



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEX FMG 19.0047X** Page 1 of 4 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-08-04

Applicant: **Magnetrol International Inc**  
705 Enterprise Street  
Aurora, IL 60504  
**United States of America**

Equipment: **Thermatel TD1, TD2 Thermal Dispersion Switch and Thermal Probe**

Optional accessory:

Type of Protection: **Ex db, ib**

Marking: Refer to Annex labeled **Marking**.

Approved for issue on behalf of the IECEx  
Certification Body:

**J. E. Marquedant**

Position:

**VP, Manager - Electrical Systems**

Signature:  
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**FM Approvals LLC**  
1151 Boston-Providence Turnpike  
Norwood, MA 02062  
United States of America





# IECEX Certificate of Conformity

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Date of issue: 2020-08-04

Issue No: 0

Manufacturer: **Magnetrol International Inc**  
705 Enterprise Street  
Aurora, IL 60504  
**United States of America**

Additional  
manufacturing  
locations: **Magnetrol N.V.**  
Heikenstraat 6  
9240 Zele  
**Belgium**

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

#### STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

**IEC 60079-0:2017** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

**IEC 60079-1:2014-06** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

**IEC 60079-11:2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

**IEC 60079-26:2014-10** Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga  
Edition:3.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

#### TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[US/FMG/ExTR19.0046/00](#)

Quality Assessment Reports:

[CA/CSA/QAR06.0004/12](#)

[NL/DEK/QAR11.0031/06](#)



# IECEx Certificate of Conformity

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Date of issue: 2020-08-04

Issue No: 0

**EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

Refer to Annex labeled **Equipment**.

**SPECIFIC CONDITIONS OF USE: YES as shown below:**

Refer to Annex labeled **Specific Conditions of Use**.



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Certificate No.: **IECEX FMG 19.0047X**

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Date of issue: 2020-08-04

Issue No: 0

**Equipment (continued):**

Thermatel Model TD1 / TD2 Thermal Dispersion Level / Flow Switch

**Annex:**

[Annex-to-IECEX FMG 19.0047X.00\\_1.pdf](#)

**Marking:**

**TD1-2D00-0Cb. Interl Thermal Dispersion Switch with Tjk-mnpr-stu. Thermal Probe**  
**TD2-cd0e-fCh. Interl Thermal Dispersion Switch with Tjk-mnpr-stu. Thermal Probe**  
Ex db + ib / db IIC T5 ...T4 Ga/Gb Ta = -40°C to +70°C, IP66

**TD2-cd0e-fCh. Thermal Dispersion Switch**  
Ex db [ib] IIC T4 Gb Ta = -40°C to +70°C, IP66

**TD1-2D00-0Gb. Interl Thermal Dispersion Switch with Tjk-Dnpr-stu. Thermal Probe.**  
**TD2-ch0e-fGh. Interl Thermal Dispersion Switch with Tjk-Dnpr-stu. Thermal Probe**  
Ex db IIC T5 ...T4 Ga/Gb Ta = -40°C to +70°C, IP66

**TD1-2D00-0Gb. Interl Thermal Dispersion Switch with Tjk-mnpr-stu. Thermal Probe.**  
**TD2-cd0e-fGh. Interl Thermal Dispersion Switch with Tjk-mnpr-stu. Thermal Probe**  
Ex db IIC T5 ...T4 Gb Ta = -40°C to +70°C, IP66

**Tjk-mnpr-stu. Thermal Probe**  
Ex db + ib IIC T5...T4 Ga/Gb Ta = -40°C to +70°C, IP66  
Ex db IIC T5 ...T4 Gb Ta = -40°C to +70°C, IP66

**Tjk-Dnpr-stu. Thermal Probe**  
Ex db IIC T5 ...T4 Ga/Gb Ta = -40°C to +70°C, IP66  
Ex db IIC T5 ...T4 Gb Ta = -40°C to +70°C, IP66

