

CSA (C/US) Hazardous Area Approvals Fisher™ LCP100 Local Control Panel

Hazardous Area Classifications and Special Instructions for “Safe Use” and Installations in Hazardous Locations

Certain nameplates may carry more than one approval, and each approval may have unique installation/wiring requirements and/or conditions of “safe use”. These special instructions for “safe use” are in addition to, and may override, the standard installation procedures. Special instructions are listed by approval.

Note

This information supplements the nameplate markings affixed to the product and the LCP100 Local Control Panel instruction manual ([D103272X012](#)), available from your Emerson sales office, Local Business Partner, or at [Fisher.com](#).

Always refer to the nameplate itself to identify the appropriate certification.

⚠ WARNING

Failure to follow these conditions of “safe use” could result in personal injury or property damage from fire or explosion, or area re-classification.

Class I Zone 0 AEx ia IIB T4 Ga, IP66 - Loop Mode only

Refer to drawing GE75327, shown in figure 2, 3, and 4

Class I Zone 1 AEx e mb [ib] IIC T4 Gb, IP66

Class I Zone 2 AEx ic IIC T4 Gc, IP66

Non-incendive when installed with the following entity parameters; $U_i = 27$ VDC, $C_i = 1.1$ nF, $L_i = 0$ mH

Class I Division 2 Groups ABCD T4

Rated 30 VDC maximum; 100 mA maximum; temperature code rating T4, ambient temperature range -40°C to 65°C

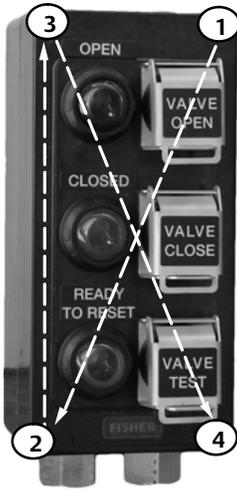
Note

Ratings are applicable for both Canada and USA.

Special Conditions of Use

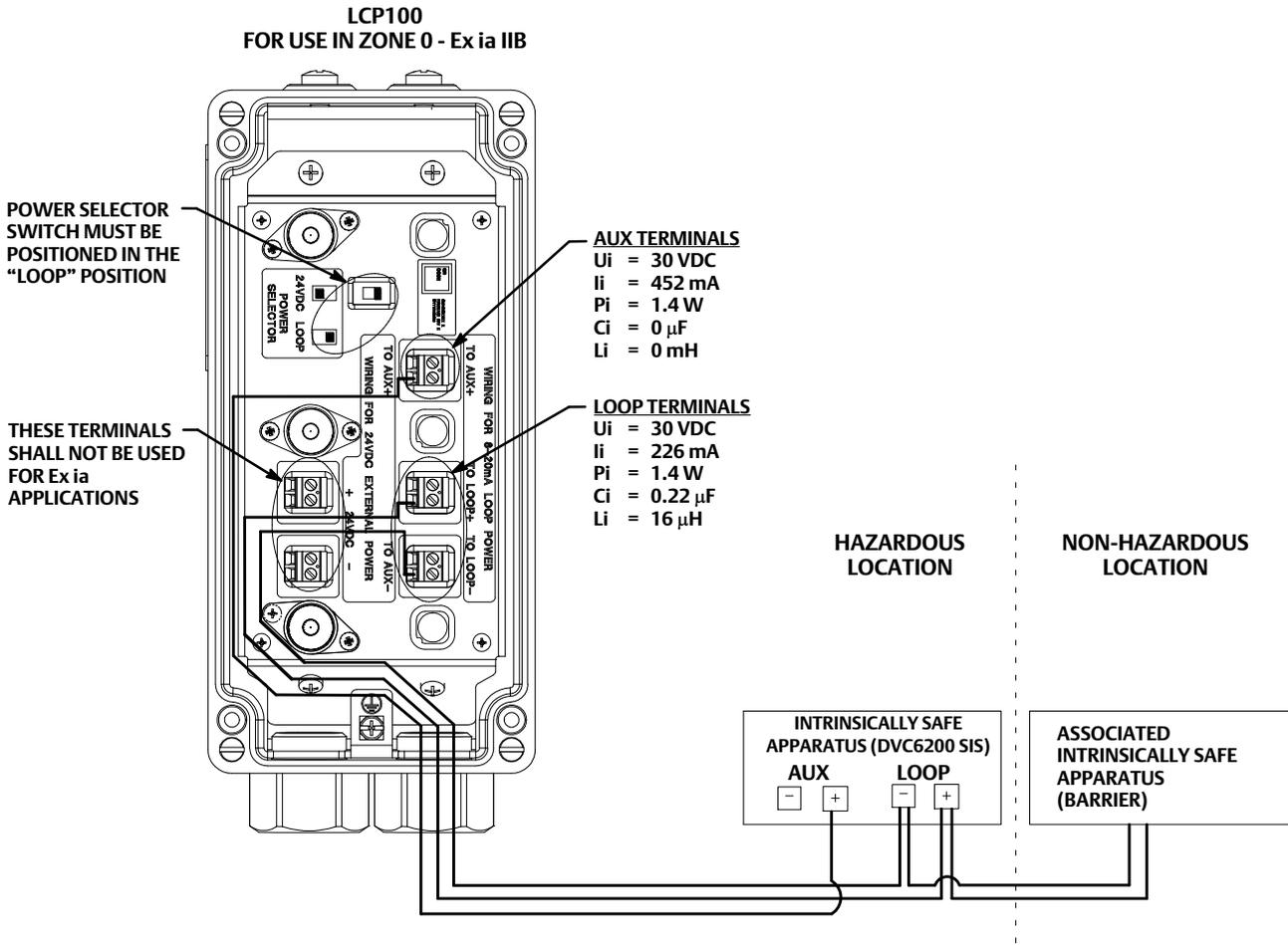
1. Install in an area that has a low risk of mechanical damage.
2. Install the cover, tightening the screws evenly in a criss-cross pattern, such as the one indicated in figure 1, to a torque of 2.82 N • m (25 lbf • in) to help ensure the cover is properly installed.

