



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

Certificate No.: **IECEx FMG 18.0005X** Page 1 of 4 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2018-10-04

Applicant: **Bühler Technologies GmbH**
Harkortstrasse 29
Ratingen, D-40880
Germany

Equipment: **TC-6 Thermoelectric Cooler**

Optional accessory:

Type of Protection: **Increased Safety e, Enclosed Break nC**

Marking: **IECEx FMG 18.0005X Ex ec nC IIC T4 Gc**
Ta

Approved for issue on behalf of the IECEx
Certification Body:

J. E. Marquedant

Position:

VP, Manager - Electrical Systems

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

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





IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 2 of 4

Date of issue: 2018-10-04

Issue No: 0

Manufacturer: **Bühler Technologies GmbH**
Harkortstrasse 29
Ratingen, D-40880
Germany

Manufacturing
locations:

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 60079-0:2011](#) Explosive atmospheres - Part 0: General requirements
Edition:6.0

[IEC 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

[IEC 60079-7:2015](#) Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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/ExTR18.0005/00](#)

Quality Assessment Report:

[DE/BVS/QAR16.0002/02](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 3 of 4

Date of issue: 2018-10-04

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

TC-Standard (+) (X2)

4496 21 abcdefghijklmno

a = Quantity of heat exchangers; 1 or 2

b = Operating temperature; 40°C or 50°C

c = application area

d = voltage; 3

e, f, g = Type of heat exchangers

h, i = Type and connection of peristaltic pumps

j, k = Type of humidity sensor and filter

l, m = Status output

n, o = Delta temperature; yes or no

TC-MIDI (+) (X2)

4496 31 abcdefghijklmno

a = Quantity of heat exchangers; 1 or 2

b = Operating temperature; 40°C or 60°C

c = Application area

d = Voltage; 2

e, f, g = Type of heat exchangers

h = Type peristaltic pumps

i = Type of gas pumps

j, k = Type of humidity sensor and filter

l, m = Status output

n, o = Delta temperature; yes or no

TC-Double (+) (X2)

4496 611 abcdefghijklmn

a = Operating temperature; 40°C or 60°C; pre-cooling yes or no

b = Application area

c = Voltage; 2

d, e, f = Type of heat exchangers

g = Type of peristaltic pumps

h = Type of gas pumps

i, j = Type of humidity sensor and filter



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 4 of 4

Date of issue: 2018-10-04

Issue No: 0

k, l = status output

m, n = blank

SPECIFIC CONDITIONS OF USE: YES as shown below:

When installed as Zone 2 equipment, the thermoelectric cooler must be mounted within a tool-secured IP54 enclosure.



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

Certificate No.:	IECEx FMG 18.0005X	Page 1 of 5	<u>Certificate history:</u>
Status:	Current	Issue No: 1	Issue 0 (2018-10-04)
Date of Issue:	2020-02-17		
Applicant:	Bühler Technologies GmbH Harkortstrasse 29 Ratingen, D-40880 Germany		
Equipment:	TC-6 Thermoelectric Cooler		
Optional accessory:			
Type of Protection:	Increased Safety e, Enclosed Break nC		
Marking:	IECEx FMG 18.0005X Ex ec nC IIC T4 Gc Ta		

Approved for issue on behalf of the IECEx
Certification Body:

J. E. Marquedant

Position:

VP, Manager - Electrical Systems

Signature:
(for printed version)

Date:
(for printed version)

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United States of America





IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 2 of 5

Date of issue: 2020-02-17

Issue No: 1

Manufacturer: **Bühler Technologies GmbH**
Harkortstrasse 29
Ratingen, D-40880
Germany

Manufacturing
locations:

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 60079-0:2011](#) Explosive atmospheres - Part 0: General requirements
Edition:6.0

[IEC 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

[IEC 60079-7:2015](#) Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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 Reports:

[US/FMG/ExTR18.0005/00](#)

[US/FMG/ExTR18.0005/01](#)

Quality Assessment Report:

[DE/BVS/QAR16.0002/02](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 3 of 5

Date of issue: 2020-02-17

Issue No: 1

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

TC-Standard (+) (X2)

4496 21 abcdefghijklmno

a = Quantity of heat exchangers; 1 or 2

b = Operating temperature; 40°C or 50°C

c = application area

d = voltage; 3

e, f, g = Type of heat exchangers

h, i = Type and connection of peristaltic pumps

j, k = Type of humidity sensor and filter

l, m = Status output

n, o = Delta temperature; yes or no

TC-MIDI (+) (X2)