**Equipment:**

**Equipment and systems covered by this Certificate are as follows:**

***TD1-2D00-0Cb. Interl Thermal Dispersion Switch with Tjk-mnpr-stu. Thermal Probe***

b = Enclosure type/connection 0 or 1,  
j = Measurement system E or M.  
k = Sensor tip style A, B, C, D, H, L or M.  
m = Material A, D, K, M, N, B, F, C or G.  
n = Process connector size 0, 1, 2, 3, 4, B, C, D, T or V.  
p = Process connection type 0, 1, 2, 3, 4, 5, 7, 8, A, B, C, D, E, G, J, N, P, S, T or V.  
r = Sensitivity 0 or 1.  
stu = Probe Length (3 digits) up to 130 inch or 330 cm.

***TD2-cd0e-fCh. Interl Thermal Dispersion Switch with Tjk-mnpr-stu. Thermal Probe***

c = Power 7 or 8.  
d = Relay Output D or H.  
e = Enclosure Cover 0 or 1.  
f = Location 0 or 1.  
h = Enclosure type/connection 0, 1, 2, 3.  
j = Measurement system E or M.  
k = Sensor tip style A, B, C, D, H, L or M.  
m = Material A, D, K, M, N, B, F, C or G.  
n = Process connector size 0, 1, 2, 3, 4, B, C, D, T or V.  
p = Process connection type 0, 1, 2, 3, 4, 5, 7, 8, A, B, C, D, E, G, J, N, P, S, T or V.  
r = Sensitivity 0 or 1.  
stu = Probe Length (3 digits) up to 130 inch or 330 cm.

***TD2-cd0e-fCh. Thermal Dispersion Switch***

**Annex to IECEx FMG 19.0047X**

c = Power 7 or 8.  
d = Relay Output D or H.  
e = Enclosure Cover 0 or 1.  
f = Location 0 or 1.  
h = Enclosure type/connection 0, 1, 2, 3.

***TD1-2D00-0Gb. Internal Thermal Dispersion Switch with Tjk-Dnpr-stu. Thermal Probe***

b = Enclosure type/connection 0 or 1  
j = Measurement system E or M.  
k = Sensor tip style C or D.  
n = Process connector size 0, 1, 2, 3, 4, B, C, D, T or V.  
p = Process connection type 0, 1, 2, 3, 4, 5, 7, 8, A, B, C, D, E, G, J, N, P, S, T or V.  
r = Sensitivity 0 or 1.  
stu = Probe Length (3 digits) up to 130 inch or 330 cm.

***TD2-cH0e-fGh. Internal Thermal Dispersion Switch with Tjk-Dnpr-stu. Thermal Probe***

c = Power 7 or 8.  
e = Enclosure Cover 0 or 1.  
f = Location 0 or 1.  
h = Enclosure type/connection 0, 1, 2, 3  
j = Measurement system E or M.  
k = Sensor tip style C or D.  
n = Process connector size 0, 1, 2, 3, 4, B, C, D, T or V.  
p = Process connection type 0, 1, 2, 3, 4, 5, 7, 8, A, B, C, D, E, G, J, N, P, S, T or V.  
r = Sensitivity 0 or 1.  
stu = Probe Length (3 digits) up to 130 inch or 330 cm.

***TD1-2D00-0Gb. Internal Thermal Dispersion Switch with Tjk-mnpr-stu. Thermal Probe***

b = Enclosure type/connection 0 or 1  
j = Measurement system E or M.  
k = Sensor tip style A, B, C, D, H, L or M.  
m = Material A, D, K, M, N, B, F, C or G.  
n = Process connector size 0, 1, 2, 3, 4, B, C, D, T or V.  
p = Process connection type 0, 1, 2, 3, 4, 5, 7, 8, A, B, C, D, E, G, J, N, P, S, T or V.  
r = Sensitivity 0 or 1.  
stu = Probe Length (3 digits) up to 130 inch or 330 cm.