Figure 1. Proper Cover Installation



NOTE: TIGHTEN THE SCREWS IN A CRISS-CROSS PATTERN TO HELP ENSURE PROPER COVER INSTALLATION.

Figure 2. Wiring Configuration from Barrier to Fisher DVC6200 SIS to LCP100 - Loop-Powered Only (Drawing GE75327) (See Notes in Figure 3)



GE75327-Sheet 1

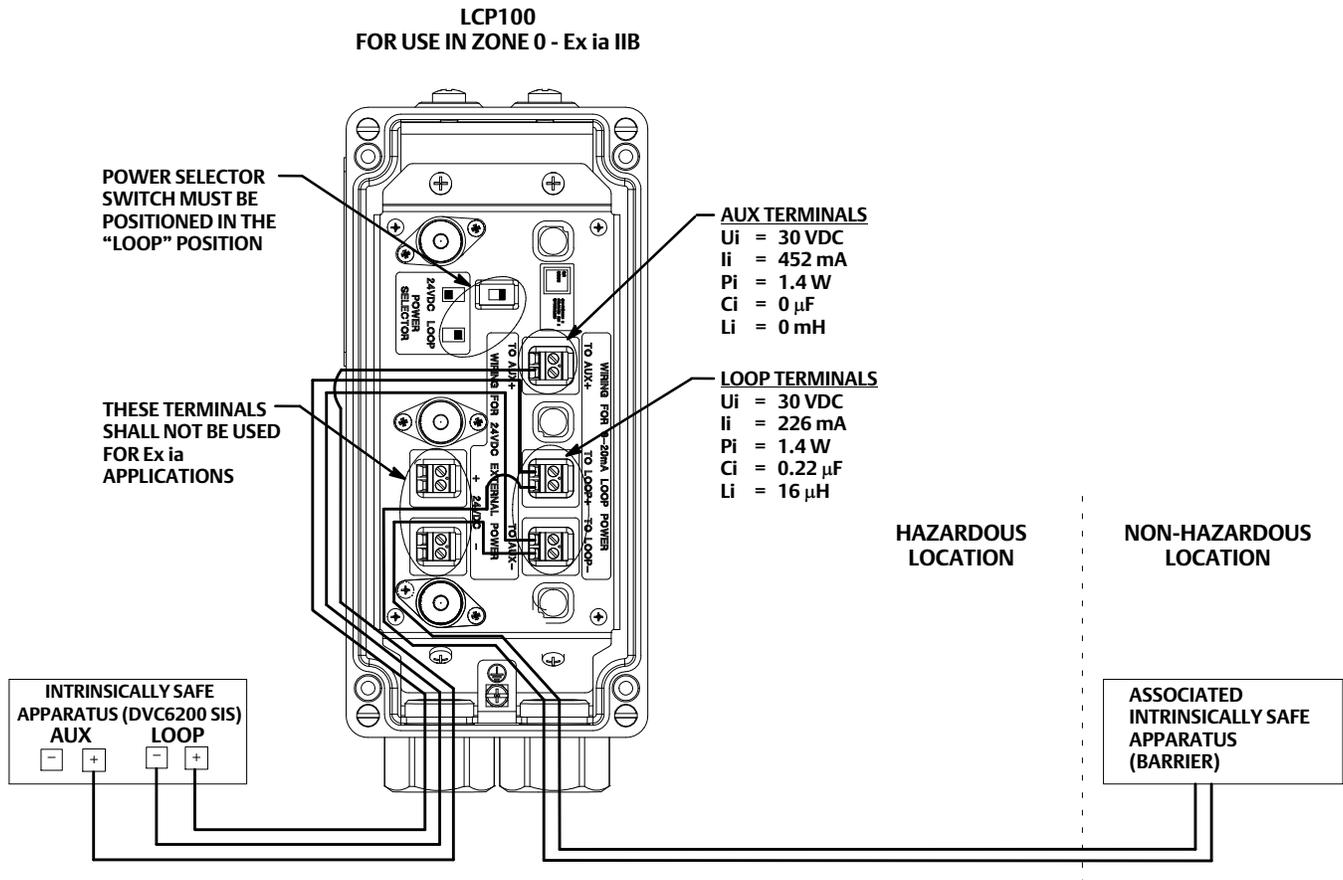
Figure 3. Schematic Notes for Figure 2 and Figure 4