4496 31 abcdefghijklmno

a = Quantity of heat exchangers; 1 or 2

b = Operating temperature; 40°C or 60°C

c = Application area

d = Voltage; 2

e, f, g = Type of heat exchangers

h = Type peristaltic pumps

i = Type of gas pumps

j, k = Type of humidity sensor and filter

l, m = Status output

n, o = Delta temperature; yes or no

TC-Double (+) (X2)

4496 611 abcdefghijklmn

a = Operating temperature; 40°C or 60°C; pre-cooling yes or no

b = Application area

c = Voltage; 2

d, e, f = Type of heat exchangers

g = Type of peristaltic pumps

h = Type of gas pumps

i, j = Type of humidity sensor and filter



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 4 of 5

Date of issue: 2020-02-17

Issue No: 1

k, l = status output

m, n = blank

SPECIFIC CONDITIONS OF USE: YES as shown below:

When installed as Zone 2 equipment, the thermoelectric cooler must be mounted within a tool-secured IP54 enclosure.



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 5 of 5

Date of issue: 2020-02-17

Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Update of documents, not related to the safety or requirement of the IECEx approval.



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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Certificate No.:	IECEx FMG 18.0005X	Page 1 of 5	<u>Certificate history:</u>
Status:	Current	Issue No: 2	Issue 1 (2020-02-17) Issue 0 (2018-10-04)
Date of Issue:	2021-01-25		
Applicant:	Bühler Technologies GmbH Harkortstrasse 29 Ratingen, D-40880 Germany		
Equipment:	TC-6 Thermoelectric Cooler		
Optional accessory:			
Type of Protection:	Increased Safety e, Enclosed Break nC		
Marking:	IECEx FMG 18.0005X Ex ec nC IIC T4 Gc Ta		

Approved for issue on behalf of the IECEx
Certification Body:

J. E. Marquedant

Position:

VP, Manager - Electrical Systems

Signature:
(for printed version)

Date:
(for printed version)

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IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 2 of 5

Date of issue: 2021-01-25

Issue No: 2

Manufacturer: **Bühler Technologies GmbH**
Harkortstrasse 29
Ratingen, D-40880
Germany

Manufacturing
locations:

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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 60079-0:2011](#) Explosive atmospheres - Part 0: General requirements
Edition:6.0

[IEC 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

[IEC 60079-7:2015](#) Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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 Reports:

[US/FMG/ExTR18.0005/00](#)

[US/FMG/ExTR18.0005/01](#)

[US/FMG/ExTR18.0005/02](#)

Quality Assessment Report:

[DE/BVS/QAR16.0002/02](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 3 of 5

Date of issue: 2021-01-25

Issue No: 2

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

TC-Standard (+) (X2)

4496 21 abcdefghijklmno

a = Quantity of heat exchangers; 1 or 2

b = Operating temperature; 40°C or 50°C

c = application area

d = voltage; 3

e, f, g = Type of heat exchangers

h, i = Type and connection of peristaltic pumps

j, k = Type of humidity sensor and filter

l, m = Status output

n, o = Delta temperature; yes or no

TC-MIDI (+) (X2)

4496 31 abcdefghijklmno

a = Quantity of heat exchangers; 1 or 2

b = Operating temperature; 40°C or 60°C

c = Application area

d = Voltage; 2

e, f, g = Type of heat exchangers

h = Type peristaltic pumps

i = Type of gas pumps

j, k = Type of humidity sensor and filter

l, m = Status output

n, o = Delta temperature; yes or no

TC-Double (+) (X2)

4496 611 abcdefghijklmn

a = Operating temperature; 40°C or 60°C; pre-cooling yes or no

b = Application area

c = Voltage; 2

d, e, f = Type of heat exchangers

g = Type of peristaltic pumps

h = Type of gas pumps

i, j = Type of humidity sensor and filter



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 4 of 5

Date of issue: 2021-01-25

Issue No: 2

k, l = status output

m, n = blank

SPECIFIC CONDITIONS OF USE: YES as shown below:

When installed as Zone 2 equipment, the thermoelectric cooler must be mounted within a tool-secured IP54 enclosure.



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 5 of 5

Date of issue: 2021-01-25

Issue No: 2

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Update of documents, introducing of a digital interface which does not affect the safety or requirements of the IECEx approval.



