Fisher[™] FIELDVUE[™] DVC6200 Remote Mount Digital Valve Controller

The FIELDVUE DVC6200 digital valve controller has been successfully installed in a variety of applications since the launch in January 2010. However, there are applications where a higher temperature rating is needed. Additionally, some applications require that the DVC6200 handle higher levels of vibration.

The DVC6200 remote mount (DVC6205/DVC6215) option enables the linkage-less, non-contact feedback travel sensor (DVC6215) available to be mounted on the valve while the base unit (DVC6205), with all other components like the I/P converter, pneumatic relay and Printed wiring Board, is mounted away from the valve.







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Construction

The DVC6205/ DVC6215 has two primary components (figure 1). The first component is the remote travel sensor (DVC6215) that is mounted directly on the valve. The other component is the base unit (DVC6205) which can be pipe stand or panel mounted. The base unit houses the components such as the I/P converter, relay, and printed wiring board.

There are two housing styles (figure 2) for the remote travel sensor (DVC6215). Housing Style A is used for an integral mount on the GX, while Housing Style B is used for all other actuators.

Figure 1. FIELLDVUE DVC6205/DVC6215 Components



Figure 2. Housing Styles



Installation

Connect all the terminals in the remote travel sensor (DVC6215) to the corresponding terminals in the base unit (DVC6205). See figure 3 for details.

The wire between remote travel sensor and the base unit needs to be in a flexible or rigid metal conduit for EMC compliance. Figure 4 shows a commonly available flexible metal conduit.

Figure 3. Terminal Details for Connecting the Base Unit and Feedback Unit for Remote-Mounted Digital Valve Controllers



Figure 4. Thermoplastic Rubber Covered Liquid Tight Conduit



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Flexible metal conduits can be used with appropriate connectors (figure 5).

Figure 5. Connectors



The remote travel sensor can be separated from the base unit by 30 meters (100 feet) without impacting performance, similar to the DVC6005/ DVC6015.

Operating Ambient Temperature Limits

Suitable for temperature range from – 52 $^\circ$ C to 125 $^\circ$ C (-62 $^\circ$ F to +257 $^\circ$ F)

The DVC6205 base unit is rated for -52° C to +85° C (-62°F to +185° F)

Increased tolerance to vibration

All components of the digital valve controller with the exception of the travel sensor are mounted on a panel or on a pipe stand.

Linkage-less, Non-Contact feedback technology eliminates wear in the feedback mechanism.

Performance

The performance of the DVC6205/ DVC6215 is the same as that of the DVC6200 digital valve controller See product bulletin 62.1:DVC6200 (D103415X012)

Protocol & Tiering Supported

The DVC6205/ DVC6215 supports HART[®], FOUNDATION fieldbus and PROFIBUS communication protocols

All tiers currently supported by the DVC6200, DVC6200f & DVC6200P are supported by the DVC6205/DVC6215

Mountings

The DVC6215 shares the same mounting hole layout as the DVC2000 & DVC6200 instruments. The DVC6200/ DVC2000 common kits are suitable for the DVC6215.

Contact your <u>Emerson sales office</u> for mounting kit information

User Interface Requirements

The user interface that supports the DVC6200 also supports the DVC6205/ DVC6215:

■ ValveLink[™] software 10.2 or later, ■ ValveLink Mobile (all versions) ■ DVC6000/DVC6200 DD Revision 3 & 1

Hazardous Area Approvals

Many third party hazardous area approvals are in place including CSA, IEC Ex, ATEX, FM, NEPSI, KGS, NEPSI, and CUTR

Contact your Emerson sales office for approval specific information

Construction Materials

Housing, module base, terminal box, and remote sensor: A03600 low copper aluminum alloy (only)

Cover: Thermoplastic polyester

Elastomers: Nitrile (standard), Fluorosilicone (extreme temperature)

Connections

Supply Pressure: 1/4 NPT internal and integral pad for mounting 67CFR regulator

Output Pressure: 1/4 NPT internal

Tubing: 3/8-inch recommended

Vent: 3/8 NPT internal

Electrical: 1/2 NPT internal or M20

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