

Mounting Instructions

D103462X012

June 2010

DVC6200 Digital Valve Controller on 585C and 471-16, Size 60-130 with 4 to 8 Inch Travel (Linear Roller Cam)

Use these instructions to mount a Fisher® FIELDVUE™ DVC6200 digital valve controller on Fisher 585C and 471-16 Size 60-130 actuators, with 4 to 8 inch travel.

WARNING

Avoid personal injury or property damage from sudden release of process pressure or bursting of parts. Before performing any installation 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 3 and the parts list for mounting parts identification. Refer to the DVC6200 digital valve controller instruction manual for digital valve controller parts identification. Refer to the appropriate actuator instruction manual for actuator installation, operation, maintenance, and parts identification. Figure 1 shows the arced feedback assembly.

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 actuator. Use lock-out procedures to be sure that the above measures stay in effect while you work on the equipment.
2. During the attachment of cam bracket (key 3) to the valve stem connector it will be necessary to remove the stem connector cap screws. Consult the appropriate

actuator instruction manual for proper actuator disassembly and reassembly.

3. Attach the cam bracket (key 3) to the stem connector using two stud bolts (key 1), two plain washers (key 4) and four hex nuts (key 6). If provided, use spacers (key 2) and/or two lock washers (key 5) to attach the cam bracket to stem connector, as shown in figure 4.

4. Attach the cam (key 8) to the cam bracket using plain washers (key 9), hex head screws (key 10), lock washers (key 11) and hex nuts (key 12). If provided, use spacers (key 7) in between cam and cam bracket, as shown in figure 4. Ensure that the cam is oriented as per the mounting assembly drawing.

5. Attach mounting plate(bracket) (key 13) to actuator yoke top mounting face using two lock washers (key 14) and hex head screws (key 15). If provided, use the spacer (key 16) in between mounting plate and yoke mounting face, as shown in figure 4. Similarly, attach the mounting plate to bottom yoke mounting by using a spacer (key 17), stud (key 18), plain washer (key 19), lock washer (key 14) and hex nut (key 20).

6. Attach the digital valve controller to the arced feedback assembly (key 21) using the four metric hex socket cap screws (key 22).

7. Attach the arced feedback assembly along with the digital valve controller to the mounting plate (bracket) using the four imperial hex socket cap screws (key 23) as shown in figure 3. Ensure that the roller of arced feedback assembly is centered and resting on the cam surface as shown in figure 2.

8. Ensure that the cam is positioned so that when the actuator stem is fully extended the roller lines up with the mark on the cam.

9. Make pneumatic and electrical connections to the digital valve controller as described in the digital valve controller instruction manual.

10. It may be necessary to fine tune the placement of the cam so that the digital valve controllers receives the proper feedback by lining up as shown in figure 2.