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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Certificate No.: **IECEx FMG 18.0005X**

Page 1 of 5

Certificate history:

Status: **Current**

Issue No: 3

[Issue 2 \(2021-01-25\)](#)

[Issue 1 \(2020-02-17\)](#)

[Issue 0 \(2018-10-04\)](#)

Date of Issue: 2022-01-27

Applicant: **Bühler Technologies GmbH**
Harkortstrasse 29
Ratingen, D-40880
Germany

Equipment: **TC-6 Thermoelectric Cooler**

Optional accessory:

Type of Protection: **Increased Safety e, Enclosed Break nC**

Marking: IECEx FMG 18.0005X Ex ec nC IIC T4 Gc
Ta

Approved for issue on behalf of the IECEx
Certification Body:

J. E. Marquedant

Position:

VP, Manager - Electrical Systems

Signature:
(for printed version)

Date:
(for printed version)

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Norwood, MA 02062
United States of America





IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 2 of 5

Date of issue: 2022-01-27

Issue No: 3

Manufacturer: **Bühler Technologies GmbH**
Harkortstrasse 29
Ratingen, D-40880
Germany

Manufacturing
locations:

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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 60079-0:2011](#) Explosive atmospheres - Part 0: General requirements
Edition:6.0

[IEC 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

[IEC 60079-7:2015](#) Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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 Reports:

[US/FMG/ExTR18.0005/00](#)
[US/FMG/ExTR18.0005/03](#)

[US/FMG/ExTR18.0005/01](#)

[US/FMG/ExTR18.0005/02](#)

Quality Assessment Report:

[DE/BVS/QAR16.0002/05](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 3 of 5

Date of issue: 2022-01-27

Issue No: 3

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

TC-Standard (+) (X2)

4496 21 abcdefghijklmno

a = Quantity of heat exchangers; 1 or 2

b = Operating temperature; 40°C or 50°C

c = application area

d = voltage; 3

e, f, g = Type of heat exchangers

h, i = Type and connection of peristaltic pumps

j, k = Type of humidity sensor and filter

l, m = Status output

n, o = Delta temperature; yes or no

TC-MIDI (+) (X2)

4496 31 abcdefghijklmno

a = Quantity of heat exchangers; 1 or 2

b = Operating temperature; 40°C or 60°C

c = Application area

d = Voltage; 2

e, f, g = Type of heat exchangers

h = Type peristaltic pumps

i = Type of gas pumps

j, k = Type of humidity sensor and filter

l, m = Status output

n, o = Delta temperature; yes or no

TC-Double (+) (X2)

4496 611 abcdefghijklmn

a = Operating temperature; 40°C or 60°C; pre-cooling yes or no

b = Application area

c = Voltage; 2

d, e, f = Type of heat exchangers

g = Type of peristaltic pumps

h = Type of gas pumps

i, j = Type of humidity sensor and filter



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 4 of 5

Date of issue: 2022-01-27

Issue No: 3

k, l = status output

m, n = blank

SPECIFIC CONDITIONS OF USE: YES as shown below:

When installed as Zone 2 equipment, the thermoelectric cooler must be mounted within a tool-secured IP54 enclosure.



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 5 of 5

Date of issue: 2022-01-27

Issue No: 3

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Document update



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

Certificate No.: **IECEx FMG 18.0005X**

Page 1 of 5

Certificate history:

Status: **Current**

Issue No: 4

[Issue 3 \(2022-01-27\)](#)

[Issue 2 \(2021-01-25\)](#)

[Issue 1 \(2020-02-17\)](#)

[Issue 0 \(2018-10-04\)](#)

Date of Issue: 2024-10-09

Applicant: **Bühler Technologies GmbH**
Harkortstrasse 29
Ratingen, D-40880
Germany

Equipment: **TC-6 Thermoelectric Cooler**

Optional accessory:

Type of Protection: **Increased Safety e, Enclosed Break nC**

Marking: **Ex ec nC IIC T4 Gc**

Ta = 0°C to +40°C or 0°C to +50°C (TC-Standard X2 & TC-Standard+ X2 Models)

Ta = 0°C to +40°C or 0°C to +60°C (TC-MIDI X2 & TC-MIDI+ X2 and TC-Double X2 & TC-Double+ X2 Models)

Approved for issue on behalf of the IECEx
Certification Body:

