



35 Green Street
Malden, MA 02148
781-321-5409

INSTRUCTIONS

Series 83A Electric Actuator “ELECTROMNI”

Description

- Valves** Corrosion Resistant Thermoplastic uni-body construction ball valve in PVC or CPVC with Teflon seats and EPDM or Viton Backing Cushions and EPDM or Viton stem seal. Also available for our Tru-Union Type 21 ball valves and Tru-Union Type-23 Multi-Port 3-way ball valves.
- Motor** The Series 83 “Electromni” motor is a brushless, uni-directional (non-reversing) shaded pole electric motor, which opens and closes the omni or Type-21 ball valve in approximately 5 seconds through 90-degrees of travel. Type-23 Multiport 3-way ball valves run 10 seconds for 180-degrees of travel.
- Operation** Travel is controlled by an internal single pole double throw limit switch activated by a cam/coupling with 90-degree positive and negative lobes. (180-degree for 3-ways)
- Adjustment** The Actuator limit switch has a small amount of adjustment for fine tuning the open and close positions. Any changes will affect both open and closed positions simultaneously. The adjustment can be achieved by loosening the hex standoffs that secure the switch plate to the motor housing and moving the plate slightly ahead to trip the switch later or slightly back to trip the switch sooner. To see if change is valid look inside the valve itself and watch the ball travel.

Engineering Data

Valve Size	Voltage	Current Draw	Cycle Time	Duty Cycle
1/2”-2”	115 VAC	2.1 AMPS	5 sec.	25%
1/2”-2”	220 VAC	.60 AMPS	5 sec.	25%

Standard enclosure is weather/corrosion resistant (NEMA 4X).

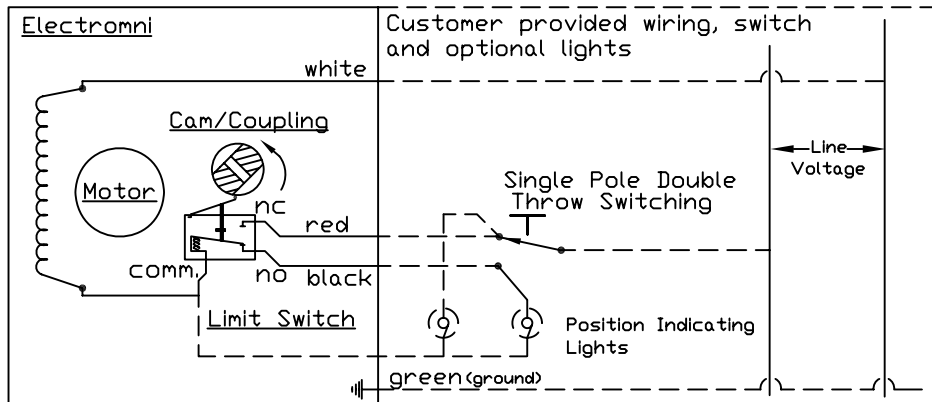
Options: 1 additional limit switch (Dry set of contacts)
2-position indicating lights (For visual position indication)
2-wire control (For Retrofitting Solenoids must provide constant voltage)

Attachments: 4-Drawings #0002EL, #0119BV83, #0046BV83, #132BV83

REV	DESCRIPTION	DFTG	CHK	DATE
B	INITIAL RELEASE	JJG	KB/DH	9/9/04
C	CHANGES PER ECR# 014-07	JJG	KB	6/19/07

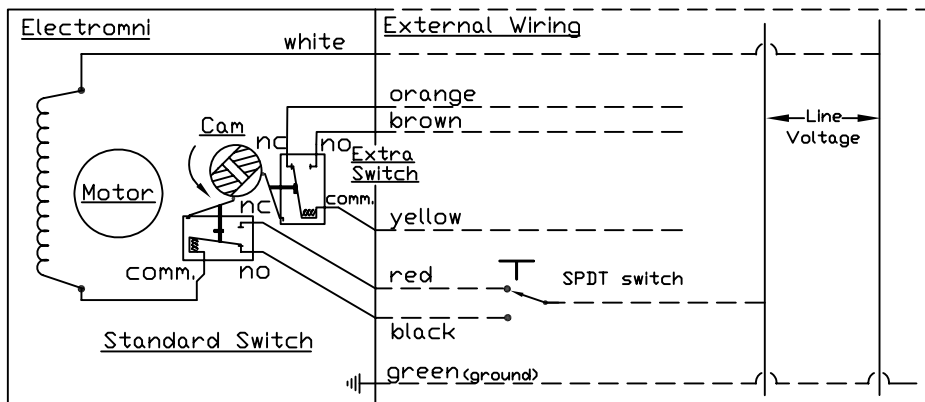
FOR OTHER REVISIONS SEE ECO HISTORY FILE.

