

Mounting Instructions

D103441X012
February 2012

DVC6200 or DVC2000
Digital Valve Controller on
657 and 667 Size 30-60 Actuators

Use these instructions to mount a Fisher® FIELDVUE™ DVC6200 or DVC2000 digital valve controller on Fisher 657 and 667 size 30-60 actuators.

⚠ WARNING

Avoid personal injury or property damage from sudden release of process pressure or bursting of parts. Before performing any maintenance operations:

- **Always wear protective clothing, gloves, and eyewear.**
- **Do not remove the actuator from the valve while the valve is still pressurized.**
- **Disconnect any operating lines providing air pressure, electric power, or a control signal to the actuator. Be sure the actuator cannot suddenly open or close the control valve.**
- **Use bypass valves or completely shut off the process to isolate the control valve from process pressure. Relieve process pressure from both sides of the control valve.**
- **Vent the pneumatic actuator loading pressure and relieve any actuator spring precompression.**
- **Use lock-out procedures to be sure that the above measures stay in effect while you work on the equipment.**
- **Check with your process or safety engineer for any additional measures that must be taken to protect against process media.**

Refer to figure 2 and the parts list for mounting parts identification. Refer to the DVC6200 or DVC2000 digital valve controller instruction manual for digital controller parts identification. Refer to the appropriate actuator instruction manual for actuator installation, operation, maintenance, and parts identification.

1. Isolate the control valve from the process line pressure and release pressure from both sides of the valve body. Shut off all pressure lines to the actuator, releasing all pressure from the actuator. Use lock-out procedures to be sure that the above measures stay in effect while you work on the equipment.

⚠ WARNING

To avoid personal injury due to the sudden, uncontrolled movement of parts, do not loosen the stem connector cap screws when the stem connector has spring force applied to it.

2. During the attachment of the connector arm (key 3) to the valve stem connector it will be necessary to loosen the stem connector cap screws. Consult the appropriate actuator instruction manual for proper actuator disassembly and reassembly. Install the connector arm (key 3) when reassembling the stem connector assembly. Leave the cap screws loose enough to allow side-to-side adjustment.

Note

The stem connector imperial cap screws are the same diameter as the metric hex head cap screws (key 1b) used to mount the DVC6200 to the mounting bracket, but are NOT interchangeable.

3. Attach the extension arm (key 6) to the connector arm using two allen head screws (key 4) but do not tighten. See figure 2 for extension arm orientation.

4. Attach the magnet assembly (key 5) to the extension arm with two allen head machine screws (key 4) but do not tighten (the magnet assembly can be inverted 180° without effect).

5. Install the three hex head cap screws on the backside of the mounting bracket and roll the O-rings on the threads of the cap screws.

6. Attach the mounting bracket assembly (key 1) to the yoke using the two socket head screws (key 2).

7. Attach the black plastic alignment template to the mounting bracket by inserting the two protruding posts into the mounting holes in the bracket and simultaneously positioning the magnet assembly so that it can slide into the channel in the alignment template. The magnet assembly should be fully in the alignment template channel so that the extension arm is contacting the back of the alignment template but not bending it. Tighten the stem connector assembly per the appropriate actuator instruction manual. Tighten the allen head screws (key 4), attaching the extension arm to the connector arm but do not yet tighten the screws attaching the magnet assembly.

8. For an air-to extend actuator, slide the magnet assembly (key 5) so that the bottom marking aligns with



**DVC6200 or DVC2000
Digital Valve Controller on
657 and 667 Size 30-60 Actuators**

Mounting Instructions

D103441X012
February 2012

sensor index mark on the alignment template (see figure 1). The magnet assembly's top marking is used for air-to-retract. The mounting bracket may require vertical repositioning to get the magnet assembly in the correct location. When the magnet assembly is properly positioned, remove the alignment template and tighten the two allen head machine screws (key 4).

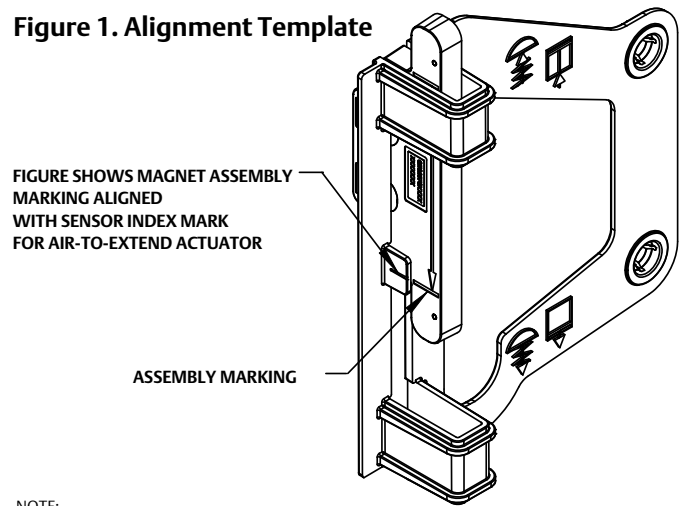
9. Attach the digital valve controller to the mounting bracket and tighten the three hex head cap screws (key 1b).