NOTES:

1. FOR Ex ia APPLICATIONS THE FOLLOWING INFORMATION SHALL BE OBSERVED.
 - a) THE POWER SELECTOR SWITCH MUST BE POSITIONED IN THE "LOOP" MODE POSITION.
 - b) NO WIRING CONNECTIONS SHALL BE MADE TO THE 24 VDC POWER TERMINALS.
 - c) THE OVERALL GAS GROUP RATING OF THE INTRINSICALLY SAFE CIRCUIT WILL BE LOWEST GAS GROUPING OF ALL APPARATUS FORMING THE CIRCUIT. FOR EXAMPLE, A CIRCUIT WITH BOTH IIB AND IIC APPARATUS WILL HAVE AN OVERALL CIRCUIT GAS RATING OF IIB.
 - d) THE LEVEL OF PROTECTION OF THE INTRINSICALLY SAFE CIRCUIT WILL BE THE LOWEST LEVEL OF ALL APPARATUS FORMING THE CIRCUIT. FOR EXAMPLE, A CIRCUIT WITH BOTH "ia" AND "ib" WILL HAVE AN OVERALL PROTECTION RATING OF "ib".
2. THE PERMISSIBLE INPUT VOLTAGE U_i , INPUT CURRENT i_i AND INPUT POWER P_i OF EACH APPARATUS SHALL BE GREATER THAN OR EQUAL TO THE OUTPUT VOLTAGE U_o , OUTPUT CURRENT i_o , AND OUTPUT POWER P_o OF THE ASSOCIATED APPARATUS (BARRIER).
3. INSTALLATION OF THE LCP100 IS SUCH THAT ITS LOOP TERMINALS WILL BE CONNECTED IN PARALLEL WITH OTHER INTRINSICALLY SAFE APPARATUS LOOP TERMINALS. THE WIRING COMING FROM THE BARRIER INTO THE HAZARDOUS LOCATION MAY BE TERMINATED AT EITHER THE INTRINSICALLY SAFE APPARATUS, AS SHOWN IN FIGURE 2 OR AT THE LCP100, AS SHOWN IN FIGURE 4.

GE75327-Sheet 1

Figure 4. Wiring Configuration from Barrier to Fisher LCP100 to DVC6200 SIS - Loop-Powered Only (Drawing GE75327) (See Notes in Figure 3)



GE75327-Sheet 2

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