

CSA (United States and Canada) Hazardous Area Approvals

Fisher™ FIELDVUE™ DLC3100 Digital Level Controller

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 DLC3100 quick start guide ([D104214X012](#)), available from your [Emerson sales office](#), Local Business Partner, or at [www.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.

Approval Information

Class/Division

Class I, Division 2 Groups A, B, C, D

Class II, Division 2 Groups E, F, G

Explosion-proof: Class I, Division 1 Groups B, C, D

Temperature Code: T5 ($T_{amb} \leq 80^{\circ}\text{C}$); T6 ($T_{amb} \leq 70^{\circ}\text{C}$)

Class II Division 1 Groups E, F, G

Class III

Temperature Code: T5 ($T_{amb} \leq 80^{\circ}\text{C}$); T6 ($T_{amb} \leq 54^{\circ}\text{C}$)

Intrinsically Safe

Class I, Division 1 Groups A, B, C, D

Class II, Division 1 Groups E, F, G

Install per drawing GG52544 (see figure 1, 2, and 3)

Zone

Flameproof: AEx/Ex db IIB + H2 Gb

Type n: AEx/Ex nA IIC Gc

Dust by Enclosure: AEx/Ex tb IIIC Db

Temperature Code: T5 ($T_{amb} \leq 80^{\circ}\text{C}$); T6 ($T_{amb} \leq 70^{\circ}\text{C}$)

Intrinsically Safe

Gas: AEx/Ex ia IIC Ga

Dust: AEx/Ex ia IIIC Da

Install per drawing GG52544 (see figure 1, 2, and 3)

Special Conditions of Safe Use

Ambient temperature rating: $-40^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$; $-40^{\circ}\text{C} \leq T_a \leq +54^{\circ}\text{C}$; $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$

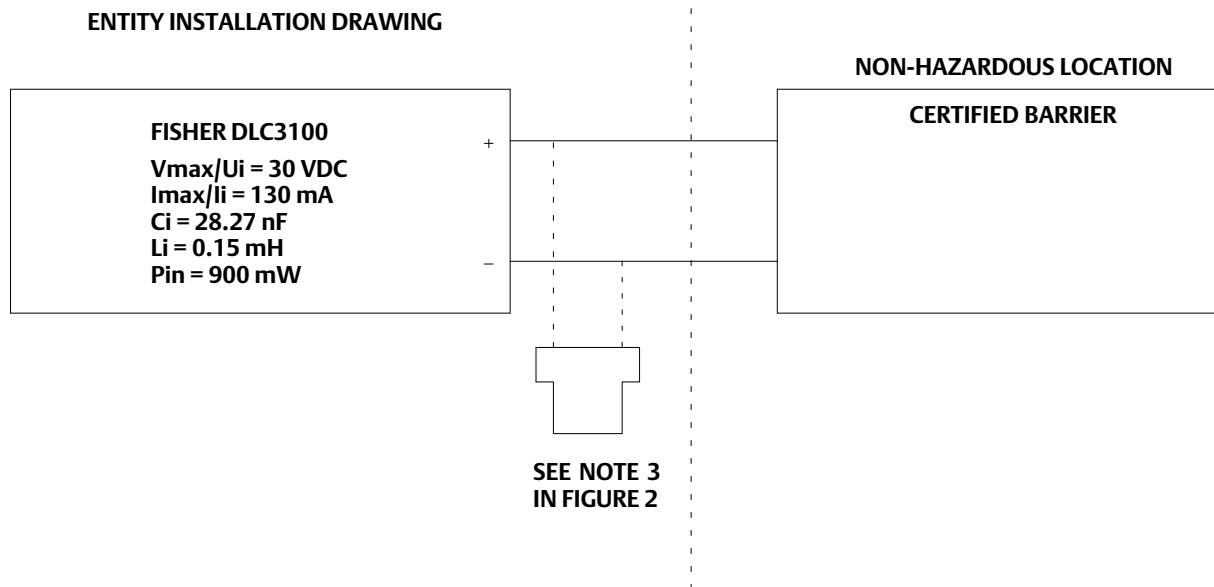
Cautions/Warnings:

1. Substitution of components may impair intrinsic safety and suitability for class I, division 2.
2. To prevent ignition of explosive atmospheres, disconnect power before servicing.
3. In Explosion-proof/flameproof applications a seal shall be installed within 0 mm of the enclosure.
4. Do not open when an explosive atmosphere may be present.
5. Equipment may not be installed in atmospheres with Ketones and Esters.

Précautions/Avertissements:

1. Le remplacement de composants peut dégrader la sécurité intrinsèque et sa compatibilité pour la classe I, division 2.
2. Pour empêcher l'inflammation d'atmosphères explosives déconnecter l'alimentation électrique avant toute intervention.
3. Pour les applications antidéflagrantes un joint doit être installé à 0mm du boîtier.
4. Ne pas ouvrir si l'atmosphère peut être explosive.
5. L'équipement ne peut pas être installé dans des atmosphères contenant des cétones et des esters.