WIRING DIAGRAM:



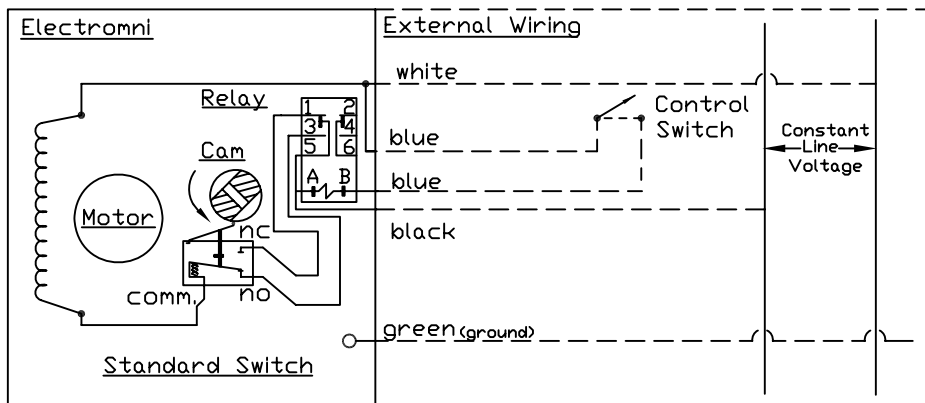
WHITE = NEUTRAL
 BLACK = HOT COMMAND OPEN
 RED = HOT COMMAND CLOSE
 GREEN = GROUND

ELECTROMNI WITH EXTRA LIMIT SWITCH



WHITE = NEUTRAL
 BLACK = HOT COMMAND OPEN
 RED = HOT COMMAND CLOSE
 GREEN = GROUND

ELECTROMNI WITH TWO WIRE CONTROL



CONTROL SWITCH OPERATION
CLOSURE = OPEN COMMAND
NON-CLOSURE = CLOSED COMMAND

THIS DRAWING AND ALL INFORMATION HEREON IS THE PROPERTY OF ASAHI/AMERICA. ANY COPYING, REPRODUCTION OR UNAUTHORIZED USE IS FORBIDDEN WITHOUT WRITTEN CONSENT.

ASAHI/AMERICA
 ISO 9001 CERTIFIED
 19 GREEN STREET, P.O. BOX 653, MALDEN, MA.



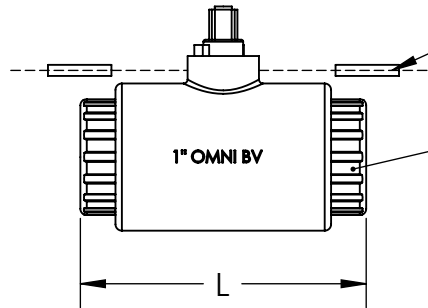
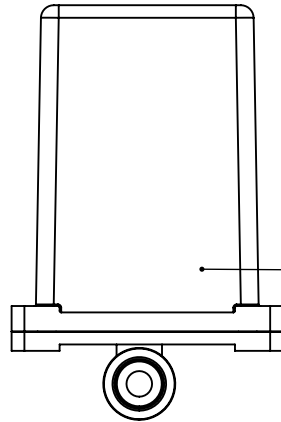
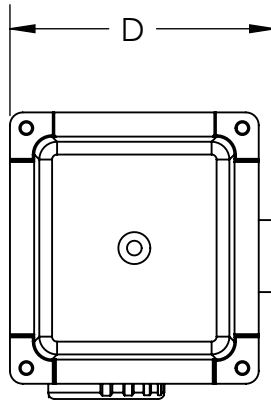
WIRING DIAGRAM FOR ELECTROMNI 115 & 220 VAC

	NAME	DATE
DR	JJG	6/19/07
CHK	K.BLYSTONE	6/19/07
APPD		
PATH		

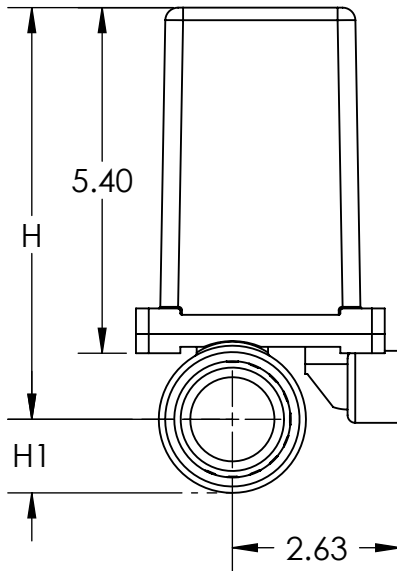
SIZE	DWG. NO.	REV
A	0002EL	C
SCALE	NTS	SHEET 1 OF 1

