBR
9	Rear Cover	Zinc Alloy
10	Screw	Q235 (Steel)
11	Spring Washer	Q235 (Steel)
12	Switch Gasket	NBR & Q235
13	Screw	Q235 (Steel)
14	O Ring	NBR

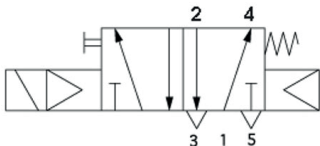


5/2 way (Double Acting Actuators)

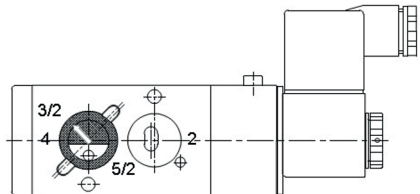


Model: V523231E4-08MG 5/2

5/2 way with silencers function diagram

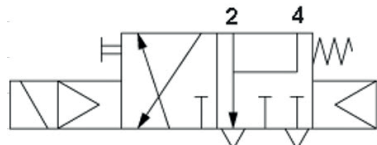


3/2 way (Spring Return Actuators)



Model: V523231E4-08MG 3/2

3/2 way with silencers function diagram



V1. Dimensions in mm

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ART SB

Switchbox



Features

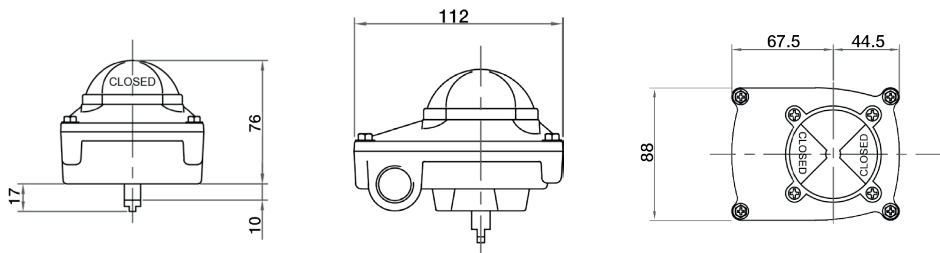
- Powder coated aluminium switchbox to IP67
- Solid and compact design with high visibility beacon indicator
- Captive cover bolts are safely retained during installation and maintenance
- Easily adjustable with no tools required
- Dual cable entries are provided
- Mounted to the actuator using a NAMUR standard stainless steel mounting bracket
- Switchboxes available to suit hazardous areas

Standard Specification

Enclosure Material	: Die cast aluminium
Enclosure rating	: IP67
Enclosure finish	: Polyester powder coating (black)
Shaft material	: Stainless Steel
Cable entries	: 2 x M20 (options PG13.5 & 1/2" NPT)
Limit switch type	: 2 x SPDT, mechanical
Voltage / Amps	: 250V AC/16A, 125V AC/16A 250VDC/0.3A, 125VDC/0.6A, 30VDC/10A
Ambient temperature	: -20°C to +80°C

Optional Specification

Enclosure rating	: IP68
Proximity sensors	: Available upon request
Beacon indicator	: 3 way indication





