



DirectoValve® B Style Electric Motors and Valves

Shutoff/Control Motors

Boom Control motors are 22 RPM for 344B series (0.7 second shutoff valves) and 25 RPM for 346B and 356 series (0.6 second shutoff valves) for 12 VDC systems. Available with E or EC series motors with DIN or CABLE versions. E type motors work with DPDT (double pole, double throw) switch. EC type motors work with simple SPST (single pole, single throw) on/off switch and are compatible with all sprayer controls.

Current draw less than 2 amps (1.7 amps at 40 in.-lbs.).

Electrical connectors can be ordered with a standard number. See page 117 for more information.

Note: 2-way control motors can be rotated 180° to change the cable outlet direction on the valve. There is also an adapter to rotate motors 90°, contact your local representative for more information.

An internal fuse protects the valve and your electrical system, and it resets automatically by disconnecting power to the motor for 20 seconds.

Direct coupled visual indicator to verify position/operation. Yellow oval indicates 22 RPM motor. Yellow diamond indicates 25 RPM motor.

Cover fits snugly over the motor cavity to reduce air space and eliminate condensation. It's sealed and sonically welded to comply with the IP67 rating for submersion under water.

Permanent etched marking with complete motor number and date coded (year, month, day).

Double-wall construction of the gearbox increases strength and maintains permanent lubrication of the durable, all-metal gears.

Motor head assembly is easily detached by pulling a retaining pin allowing manual operation or easy replacement of the motor.

Available for either positive or negative switched electrical systems with a sturdy, built-in double sealed grommet and flat gasket that seals the DIN connector versions. Motor and DIN cables are made of polyurethane.



Regulating Motors

Choosing the proper regulating motor speed is important to maximizing the sprayer's performance. Three speeds are offered at this time: 1 RPM, 3 RPM and 6 RPM. The 1 RPM speed is used mostly in manual systems; it is too slow for automated rate control. The other two speeds are used in automated systems. The 3 RPM is the most popular and opens the valve to the maximum flow in about 6 seconds for the RL valve and about 10 seconds for the PR valves. The 6 RPM motor cuts those times in half.

DIN and Cable Electrical Connector

Both DIN and motor cables are made of polyurethane and are pressure extruded creating a round cable for improved sealing. Polyurethane has twice the strength and three times the tear and abrasion resistance of PVC. Motor cables include over-molded plugs that seal off the ends of cables and wires to prevent seepage. Conductor insulation uses familiar color coding of red, white and black.

DIN cable connectors are constructed of a special over molded elastomeric material that does not require a flat gasket to be sealed. The center screw is made of stainless steel.

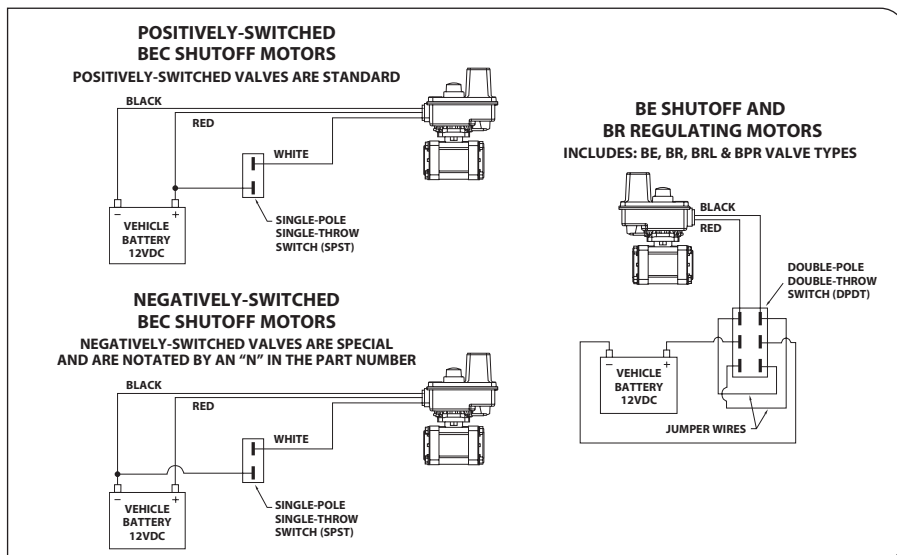
How to Order:

Example: 38082-30, 10 ft. (3 meter) DIN cable.