DO NOT SCALE DRAWING

REV	DATE	DESCRIPTION	DR	APPD
A	3/8/10	FIRST ISSUE	CW	DH



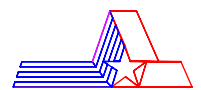
SIZE	H1	H	W	D
1/2"	.61	5.93	3.82	4.14
3/4"	.94	6.15	4.06	4.14
1"	1.16	6.35	4.45	4.14
1-1/4"	1.15	6.36	5.00	4.14
1-1/2"	1.45	6.75	5.94	4.14
2"	1.74	7.04	6.97	4.37



ITEM	DESCRIPTION	MATERIAL	QTY
1	OMNI BALL VALVE	PVC, CPVC, PP, PVDF	1
2	ELECTROMNI ACTUATOR	ABS & PVC	1
3	COUPLING	303 STAINLESS STEEL	1
4	ALLEN SET SCREW	STAINLESS STEEL	2

UNLESS OTHERWISE SPECIFIED		THIS DRAWING AND ALL INFORMATION HEREON IS THE PROPERTY OF ASAHI/AMERICA. ANY COPYING, REPRODUCTION OR UNAUTHORIZED USE IS FORBIDDEN WITHOUT WRITTEN CONSENT.
DIMENSIONS ARE IN INCHES		
MACHINING TOLERANCES:	2 PL DECIMALS ±.01 3 PL DECIMALS ±.005 ANGULAR ±1/2° FRACTIONAL ±1/64	
FABRICATION TOLERANCES:	1/2" - 8" ±1/4 10" AND UP ±1/2 ANGULAR ±1.0°	
MATERIAL:		
FINISH:	N/A	
		PRODUCT:
		WO#/CO#

ASAHI/AMERICA
ISO 9001 CERTIFIED
35 GREEN STREET, P.O. BOX 653, MALDEN, MA.

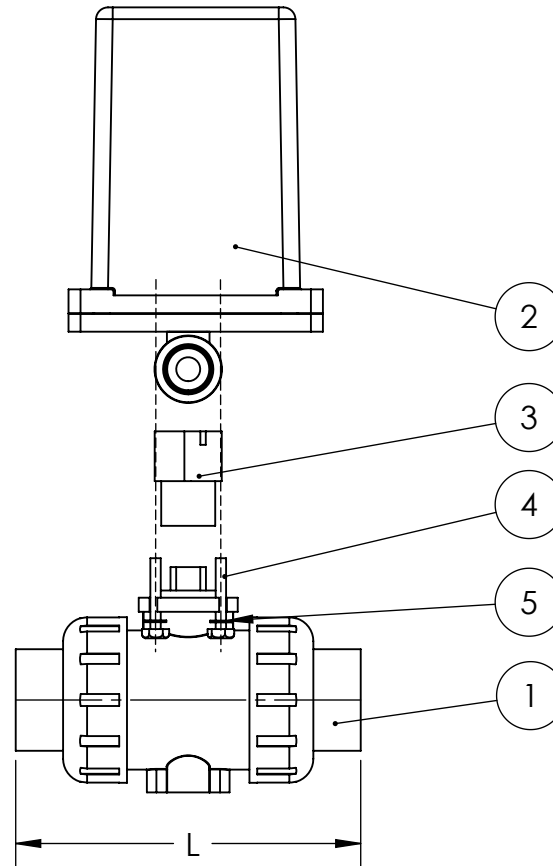
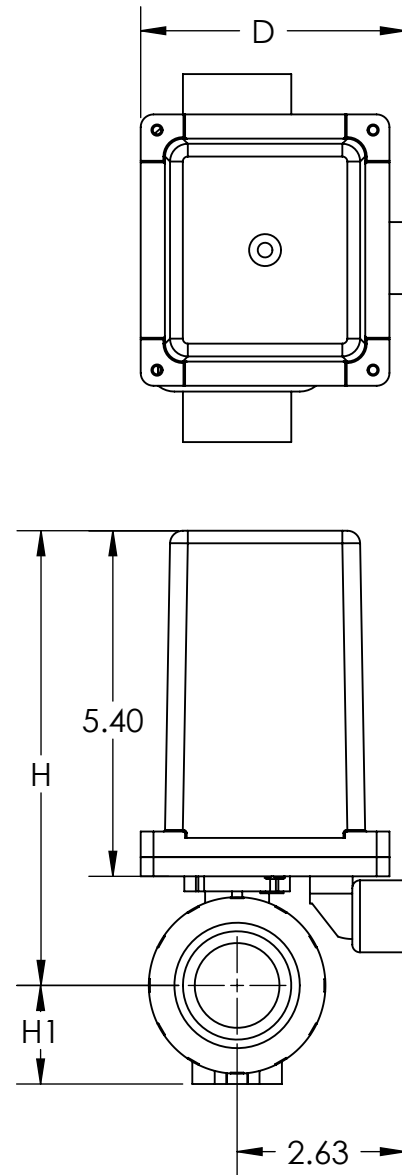