Pneumatic DA Actuator to Albion Valve Combinations

	ART 160	ART 87/88	ART 993H	ART 926	ART 928	ART 987/988	ART 110/115/120/135/145	ART 125/140	ART 995T/995NPT	ART 956/958	ART 279	ART 280
1/4"	HP50D 9-11 spacer	HP50D 9-11 spacer	HP50D 9-11 spacer			HP50D 9-11 spacer						
3/8"	HP50D 9-11 spacer	HP50D 9-11 spacer	HP50D 9-11 spacer			HP50D 9-11 spacer						
1/2"	HP50D 9-11 spacer	HP50D 9-11 spacer	HP50D 9-11 spacer	HP50D 9-11 spacer	HP50D 9-11 spacer	HP50D 9-11 spacer			HP50D 9-11 spacer	HP50D 9-11 spacer	HP63D SMK	
3/4"	HP50D 9-11 spacer	HP50D D/M	HP50D D/M	HP50D 9-11 spacer	HP50D 9-11 spacer	HP50D D/M			HP50D 9-11 spacer	HP50D 9-11 spacer	HP63D SMK	
1"	HP50D 9-11 spacer	HP50D D/M	HP50D D/M	HP50D D/M	HP50D D/M	HP63D 11-14 spacer			HP50D D/M	HP50D D/M	HP63D SMK	HP63D 11-14 spacer
1 1/4"	HP50D 9-11 spacer	HP50D D/M	HP63D D/M	HP63D 11-14 spacer	HP63D 11-14 spacer	HP63D D/M			HP63D 11-14 spacer	HP63D 11-14 spacer	HP63D SMK	HP63D D/M
1 1/2"	HP50D D/M	HP63D D/M	HP63D D/M	HP63D D/M	HP63D D/M	HP66D D/M			HP63D D/M	HP63D D/M	HP63D D/M	HP63D D/M
2"	HP50D D/M	HP66D D/M	HP66D D/M	HP66D D/M	HP66D D/M	HP75D 14-17 spacer	HP63D 11-14 spacer	HP50D 9-11 spacer	HP66D D/M	HP66D D/M	HP63D D/M	HP66D D/M
2 1/2"	HP63D D/M		HP75D D/M	HP88D D/M	HP75D D/M	HP88D D/M	HP63D 11-14 spacer	HP50D 9-11 spacer	HP88D D/M	HP88D D/M	HP75D 17-14 spacer	HP88D 14-17 spacer
3"	HP63D D/M		HP88D D/M	HP88D D/M	HP88D D/M	HP100D D/M	HP63D 11-14 spacer	HP63D 9-14 spacer	HP88D D/M	HP88D D/M	HP88D D/M	HP88D D/M
4"			HP100D D/M	HP100D D/M	HP100D D/M	HP115D 17-22 spacer	HP66D 11-14 spacer	HP66D 11-14 spacer	HP100D D/M	HP100D D/M	HP100D D/M	HP115D D/M
5"				HP125D D/M			HP75D 14-17 spacer	HP75D 14-17 spacer			HP115D D/M	HP115D D/M
6"				HP145D 22-27 spacer			HP88D 14-17 spacer	HP100D 14-17 spacer			HP145D 27-22 spacer	HP145D D/M
8"				HP160D D/M			HP115D 17-22 spacer	HP115D 17-22 spacer			HP180D 36-27 spacer	HP180D SMK
10"							HP125D D/M	HP145D 22-27 spacer				
12"							HP145D 22-27 spacer	HP160D 22-27 spacer				

V1. Dimensions in mm

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Pneumatic SR Actuator to Albion Valve Combinations

	ART 160	ART 87/88	ART 993H	ART 926	ART 928	ART 987/988	ART 110/115/120/135/145	ART 125/140	ART 995T/995NPT	ART 956/958	ART 279	ART 280
1/4"	HP50S 9-11 spacer	HP50S 9-11 spacer	HP50S 9-11 spacer			HP50S 9-11 spacer						
3/8"	HP50S 9-11 spacer	HP50S 9-11 spacer	HP50S 9-11 spacer			HP50S 9-11 spacer						
1/2"	HP50S 9-11 spacer	HP50S 9-11 spacer	HP50S 9-11 spacer	HP50S 9-11 spacer	HP50S 9-11 spacer	HP50S 9-11 spacer			HP50S 9-11 spacer	HP50S 9-11 spacer	HP66S SMK	
3/4"	HP50S 9-11 spacer	HP63S 11-14 spacer	HP50S D/M	HP50S 9-11 spacer	HP50S 9-11 spacer	HP63S 11-14 spacer			HP50S 9-11 spacer	HP50S 9-11 spacer	HP66S SMK	
1"	HP50S 9-11 spacer	HP63S 11-14 spacer	HP63S D/M	HP63S 11-14 spacer	HP63S 11-14 spacer	HP66S 11-14 spacer			HP63S 11-14 spacer	HP63S 11-14 spacer	HP75S SMK	HP66S 11-14 spacer
1 1/4"	HP50S 9-11 spacer	HP63S 11-14 spacer	HP63S D/M	HP63S 11-14 spacer	HP66S 11-14 spacer	HP75S D/M			HP66S 11-14 spacer	HP66S 11-14 spacer	HP75S SMK	HP75S 14-17 spacer
1 1/2"	HP63S 11-14 spacer	HP66S D/M	HP66S D/M	HP66S D/M	HP66S D/M	HP88S 14-17 spacer			HP66S D/M	HP66S D/M	HP75S 17-14 spacer	HP75S 14-17 spacer
2"	HP63S 11-14 spacer	HP75S 14-17 spacer	HP75S 14-17 spacer	HP88S 14-17 spacer	HP88S 14-17 spacer	HP100S 14-17 spacer	HP75S 11-17 spacer	HP66S 9-14 spacer	HP75S 14-17 spacer	HP75S 14-17 spacer	HP75S 17-14 spacer	HP75S 14-17 spacer
2 1/2"	HP66S D/M		HP100S D/M	HP100S 17-22 spacer	HP100S 17-22 spacer	HP115S 17-22 spacer	HP75S 11-17 spacer	HP66S 9-14 spacer	HP100S 17-22 spacer	HP100S 17-22 spacer	HP88S 17-14 spacer	HP100S 14-17 spacer
3"	HP66S D/M		HP115S 17-22 spacer	HP115S 17-22 spacer	HP115S 17-22 spacer	HP125S 17-22 spacer	HP88S 11-17 spacer	HP75S 9-17 spacer	HP115S 17-22 spacer	HP115S 17-22 spacer	HP115S 22-17 spacer	HP115S 17-22 spacer
4"			HP125S 17-22 spacer	HP125S 17-22 spacer	HP125S 17-22 spacer	HP145S 17-27 spacer	HP88S 11-17 spacer	HP88S 11-17 spacer	HP125S 17-22 spacer	HP125S 17-22 spacer	HP125S 22-17 spacer	HP125S D/M
5"				HP145S 22-27 spacer			HP100S 14-17 spacer	HP115S 14-22 spacer			HP145S 27-22 spacer	HP145S 22-27 spacer
6"				HP180S 22-36 spacer			HP115S 14-22 spacer	HP125S 14-22 spacer			HP160S 27-22 spacer	HP180S 27-36 spacer
8"				HP200S 27-36 spacer			HP145S 17-27 spacer	HP145S 17-27 spacer			HP211S SMK	HP211S SMK
10"							HP180S 22-36 spacer	HP180S 22-36 spacer				
12"							HP200S SMK	HP200S SMK				

