

NEPSI Hazardous Area Approvals for Fisher™ FIELDVUE™ DLC3020f Digital Level Controller

This supplement provides NESPI Hazardous Area Approval information for the DLC3020f digital level controller.

NEPSI—National Supervision and Inspection Centre for Explosion Protection and Safety of Instrumentation. NEPSI approval is accepted in China.

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

Refer to the DLC3020f quick start guide, [D103470X012](#) or instruction manual, [D103434X012](#) for all other information regarding the DLC3020f digital level controller. If additional information regarding these products is required, please contact your [Emerson sales office](#).

Note

This information supplements the nameplate markings affixed to the product.

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, and area re-classification.

Intrinsically Safe

Certificate Number GYJ20.1041X

Ex ia IIC T5/T6 Ga

Ex iaD 20 T87/T80

Conforms to:

GB 3836.1-2010 Explosive atmospheres - Part 1: Equipment - General requirements

GB 3836.4-2010 Explosive atmospheres - Part 4: Equipment protection by intrinsic safety “i”

GB 3836.20-2010 Explosive atmospheres - Part 20: Equipment with equipment protection level (EPL) Ga

GB 12476.1-2013 Electrical apparatus for use in the presence of combustible dust - Part 1: General requirements

GB 12476.4-2010 Electrical apparatus for use in the presence of combustible dust - Part 4: Protection by intrinsic safety “iD”

Special Conditions for Safe Use

The suffix “X” placed after the certificate number indicates that this product is subject to special conditions for safe use, that is:

For EPL Ga applications, at the metallic parts of the products made of light metal there is a danger of ignition by impact or friction.

Conditions for Safe Use

1. The external earth connection facility shall be connected reliably.
2. This product should be used in explosive gas atmospheres/combustible dust atmospheres together with approved associated apparatus, follow the instruction manual of this product and associated apparatus when connecting the wiring. Connect the wiring terminals correctly.
3. The intrinsically safe parameters are shown as follows:

Ui (V)	Ii (mA)	Pi (W)	Ci (nF)	Li (mH)
24	380	1.4	5	0
17.5*	380*	5.32*	5*	0*

Note: * Meet the requirements of a FISCO device.

4. Connecting cable between this product and associated apparatus should be insulated screen cable; connect the cable screen functionally to earth ground.
5. Clean the surface of this product whenever used in combustible dust atmosphere.
6. After installation, degree of protection of enclosure is at least IP66 according to GB4208-2008.
7. The user shall not change the configuration in order to maintain/ensure the explosion protection performance of the equipment. Any change may impair safety.
8. For installation, use and maintenance of this product, the end user shall observe the instruction manual and the following standards:
 GB50257-2014 “Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering”.
 GB3836.13-2013 “Explosive atmospheres- Part 13: Equipment repair, overhaul and reclamation”.
 GB3836.15-2017 “Electrical apparatus for explosive gas atmospheres- Part 15: Electrical installations in hazardous area (other than mines)”.
 GB3836.16-2017 “Electrical apparatus for explosive gas atmospheres- Part 16: Inspection and maintenance of electrical installation (other than mines)”.
 GB3836.18-2017 “Explosive atmospheres-Part 18: Intrinsically safe system”.
 GB15577-2018 “Safety regulations for dust explosion prevention and protection”. (Only if installed in dust hazardous areas).

Flameproof

Certificate Number GYJ20.1039X

Ex d IIC T5/T6 Gb;

Ex tD A21 IP66 T87°C/ T80°C

Conforms to:

GB 3836.1-2010 Explosive atmospheres - Part 1: Equipment - General requirements

GB 3836.4-2010 Explosive atmospheres - Part 4: Equipment protection by intrinsic safety “i”

GB 12476.1-2013 Electrical apparatus for use in the presence of combustible dust - Part 1: General requirements

GB 12476.5-2010 Electrical apparatus for use in the presence of combustible dust - Part 5: Protection by enclosures “tD”

Special Conditions for Safe Use

The suffix “X” placed after the certificate number indicates that this product is subject to special conditions for safe use, that is:

For information on the dimensions of the flameproof joints contact the manufacturer.