**1/2" THRU 2" OMNI BALL VALVE
ELECTROMNI**

DR	<i>C. Williams</i>	DATE	<i>3/8/10</i>
APPD	<i>D. Hurley</i>	DATE	<i>3/8/10</i>
PROD			
SIZE	A	DWG. NO.	0119BV83
REV	A		
SCALE	1:5	SHEET	1 OF 1

NOTE: The shape and appearance of assembly differ a little with nominal size

REV	DATE	DESCRIPTION	DR	APPD
A	3/8/10	FIRST ISSUE	CW	DH



SIZE	H1	H	L	D
1/2"	1.14	6.58	4.45	4.14
3/4"	1.38	6.83	5.08	4.14
1"	1.54	7.10	5.75	4.14
1-1/4"	1.85	7.46	6.46	4.24
1-1/2"	2.17	7.79	7.24	4.60
2"	2.60	8.25	8.23	4.90

*PVC/CPVC/SOCKET/THREAD FOR FLANGED/OTHER SEE CATALOG

ITEM	DESCRIPTION	MATERIAL	QTY
1	T-21 BALL VALVE	PVC, CPVC, PP, PVDF	1
2	ELECTROMNI ACTUATOR	ABS & PVC	1
3	COUPLING	303 STAINLESS STEEL	1
4	BOLT	STAINLESS STEEL	4
5	FLAT WASHER	STAINLESS STEEL	4

NOTE: The shape and appearance of assembly differ a little with nominal size

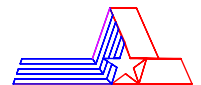
1 - ELECTROMNI (SERIES 83) ACTUATOR IS AVAILABLE IN 110 VAC, 220 VAC, 24 VAC, 12 VAC, 24 VDC, AND 12 VDC MODELS

UNLESS OTHERWISE SPECIFIED	
DIMENSIONS ARE IN INCHES	
MACHINING TOLERANCES:	2 PL DECIMALS ±.01
	3 PL DECIMALS ±.005
	ANGULAR ±1/2°
	FRACTIONAL ±1/64
FABRICATION TOLERANCES:	1/2" - 8" ±1/4
	10" AND UP ±1/2
	ANGULAR ±1.0°
MATERIAL:	
FINISH:	N/A

THIS DRAWING AND ALL INFORMATION HEREON IS THE PROPERTY OF ASAHI/AMERICA. ANY COPYING, REPRODUCTION OR UNAUTHORIZED USE IS FORBIDDEN WITHOUT WRITTEN CONSENT.