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

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

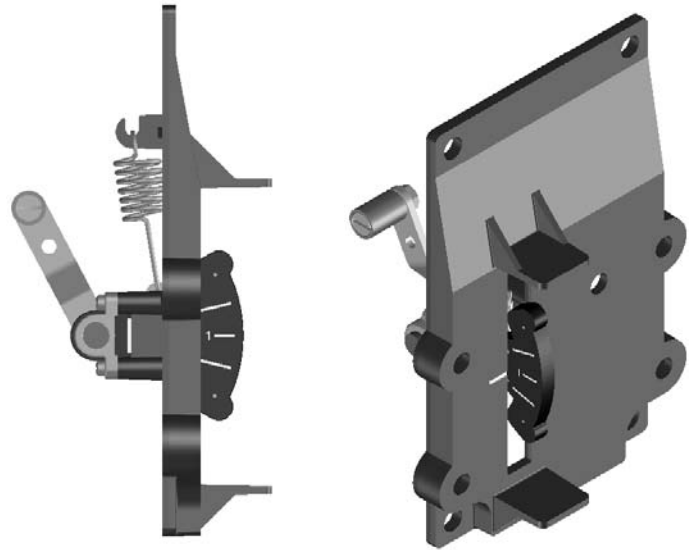


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Note

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GE42132

Figure 1. Linear Roller Feedback

PARTS LIST	
KEY	DESCRIPTION
1	STUD BOLTS
2	SPACER
3	CAM BRACKET
4	PLAIN WASHER
5	LOCK WASHER
6	HEX NUT
7	SPACER
8	CAM
9	PLAIN WASHER
10	HEX HD SCREWS
11	LOCK WASHER
12	HEX NUT
13	MOUNTING PLATE (BRACKET)
14	LOCK WASHER
15	HEX HD SCREWS
16	SPACER
17	SPACER
18	STUD, CONT THD
19	PLAIN WASHER
20	HEX NUT
21	ARCED FEEDBACK ASSEMBLY
22	SOCKET SCREWS (METRIC) ¹
23	SOCKET SCREWS (IMPERIAL) ²

1. METRIC SOCKET SCREWS HAVE A SLIGHTLY LARGER HEAD THAN THE IMPERIAL SOCKET SCREWS.
2. THE IMPERIAL SOCKET SCREWS CAN BE IDENTIFIED BY THE COARSER THREADS.

