

IECEx 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.

Ex ia IIB T4 Ga

Ex e mb [ib] IIC T4 Gb

Ex ic IIC T4 Gc

Ex tb IIIC T71°C Db

Ta = -40°C to +65°C

IP66

Ex ia IIB

Standards Used for Certification

IEC 60079-0:2011
IEC 60079-11:2011
IEC 60079-26:2014

Entity parameters

Refer to drawing GE75327, shown in figure 1, 2, and 3.

Special Conditions for Safe Use

1. The 24 VDC input terminals shall not be used.
2. Under certain extreme circumstances, the plastic enclosure may store an ignition-capable level electrostatic charge. Precautions shall be taken to prevent the build up of electrostatic charge by charge-generating mechanisms, e.g. do not rub with a solvent, as indicated on the product nameplate.

Ex ic IIC and Ex e mb [ib] IIC

Standards Used for Certification

IEC 60079-0:2011
IEC 60079-7:2006
IEC 60079-11:2011
IEC 60079-18:2014

Entity parameters

Ex ic IIC

$U_i = 27$ VDC
 $C_i = 1.1$ nF
 $L_i = 0$

Special Conditions for Safe Use

1. For Ex ic installations, it is not permitted to connect separate supplies to the LOOP+/LOOP- and AUX+/LOOP- terminals.
2. If the equipment is installed in a zone 2, the installer shall take suitable steps to indicate whether the equipment is installed as Ex e mb [ib] or Ex ic.