DIN CABLE	CABLE
38082-05	1.5' (0.5 meter) DIN cable
38082-15	5' (1.5 meter) DIN cable
38082-30	10' (3 meter) DIN cable
38082-60	20' (6 meter) DIN cable

DIN cables are ordered separately.





B Style Shutoff Motor Numbers

344B, 440B, 450B, 460B SERIES			CURRENT DRAW (AMPS)**	346B, 356 AND 490 SERIES			CURRENT DRAW (AMPS)**		CABLE LENGTH
BEC POSITIVE SWITCH MOTOR	*BEC NEGATIVE SWITCH MOTOR	BE SWITCH MOTOR	344B, 440B, 450B, 460B	BEC POSITIVE SWITCH MOTOR	*BEC NEGATIVE SWITCH MOTOR	BE SWITCH MOTOR	346B	356, 490	
50515-22CP03	* 50515-22CN03	* 50533-22C03	1.1	50515-25CP03	* 50515-25CN03	* 50533-25C03	1.75	2.2	1.0' (0.3 meter) cable
50515-22CP05	* 50515-22CN05	50533-22C05	1.1	50515-25CP05	* 50515-25CN05	50533-25C05	1.75	2.2	1.5' (0.5 meter) cable
50515-22CP15	* 50515-22CN15	* 50533-22C15	1.1	50515-25CP15	* 50515-25CN15	* 50533-25C15	1.75	2.2	5' (1.5 meter) cable
50515-22CP60	* 50515-22CN60	* 50533-22C60	1.1	50515-25CP60	* 50515-25CN60	* 50533-25C60	1.75	2.2	20' (6 meter) cable
50515-22DP	* 50515-22DN	* 50533-22D	1.1	50515-25DP	* 50515-25DN	* 50533-25D	1.75	2.2	DIN Electrical Connector

Items marked with "*" are non-stock items.

** Current draw is a nominal rating @ 13.8 VDC and will vary dependent upon valve usage and chemicals used.

Note: DIN cables are ordered separately.

*Bypass Valve (Normally Open) BEC Motors

344B, 440B, 450B, 460B SERIES			CURRENT DRAW (AMPS)**	346B, 356 AND 490 SERIES			CURRENT DRAW (AMPS)**		CABLE LENGTH
BEC POSITIVE SWITCH MOTOR	*BEC NEGATIVE SWITCH MOTOR	BE SWITCH MOTOR	344B, 440B, 450B, 460B	BEC POSITIVE SWITCH MOTOR	*BEC NEGATIVE SWITCH MOTOR	BE SWITCH MOTOR	346B	356, 490	
50994-22CP03	* 50994-22CN03	* 50533-22C03	1.1	50994-25CP03	* 50994-25CN03	* 50533-25C03	1.75	2.2	1.0' (0.3 meter) cable
50994-22CP05	* 50994-22CN05	50533-22C05	1.1	50994-25CP05	* 50994-25CN05	50533-25C05	1.75	2.2	1.5' (0.5 meter) cable
50994-22CP15	* 50994-22CN15	* 50533-22C15	1.1	50994-25CP15	* 50994-25CN15	* 50533-25C15	1.75	2.2	5' (1.5 meter) cable
50994-22CP60	* 50994-22CN60	* 50533-22C60	1.1	50994-25CP60	* 50994-25CN60	* 50533-25C60	1.75	2.2	20' (6 meter) cable
50994-22DP	* 50994-22DN	* 50533-22D	1.1	50994-25DP	* 50994-25DN	* 50533-25D	1.75	2.2	DIN Electrical Connector

Items marked with "*" are non-stock items.

** Current draw is a nominal rating @ 13.8 VDC and will vary dependent upon valve usage and chemicals used.

Note: DIN cables are ordered separately.