	NAME	DATE
DR	<i>C. Williams</i>	3/8/10
APPD	<i>D. Hurley</i>	3/8/10
PROD		

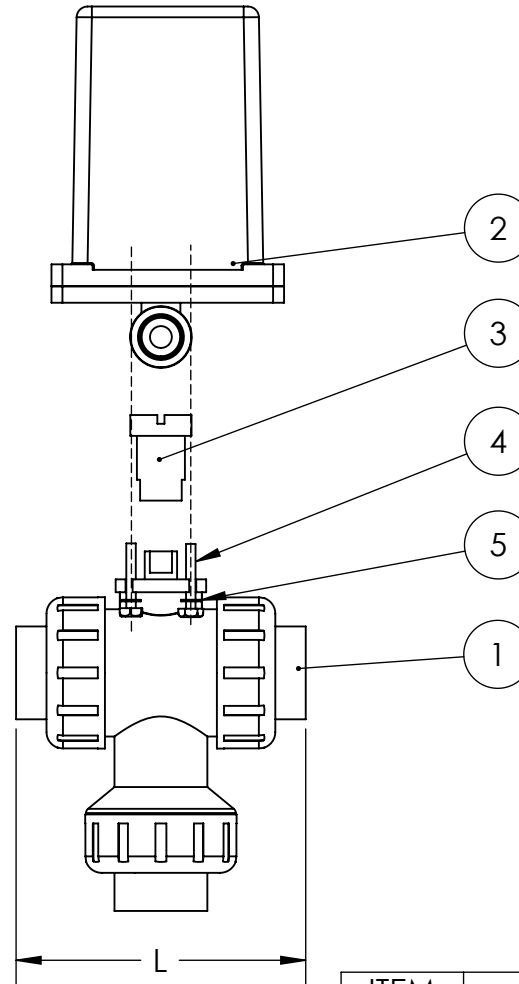
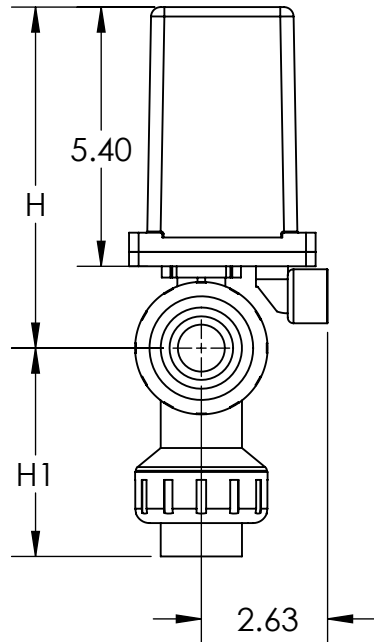
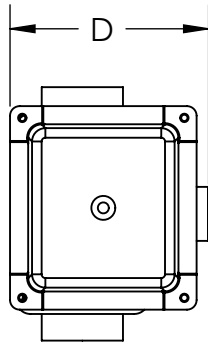
ASAHI/AMERICA
ISO 9001 CERTIFIED
35 GREEN STREET, P.O. BOX 653, MALDEN, MA.



1/2" THRU 2" T-21 BALL VALVE TO SERIES 83 ACTUATOR

SIZE	A	DWG. NO.	0046BV83	REV	A
SCALE	1:5		SHEET 1 OF 1		

REV	DATE	DESCRIPTION	DR	APPD
A	3/8/10	FIRST ISSUE	CW	DH



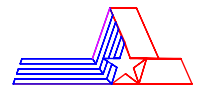
SIZE	H1	H	L	D
1/2"	3.05	6.58	4.45	4.14
3/4"	3.56	6.83	5.08	4.14
1"	4.34	7.11	5.75	4.14
1-1/2"	6.09	7.80	7.24	4.59
2"	6.87	8.25	8.23	5.10

*PVC/CPVC/SOCKET/THREAD FOR FLANGED/OTHER SEE CATALOG

ITEM	DESCRIPTION	MATERIAL	QTY
1	T-21 BALL VALVE	PVC,CPVC,PP,PVDF	1
2	ELECTROMNI ACTUATOR	ABS & PVC	1
3	COUPLING	303 STAINLESS STEEL	1
4	BOLT	STAINLESS STEEL	4
5	FLAT WASHER	STAINLESS STEEL	4

UNLESS OTHERWISE SPECIFIED		THIS DRAWING AND ALL INFORMATION HEREON IS THE PROPERTY OF ASAHI/AMERICA. ANY COPYING, REPRODUCTION OR UNAUTHORIZED USE IS FORBIDDEN WITHOUT WRITTEN CONSENT.	
DIMENSIONS ARE IN INCHES			
MACHINING TOLERANCES:	2 PL DECIMALS	±.01	
	3 PL DECIMALS	±.005	
	ANGULAR	± 1/2°	
	FRACTIONAL	± 1/64	
FABRICATION TOLERANCES:	1/2" - 8"	± 1/4	
	10" AND UP	± 1/2	
	ANGULAR	± 1.0°	
MATERIAL:	PRODUCT:		
FINISH: 125μ"	WO#/CO#		

ASAHI/AMERICA
ISO 9001 CERTIFIED
35 GREEN STREET, P.O. BOX 653, MALDEN, MA.



1/2" THRU 2" T-23 BALL VALVE TO ELECTROMNI ACTUATOR

DR	<i>C. Williams</i>	DATE	<i>3/8/10</i>
APPD	<i>D. Hurley</i>	DATE	<i>3/8/10</i>
PROD			
SIZE	A	DWG. NO.	0132BV83
SCALE	1:5	REV	A
SHEET		1	OF 1

NOTE: The shape and appearance of assembly differ a little with nominal size