V1. Dimensions in mm

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Electric Actuator to Albion Valve Combinations

	ART 160	ART 87/88	ART 993H	ART 926	ART 928	ART 987/988	ART 110/115/120/135/145	ART 125/140	ART 995T/995NPT	ART 956/958	ART 279	ART 280
1/4"	HQ3 9-11 spacer	HQ3 9-11 spacer	HQ5 9-14 spacer			HQ5 9-14 spacer						
3/8"	HQ3 9-11 spacer	HQ3 9-11 spacer	HQ5 9-14 spacer			HQ5 9-14 spacer						
1/2"	HQ3 9-11 spacer	HQ3 9-11 spacer	HQ5 9-14 spacer	HQ5 9-14 spacer	HQ5 9-14 spacer	HQ5 9-14 spacer			HQ5 9-14 spacer	HQ5 9-14 spacer	HQ5 14-9 spacer	
3/4"	HQ3 9-11 spacer	HQ3 D/M	HQ5 11-14 spacer	HQ5 9-14 spacer	HQ5 9-14 spacer	HQ5 11-14 spacer			HQ5 9-14 spacer	HQ5 9-14 spacer	HQ5 14-9 spacer	
1"	HQ3 9-11 spacer	HQ3 D/M	HQ5 11-14 spacer	HQ5 11-14 spacer	HQ5 11-14 spacer	HQ5 11-14 spacer			HQ5 11-14 spacer	HQ5 11-14 spacer	HQ5 14-11 spacer	HQ3 9-11 spacer
1 1/4"	HQ3 9-11 spacer	HQ3 D/M	HQ5 D/M	HQ5 11-14 spacer	HQ5 11-14 spacer	HQ5 D/M			HQ5 11-14 spacer	HQ5 11-14 spacer	HQ5 14-11 spacer	HQ5 D/M
1 1/2"	HQ3 D/M	HQ5 D/M	HQ5 D/M	HQ5 D/M	HQ5 D/M	HQ5 D/M			HQ5 D/M	HQ5 D/M	HQ5 D/M	HQ5 D/M
2"	HQ3 D/M	HQ5 D/M	HQ5 D/M	HQ5 D/M	HQ5 D/M	HQ6 D/M	HQ5 11-14 spacer	HQ5 9-14 spacer	HQ5 D/M	HQ5 D/M	HQ5 D/M	HQ5 D/M
2 1/2"	HQ5 D/M		HQ8 D/B	HQ8 D/B	HQ8 D/B	HQ8 D/B	HQ5 11-14 spacer	HQ5 9-14 spacer	HQ8 D/B	HQ8 D/B	HQ6 D/M	HQ8 D/M
3"	HQ5 D/M		HQ15 D/M	HQ15 D/M	HQ15 D/M	HQ15 D/M	HQ5 11-14 spacer	HQ5 9-14 spacer	HQ15 D/M	HQ15 D/M	HQ15 D/M	HQ15 D/M
4"			HQ15 D/M	HQ15 D/M	HQ15 D/M	HQ20 D/M	HQ5 11-14 spacer	HQ5 11-14 spacer	HQ15 D/M	HQ15 D/M	HQ15 D/M	HQ30 D/M
5"				HQ30 D/M			HQ6 D/M	HQ8 D/M			HQ30 D/M	HQ30 D/M
6"				HQ50 D/M			HQ15 14-17 spacer	HQ15 14-17 spacer			HQ50 D/M	HQ50 D/B
8"				HQ60 D/M			HQ20 D/M	HQ20 D/M			HQ80 D/M	HQ80 D/M
10"							HQ30 D/M	HQ50 D/M				
12"							HQ50 D/M	HQ50 D/M				

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