344B & 346B Regulating Motors

SPEED (RPM)	R & RL MOTOR NO.	PR MOTOR NO.	CURRENT DRAW (AMPS)**		CABLE LENGTH
			AA344B	AA346B	
1	* 50516-01C03	* 50996-01C03	0.10	0.12	1.0' (0.3 meter) cable
1	* 50516-01C05	* 50996-01C05	0.10	0.12	1.5' (0.5 meter) cable
1	* 50516-01C15	* 50996-01C15	0.10	0.12	5' (1.5 meter) cable
1	* 50516-01C60	* 50996-01C60	0.10	0.12	20' (6 meter) cable
1	* 50516-01D	* 50996-01D	0.10	0.12	DIN Electrical Connector
3	* 50516-03C03	* 50996-03C03	0.15	0.20	1.0' (0.3 meter) cable
3	* 50516-03C05	* 50996-03C05	0.15	0.20	1.5' (0.5 meter) cable
3	* 50516-03C15	* 50996-03C15	0.15	0.20	5' (1.5 meter) cable
3	* 50516-03C60	* 50996-03C60	0.15	0.20	20' (6 meter) cable
3	* 50516-03D	* 50996-03D	0.15	0.20	DIN Electrical Connector
6	* 50516-06C03	* 50996-06C03	0.43	0.50	1.0' (0.3 meter) cable
6	* 50516-06C05	* 50996-06C05	0.43	0.50	1.5' (0.5 meter) cable
6	* 50516-06C15	* 50996-06C15	0.43	0.50	5' (1.5 meter) cable
6	* 50516-06C60	* 50996-06C60	0.43	0.50	20' (6 meter) cable
6	* 50516-06D	* 50996-06D	0.43	0.50	DIN Electrical Connector

Items marked with "*" are non-stock items.

** Current draw is a nominal rating @ 13.8 VDC and will vary dependent upon valve usage and chemicals used.

Note: DIN cables are ordered separately. See page 78 for DIN cable options.

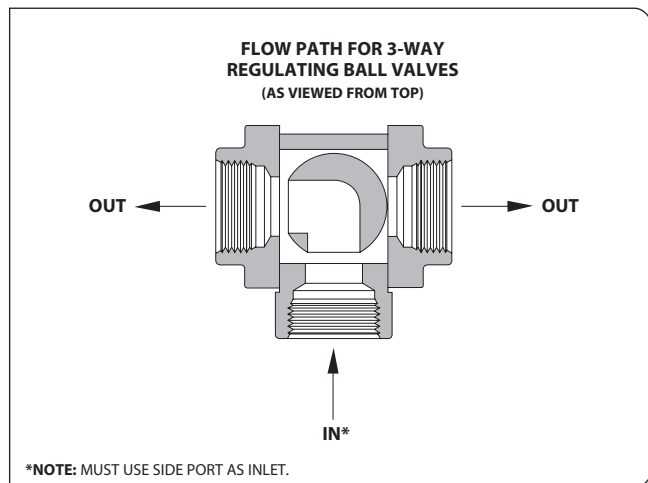


344B and 346B Pressure Regulating Ball Valves

The 340 series electrical regulating valves are designed to produce linear flow regulation and shutoff control in agricultural applications. Both models are available in several styles and motor speeds to accommodate different types of applications.

Features:

- Available in 2-way and 3-way versions.
- Available in 1, 3, or 6 RPM motor speeds. Note: The PR versions cycle time is double that of an R or RL version.
- Two-wire lead provides easy installation with 12 VDC systems.
- Low power consumption, less than 1 amp.
- Offered in a variety of inlet/outlet connections. See pages 114–116 for additional information and options.
- Wetted parts are Nylon, polypropylene, stainless steel, Teflon®, and Viton®.
- See pages 78–79 for additional information on B style motors.



R & RL Series



344 BPR Series



346 R Series



346 BPR Series

Butterfly Valve

AA(B)244C-3/4 Remote Control Electric Regulating Butterfly Valve

The AA244C remote control electric regulation valve has been specifically designed to provide remote pressure control in agricultural applications using DirectoValve AA144A or AA145 solenoid shutoff valves.

Features:

- Unrestricted flow when wide open – Flow Rate: 28 GPM (106 l/min) at 5 PSI (0.34 bar) drop, 40 GPM (151 l/min) at 10 PSI (0.69 bar) pressure drop.
- Bypass flow rate: 2 GPM (7.5 l/min) @ 10 PSI (0.7 bar).

- Operates in 12 VDC system and may be controlled by a double-pole double-throw spring-centered switch.
- Maximum operating pressure of 100 PSI (7 bar).
- Two-wire lead for use in 12 VDC system.
- 3/4" (F) NPT or BSPT connections.
- Easy installation (flows either direction).
- Good corrosion resistance.
- Low current draw (0.10 AMP).
- 20 second response time.