Ex tb IIIC

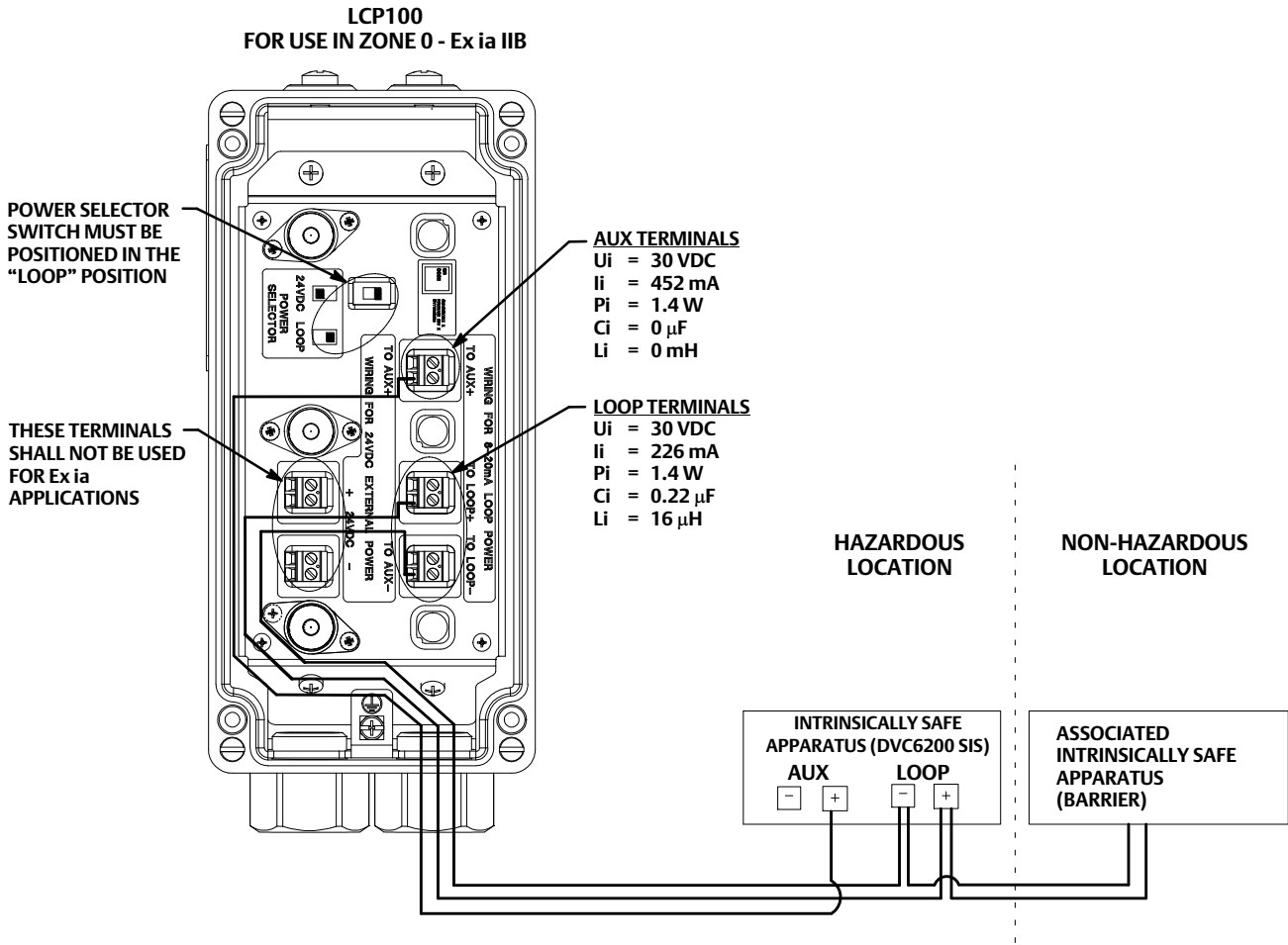
Standards Used for Certification

IEC 60079-0:2011
IEC 60079-31:2013

Special Conditions for Safe Use

1. 24 VDC+ /24 VDC- and LOOP+ /LOOP- terminals shall not be used simultaneously.
2. Under certain extreme circumstances, exposed plastic and unearthed metal parts of the enclosure may store an ignition-capable level of electrostatic charge. Therefore, the user/installer shall implement precautions to prevent the build up of electrostatic charge, e.g. locate the equipment where a charge-generating mechanism is unlikely to be present and clean with a damp cloth.

Figure 1. Wiring Configuration from Barrier to Fisher DVC6200 SIS to LCP100 - Loop-Powered Only (Drawing GE75327) (See Notes in Figure 2)



GE75327-Sheet 1

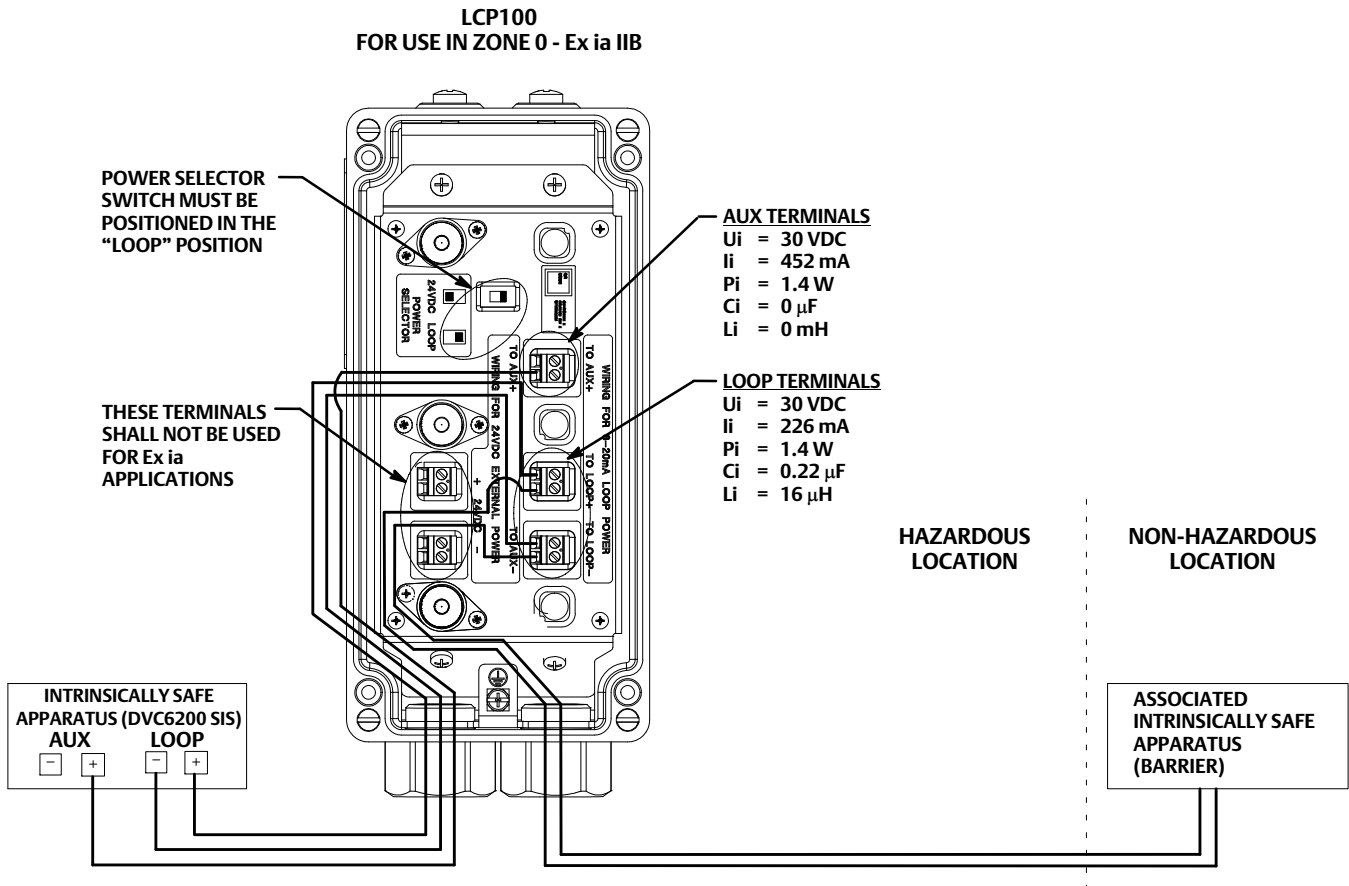
Figure 2. Schematic Notes for Figure 1 and Figure 3

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 1 OR AT THE LCP100, AS SHOWN IN FIGURE 3.

GE75327-Sheet 1

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



GE75327-Sheet 2

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