***TD2-cd0e-fGh. Internal Thermal Dispersion Switch with Tjk-mnpr-stu. Thermal Probe***

c = Power 7 or 8.  
d = Relay Output D or H.  
e = Enclosure Cover 0 or 1.  
f = Location 0 or 1.  
h = Enclosure type/connection 0, 1, 2, 3.  
j = Measurement system E or M.  
k = Sensor tip style A, B, C, D, H, L or M.  
m = Material A, D, K, M, N, B, F, C or G.  
n = Process connector size 0, 1, 2, 3, 4, B, C, D, T or V.  
p = Process connection type 0, 1, 2, 3, 4, 5, 7, 8, A, B, C, D, E, G, J, N, P, S, T or V.  
r = Sensitivity 0 or 1.  
stu = Probe Length (3 digits) up to 130 inch or 330 cm.

***Tjk-mnpr-stu. Thermal Probe***

j = Measurement system E or M.  
k = Sensor tip style A, B, C, D, H, L or M.  
m = Material A, D, K, M, N, B, F, C or G.  
n = Process connector size 0, 1, 2, 3, 4, B, C, D, T or V.

p = Process connection type 0, 1, 2, 3, 4, 5, 7, 8, A, B, C, D, E, G, J, N, P, S, T or V.  
r = Sensitivity 0 or 1.  
stu = Probe Length (3 digits) up to 130 inch or 330 cm.

***Tjk-Dnpr-stu. Thermal Probe***

j = Measurement system E or M.  
k = Sensor tip style A, B, C, D, H, L or M.  
n = Process connector size 0, 1, 2, 3, 4, B, C, D, T or V.  
p = Process connection type 0, 1, 2, 3, 4, 5, 7, 8, A, B, C, D, E, G, J, N, P, S, T or V.  
r = Sensitivity 0 or 1.  
stu = Probe Length (3 digits) up to 130 inch or 330 cm.

**Specific Conditions of Use:**

**TD1-2D00-0Cb. Interl Thermal Dispersion Switch with Tjk-mnpr-stu. Thermal Probe.**  
**TD2-cd0e-fCh. Interl Thermal Dispersion Switch with Tjk-mnpr-stu. Thermal Probe.**  
**TD2-cd0e-fCh. Thermal Dispersion Switch.**  
**TD1-2D00-0Gb. Interl Thermal Dispersion Switch with Tjk-Dnpr-stu. Thermal Probe.**  
**TD2-cH0e-fGh. Interl Thermal Dispersion Switch with Tjk-Dnpr-stu. Thermal Probe.**  
**TD1-2D00-0Gb. Interl Thermal Dispersion Switch with Tjk-mnpr-stu. Thermal Probe.**  
**TD2-cd0e-fGh. Interl Thermal Dispersion Switch with Tjk-mnpr-stu. Thermal Probe.**

1. The enclosure contains aluminum and is considered to present a potential risk of ignition by impact or friction. Care must be taken during installation and use to prevent impact or friction.
2. To maintain the T5 to T4 temperature code care shall be taken to ensure the "Enclosure Temperature" does not exceed 70°C
3. The risk of electrostatic discharge shall be minimized at installation, following the direction given in the instructions.
4. Contact the original manufacturer for information in the dimensions of flameproof joints.
5. For Installation with ambient temperature of 70°C, refer to the manufacturer's instructions for guidance on proper selection of conductors.

***Tjk-mnpr-stu. Thermal Probe.***  
***Tjk-Dnpr-stu. Thermal Probe***

1. The Thermal Probe is only for use with the TD1 and TD2 Thermal Dispersion Switch.
2. To maintain the T5 to T4 temperature code care shall be taken to ensure the "Enclosure Temperature" does not exceed 70°C
3. The risk of electrostatic discharge shall be minimized at installation, following the direction given in the instructions.
4. Contact the original manufacturer for information in the dimensions of flameproof joints.