How to order:

Specify model number.
Example: AA(B)244C-3/4
(B) = BSPT



Sample Valve Part Number:

(B)344BRL-2FS-01C15AB

OUTLET THREADS	
PART CODE	DESCRIPTION
BLANK	ALL THREADS TO BE NPT (IF EQUIPPED)
(B)	ALL THREADS TO BE BSPT (IF EQUIPPED)

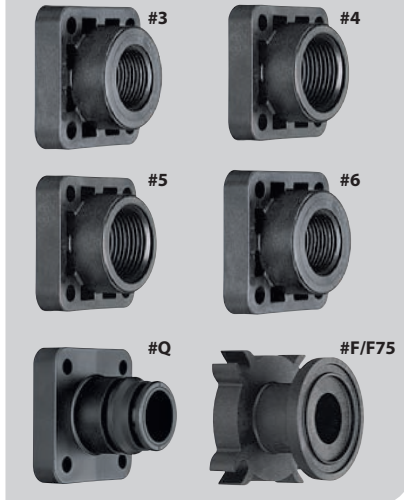
MODEL SPECIFICATIONS	
PART CODE	DESCRIPTION
344B/346B	REGULATING VALVE

MOTOR SPECIFICATIONS	
PART CODE	DESCRIPTION
R	REGULATING VALVE
RL	LINEAR REGULATING VALVE (344 SERIES ONLY)
*PR	PRESSURE REGULATING VALVE

*Not available in stainless steel.

VALVE TYPES	
PART CODE	DESCRIPTION
2	2-WAY VALVE
3	3-WAY VALVE (PR & R ONLY)

END CAPS OR OUTLET FITTINGS	
PART CODE	DESCRIPTION
3	3/4" PIPE THREAD (344 SERIES ONLY)
4	1" PIPE THREAD (344 SERIES ONLY)
5	1 1/4" PIPE THREAD (346 SERIES ONLY)
6	1 1/2" PIPE THREAD (346 SERIES ONLY)
Q	QUICK CONNECT (344 SERIES ONLY)
F	50 SERIES FLANGE
F75	75 SERIES FLANGE (346 SERIES ONLY)



INLET/OUTLET REQUIRED CONNECTIONS
THE INLET/OUTLET FITTINGS ARE ORDERED SEPARATELY

- 3, 4, 5, 6:** When ordering 3/4" (3), 1" (4), 1 1/4" (5) or 1 1/2" (6) threaded NPT or BSPT inlet/outlet type valve connections, the inlets and outlets will be included during assembly.
- F:** When ordering F or F75 (flange) type valve connections, the inlet/outlet fittings are ordered separately. Clamps and flange fittings are required. See pages 114–115 for flange fitting options.
- Q:** When ordering QC (Quick Connect) hose barb type valve fittings, the inlet/outlet connections are ordered separately. Two 45529 QC fittings are required for 2-way valves and three each for 3-way valves. See page 116 for QC options.

Note: Many valve configurations are possible by mixing and matching flange fittings.

WIRING CONNECTORS

SPECIFY ELECTRICAL CONNECTOR STYLE AND PIN-OUTS. IF NO CONNECTOR IS NEEDED LEAVE BLANK.

See page 117 for electrical connectors and codes.

MOTOR CABLES	
PART CODE	DESCRIPTION
C	0.5-METER CABLE
* C03	0.3-METER CABLE
* C15	1.5-METER CABLE
* C60	6.0-METER CABLE
D	DIN CONNECTOR

Items marked with "*" are non-stock items. Please contact your regional sales office for ordering and availability information.

Note: DIN cables must be ordered separately. See page 78 for DIN cables.

MOTOR SPEEDS	
PART CODE	DESCRIPTION
01	1 RPM (18 SECOND CYCLE TIME) MOTOR
03	3 RPM (6 SECOND CYCLE TIME) MOTOR
06	6 RPM (3 SECOND CYCLE TIME) MOTOR

Note: PR series cycle times are doubled.

BALL MATERIAL SPECIFICATIONS	
PART CODE	DESCRIPTION
BLANK	POLYPROPYLENE BALL
S	STAINLESS STEEL BALL (R & RL SERIES ONLY)

REPAIR KITS	
AB344AE-KIT	AB346B-KIT

Note: AB344AE-KIT for 344A&B Valves