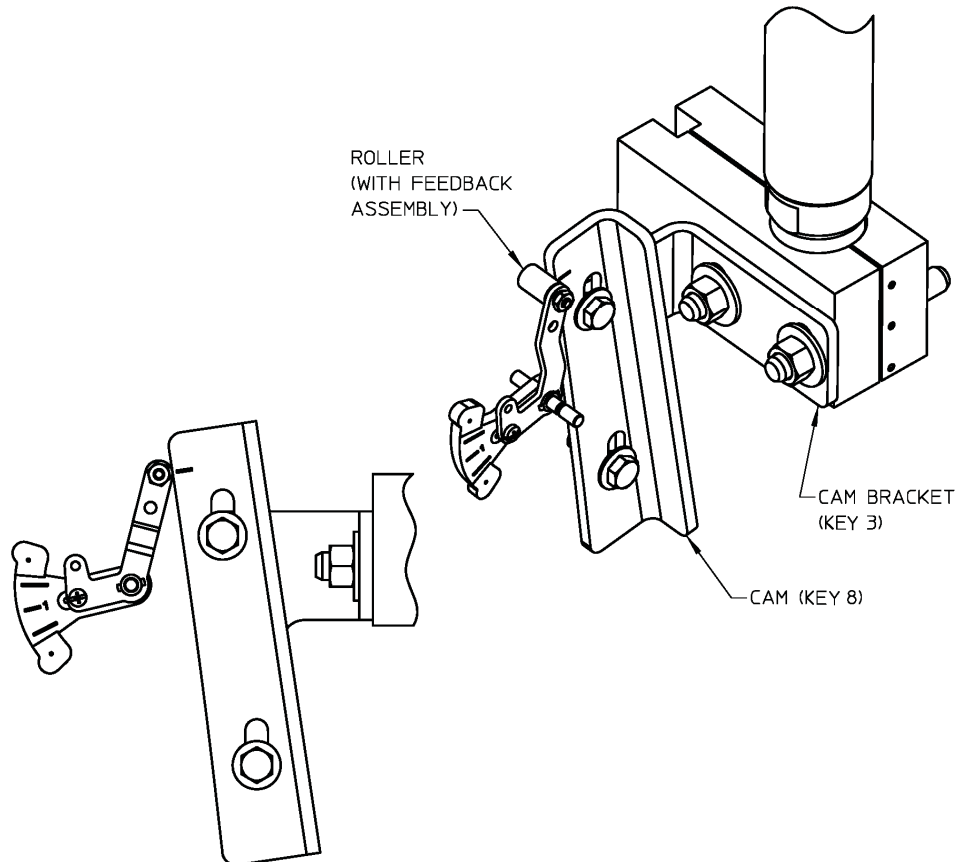
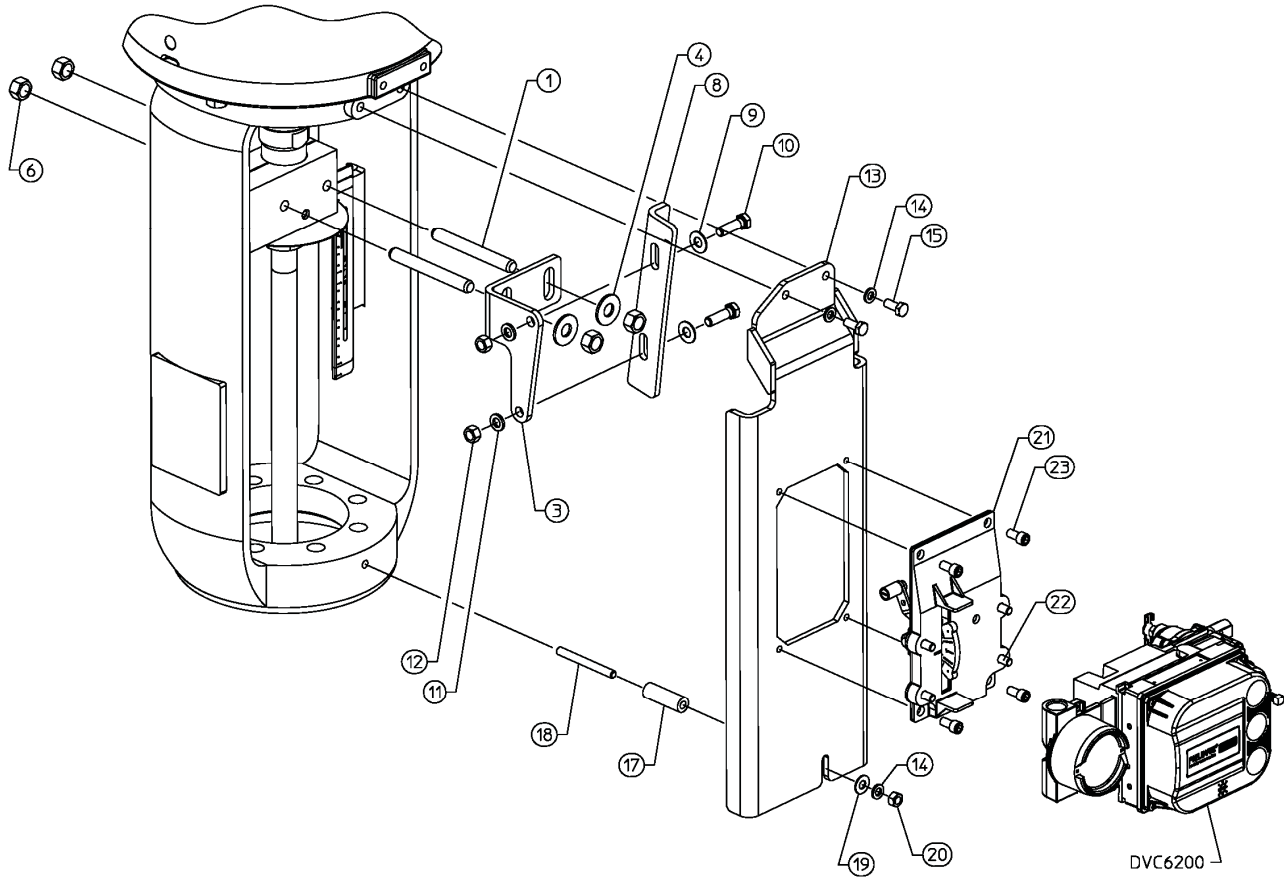


Figure 2. Installing Cam and Roller Feedback Assembly

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NOTE: REFER TO MOUNTING ASSEMBLY DRAWING FOR THE SIZE OF PARTS AND QUANTITY USED

Figure 3. Mounting Parts Identification (refer to the Parts List on page 2)