Figure 1. CSA Installation Drawing GG52544, Sheet 1 of 2
See Notes in figure 2



HAZARDOUS LOCATIONS

CANADA:

- Class I, Div 1, Groups A, B, C, and D T5($T_{amb} \leq 80^\circ\text{C}$ / T6($T_{amb} \leq 54^\circ\text{C}$)
- Class II, Div 1, Groups E, F, G T5($T_{amb} \leq 80^\circ\text{C}$ / T6($T_{amb} \leq 54^\circ\text{C}$)
- Class III, (T5, $T_{amb} \leq 80^\circ\text{C}$ / T6($T_{amb} \leq 54^\circ\text{C}$)
- Ex ia IIC, (T5, $T_{amb} \leq 80^\circ\text{C}$ / T6($T_{amb} \leq 54^\circ\text{C}$) Ga
- Ex ia IIIC, T100($T_{amb} < 80^\circ\text{C}$), T85($T_{amb} < 54^\circ\text{C}$) Da

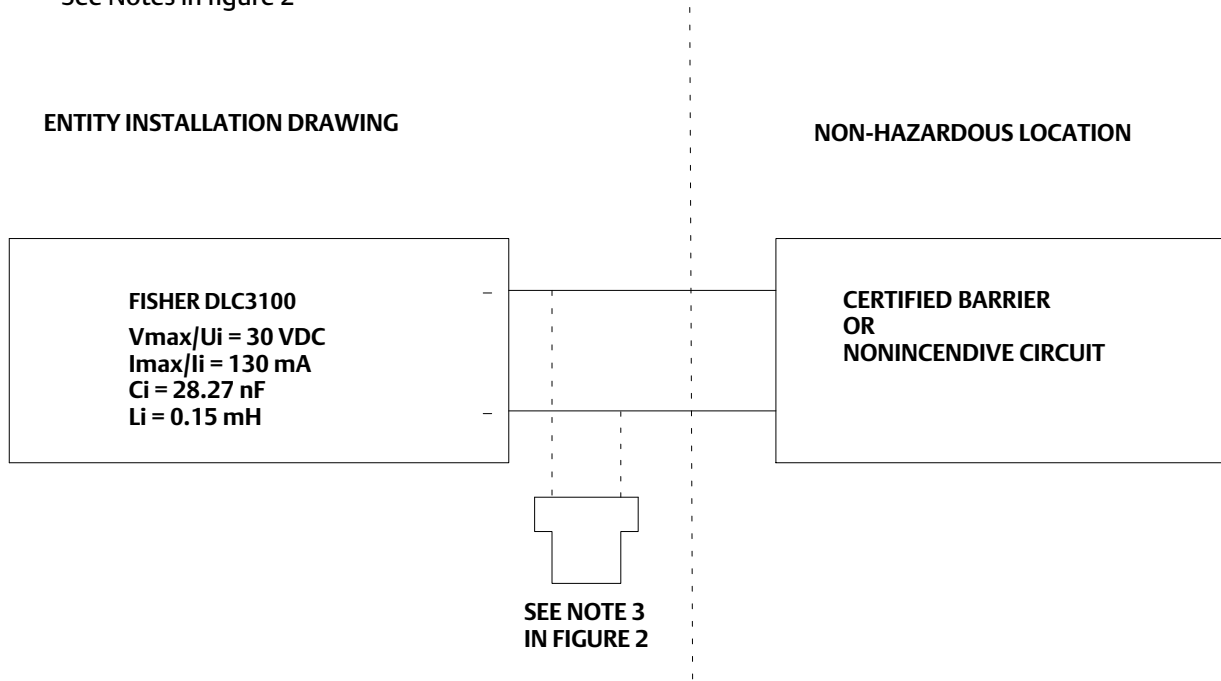
UNITED STATES:

- Class I, Div 1, Groups A, B, C, and D T5($T_{amb} \leq 80^\circ\text{C}$ / T6($T_{amb} \leq 54^\circ\text{C}$)
- Class II, Div 1 Groups E, F, G T5($T_{amb} \leq 80^\circ\text{C}$ / T6($T_{amb} \leq 54^\circ\text{C}$)
- Class III, (T5, $T_{amb} \leq 80^\circ\text{C}$ / T6($T_{amb} \leq 54^\circ\text{C}$)
- Class I, Zone 0, AEx ia IIC (T5, $T_{amb} \leq 80^\circ\text{C}$ / T6($T_{amb} \leq 54^\circ\text{C}$) Ga
- Class II, Zone 20, AEx ia IIIC, (T100, $T_{amb} \leq 80^\circ\text{C}$) / T85($T_{amb} \leq 54^\circ\text{C}$) Da

Figure 2. Notes for CSA Installation Drawing GG52544

1. BARRIERS MUST BE CERTIFIED WITH ENTITY PARAMETERS AND ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS I.S. INSTALLATION INSTRUCTIONS.
2. EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE CANADIAN ELECTRIC CODE, PART I OR NEC NFPA70 AND ANSI/ISA RP12.06.01.
3. IF HAND-HELD COMMUNICATOR OR MULTIPLEXER IS USED, IT MUST BE CERTIFIED AND INSTALLED PER THE MANUFACTURE'S CONTROL DRAWING.
4. FOR ENTITY INSTALLATION: $V_{max} > V_{oc}$, $I_{max} > I_{sc}$, $C_i + C_{cable} < C_a$, $L_i + L_{cable} < L_a$

Figure 3. CSA Installation Drawing GG52544, Sheet 2 of 2
See Notes in figure 2



HAZARDOUS LOCATION

- Class I, Div 2, Groups A, B, C, and D T5($T_{amb} \leq 80^\circ\text{C}$ / $T_6(T_{amb} \leq 69.8^\circ\text{C})$)
- Class II, Div 2, Groups E, F, G T5($T_{amb} \leq 80^\circ\text{C}$ / $T_6(T_{amb} \leq 69.8^\circ\text{C})$)
- Class III, (T5, $T_{amb} \leq 80^\circ\text{C}$) / $T_6(T_{amb} \leq 54^\circ\text{C})$
- Ex nA IIC, (T5, $T_{amb} \leq 80^\circ\text{C}$) / $T_6(T_{amb} \leq 69.8^\circ\text{C})$ Gc
- Class I, Zone 2, AEx nA IIC (T5, $T_{amb} \leq 80^\circ\text{C}$) / $T_6(T_{amb} \leq 69.8^\circ\text{C})$ Gc

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