Conditions for Safe Use

1. The external earth connection facility should be connected reliably.
2. Electrical data: 32V max.
3. As the flameproof product, suitable certified cable glands or blanking plugs for unused holes approved by ExTL according to GB3836.1-2010 and GB3836.2-2010 with Ex marking “Ex d IIC Gb” shall be used and correctly installed; as the dust product, suitable certified cable glands or blanking plugs for unused holes approved by ExTL according to GB12476.1-2013 and GB12476.5-2013 with Ex marking “Ex tD A21 IP66” shall be used and correctly installed, after installation, degree of protection of enclosure is at least IP66 according to GB4208-2008.
4. Any maintenance shall be performed only when the warning of “Do not open when energized” is observed.
5. Clean the surface of this product whenever used in combustible dust atmosphere.
6. Use the connection cable which is at least endurance to 87°C when wiring.
7. The user shall not change the configuration in order to maintain/ensure the explosion protection performance of this product. Any change may impair safety.
8. For installation, use and maintenance of this product, the end user should observe the instruction manual and the following standards:
 - GB50257-2014 “Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering”.
 - GB3836.13-2013 “Explosive atmospheres- Part 13: Equipment repair, overhaul and reclamation”.
 - GB3836.15-2017 “Electrical apparatus for explosive gas atmospheres- Part 15: Electrical installations in hazardous area (other than mines)”.
 - GB3836.16-2017 “Electrical apparatus for explosive gas atmospheres- Part 16: Inspection and maintenance of electrical installation (other than mines)”.
 - GB15577-2018 “Safety regulations for dust explosion prevention and protection”. (Only if installed in dust hazardous areas)

Type n

Certificate Number GYJ20.1040

Ex nA IIC T5/T6 Gc;

Ex tD A21 IP66 T87°C/ T80°C

Conforms to:

GB 3836.1-2010 Explosive atmospheres - Part 1: Equipment - General requirements

GB 3836.8-2014 Explosive atmospheres - Part 8: Equipment protection by type of protection “n”

GB 12476.1-2013 Electrical apparatus for use in the presence of combustible dust - Part 1: General requirements

GB 12476.5-2013 Electrical apparatus for use in the presence of combustible dust - Part 5: Protection by enclosures “tD”

Conditions for Safe Use

1. The external earth connection facility should be connected reliably.
2. Electrical data: 32V max.
3. As “nA” product, suitable certified cable glands or blanking plugs for unused holes approved by ExTL according to GB3836 shall be used and correctly installed; as the dust product, suitable certified cable glands or blanking plugs for unused holes approved by ExTL according to GB12476.1-2013 and GB12476.5-2013 with Ex marking “Ex tD A21 IP66” shall be used and correctly installed, after installation, degree of protection of enclosure is at least IP66 according to GB4208-2008.
4. Any maintenance shall be performed only when the warning of “Do not open when energized” is observed.
5. Clean the surface of this product whenever used in combustible dust atmosphere.

6. Use the connection cable which is at least endurance to 87°C when wiring.
7. The user shall not change the configuration in order to maintain/ensure the explosion protection performance of this product. Any change may impair safety.
8. For installation, use and maintenance of this product, the end user should observe the instruction manual and the following standards:
 - GB50257-2014 “Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering”.
 - GB3836.13-2013 “Explosive atmospheres- Part 13: Equipment repair, overhaul and reclamation”.
 - GB3836.15-2017 “Electrical apparatus for explosive gas atmospheres- Part 15: Electrical installations in hazardous area (other than mines)”.
 - GB3836.16-2017 “Electrical apparatus for explosive gas atmospheres- Part 16: Inspection and maintenance of electrical installation (other than mines)”.
 - GB15577-2018 “Safety regulations for dust explosion prevention and protection”. (Only if installed in dust hazardous areas)

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