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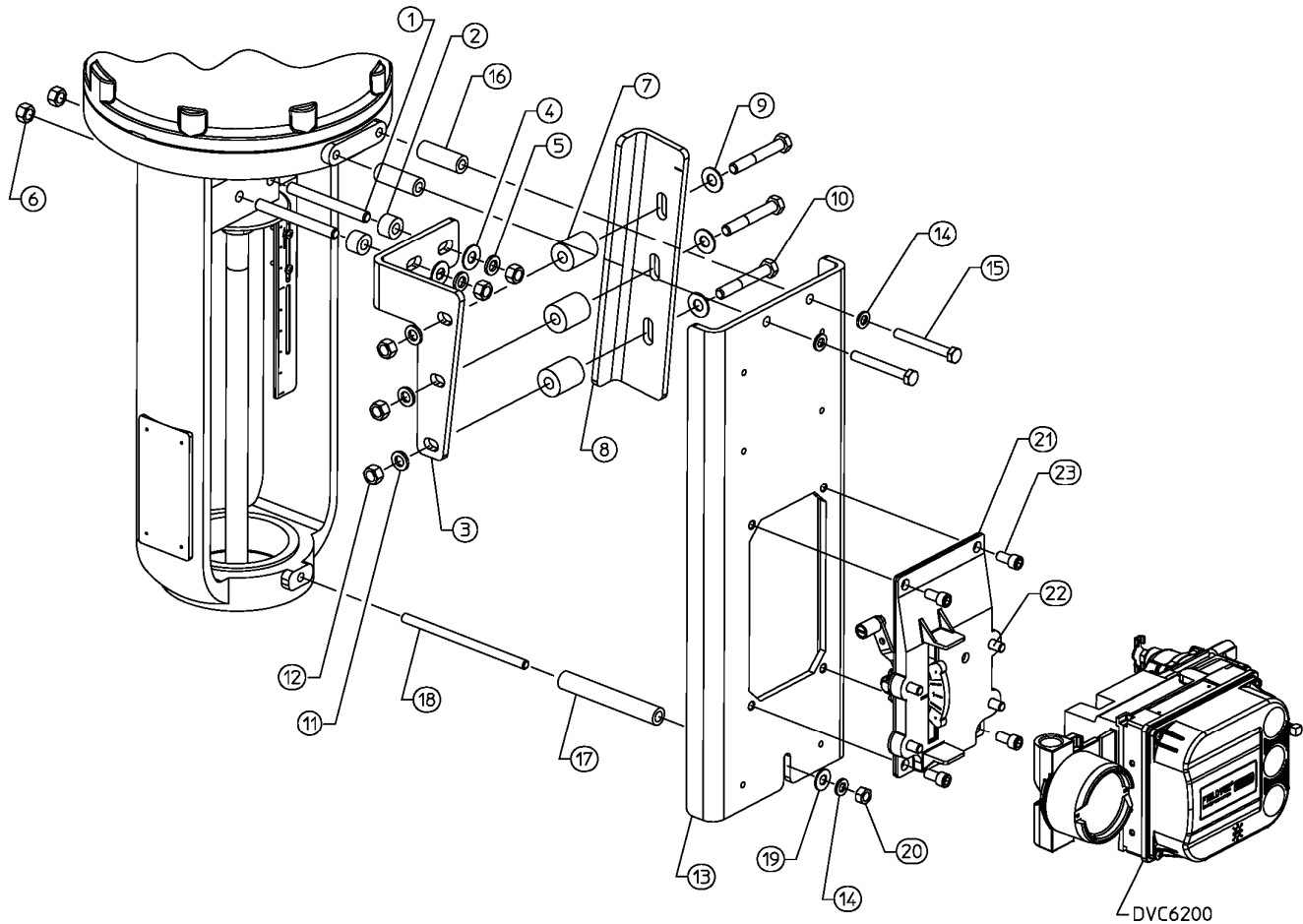


Figure 4. Mounting Parts Identification (with Spacer) (refer to the Parts List on page 2)

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