10. Check the position of the magnet assembly (key 5) in the channel of the digital valve controller housing and ensure the magnet assembly is visually centered between the channel walls and has adequate clearance with the backside of the channel (approximately 3 mm).

11. Connect and calibrate the digital valve controller as described in the instruction manual or quick start guide.

For additional information concerning mounting, setup, calibration, or maintenance of the DVC6200 or DVC2000 digital valve controller, refer to the appropriate instruction manual.

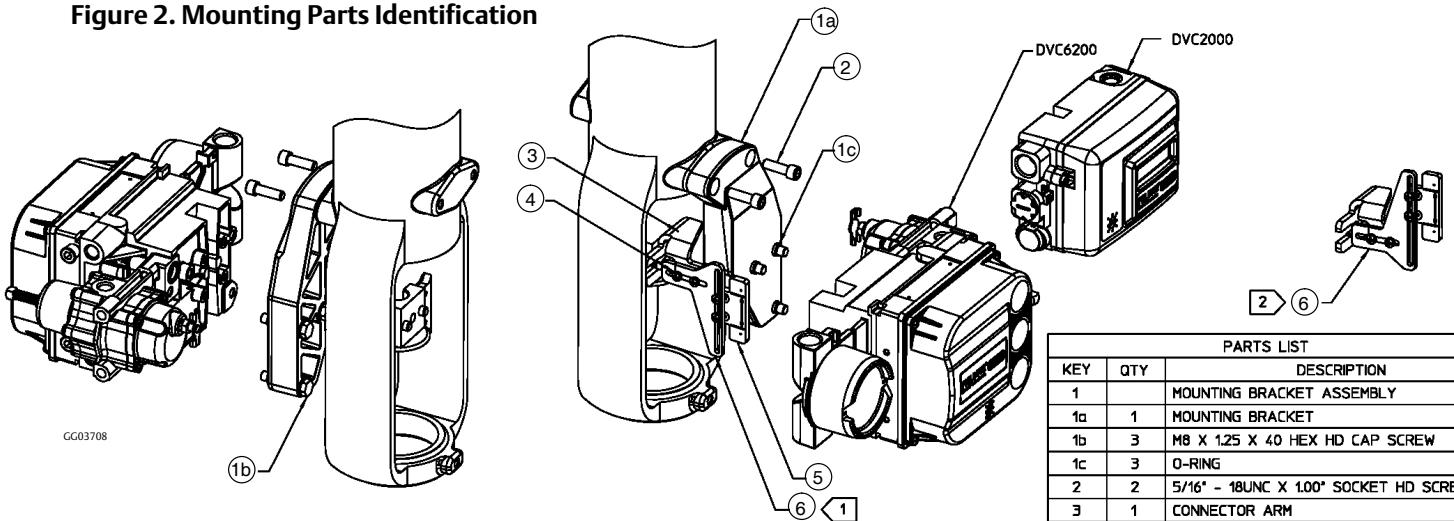
Figure 1. Alignment Template



NOTE:
DURING THE COMPLETE STROKE OF THE ACTUATOR, AT ANY PARTICULAR POSITION, THE DIGITAL VALVE CONTROLLER HALL SENSOR MUST REMAIN WITHIN THE MARKING SHOWN ON THE MAGNET ASSEMBLY

GE43826

Figure 2. Mounting Parts Identification



GG03708

- 1 EXTENSION ARM ORIENTATION FOR ACTUATOR SIZE 30-40
- 2 EXTENSION ARM ORIENTATION FOR ACTUATOR SIZE 45-60

PARTS LIST		
KEY	QTY	DESCRIPTION
1		MOUNTING BRACKET ASSEMBLY
1a	1	MOUNTING BRACKET
1b	3	M8 X 1.25 X 40 HEX HD CAP SCREW
1c	3	O-RING
2	2	5/16" - 18UNC X 1.00" SOCKET HD SCREWS
3	1	CONNECTOR ARM
4	4	M4 X 0.7 X 10 ALLEN HD MACHINE SCREW
5	1	MAGNET ASSEMBLY
6	1	EXTENSION ARM
---	1	ALIGNMENT TEMPLATE

Neither Emerson, Emerson Process Management, nor any of their affiliated entities assumes responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use, and maintenance of any product remains solely with the purchaser and end user.

Fisher and FIELDVUE are marks owned by one of the companies in the Emerson Process Management business division of Emerson Electric Co. Emerson Process Management, Emerson, and the Emerson logo are trademarks and service marks of Emerson Electric Co. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available upon request. We reserve the right to modify or improve the designs or specifications of such products at any time without notice.

Emerson Process Management
Marshalltown, Iowa 50158 USA
Sorocaba, 18087 Brazil
Chatham, Kent ME4 4QZ UK
Dubai, United Arab Emirates
Singapore 128461 Singapore

www.Fisher.com