J. E. Marquedant

Position:

VP, Manager - Electrical Systems

Signature:
(for printed version)

Date:
(for printed version)

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FM Approvals LLC
One Technology Way
Norwood MA 02062
United States of America





IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 2 of 5

Date of issue: 2024-10-09

Issue No: 4

Manufacturer: **Bühler Technologies GmbH**
Harkortstrasse 29
Ratingen, D-40880
Germany

Manufacturing
locations:

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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 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

[IEC 60079-7:2015](#) Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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 Reports:

[US/FMG/ExTR18.0005/00](#)
[US/FMG/ExTR18.0005/03](#)

[US/FMG/ExTR18.0005/01](#)
[US/FMG/ExTR18.0005/04](#)

[US/FMG/ExTR18.0005/02](#)

Quality Assessment Report:

[DE/BVS/QAR16.0002/06](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 3 of 5

Date of issue: 2024-10-09

Issue No: 4

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

TC-Standard (+) (X2)

4496 21 abcdefghijklmno

a = Quantity of heat exchangers; 1 or 2

b = Operating temperature; 40°C or 50°C

c = application area

d = voltage; 3

e, f, g = Type of heat exchangers

h, i = Type and connection of peristaltic pumps

j, k = Type of humidity sensor and filter

l, m = Status output

n, o = Delta temperature; yes or no

TC-MIDI (+) (X2)

4496 31 abcdefghijklmno

a = Quantity of heat exchangers; 1 or 2

b = Operating temperature; 40°C or 60°C

c = Application area

d = Voltage; 2

e, f, g = Type of heat exchangers

h = Type peristaltic pumps

i = Type of gas pumps

j, k = Type of humidity sensor and filter

l, m = Status output

n, o = Delta temperature; yes or no

TC-Double (+) (X2)

4496 611 abcdefghijklmn

a = Operating temperature; 40°C or 60°C; pre-cooling yes or no

b = Application area

c = Voltage; 2

d, e, f = Type of heat exchangers

g = Type of peristaltic pumps

h = Type of gas pumps

i, j = Type of humidity sensor and filter



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 4 of 5

Date of issue: 2024-10-09

Issue No: 4

k, l = status output

m, n = blank

SPECIFIC CONDITIONS OF USE: YES as shown below:

The equipment shall be installed within a tool-secured enclosure providing a minimum degree of protection of IP54 and meeting the requirements of EN 60079-0 or certified as Ex e and in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application.



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 5 of 5

Date of issue: 2024-10-09

Issue No: 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Addition of product variants due to changes in electronics



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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Certificate No.: **IECEx FMG 18.0005X**

Page 1 of 5

Certificate history:

Status: **Current**

Issue No: 5

[Issue 4 \(2024-10-09\)](#)

[Issue 3 \(2022-01-27\)](#)

[Issue 2 \(2021-01-25\)](#)

[Issue 1 \(2020-02-17\)](#)

[Issue 0 \(2018-10-04\)](#)

Date of Issue: 2024-12-05

Applicant: **Bühler Technologies GmbH**
Harkortstrasse 29
Ratingen, D-40880
Germany

Equipment: **TC-6 Thermoelectric Cooler**

Optional accessory:

Type of Protection: **Increased Safety e, Enclosed Break nC**

Marking: **Ex ec nC IIC T4 Gc**

Ta = 0°C to +40°C or 0°C to +50°C (TC-Standard X2 & TC-Standard+ X2 Models)

Ta = 0°C to +40°C or 0°C to +60°C (TC-MIDI X2 & TC-MIDI+ X2 and TC-Double X2 & TC-Double+ X2 Models)

Approved for issue on behalf of the IECEx
Certification Body:

J. E. Marquedant

Position:

VP, Manager - Electrical Systems

Signature:
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Date:
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Norwood MA 02062
United States of America





IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 2 of 5

Date of issue: 2024-12-05

Issue No: 5

Manufacturer: **Bühler Technologies GmbH**
Harkortstrasse 29
Ratingen, D-40880
Germany

Manufacturing
locations:

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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 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

[IEC 60079-7:2015](#) Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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 Reports:

[US/FMG/ExTR18.0005/00](#)
[US/FMG/ExTR18.0005/03](#)

[US/FMG/ExTR18.0005/01](#)
[US/FMG/ExTR18.0005/04](#)

[US/FMG/ExTR18.0005/02](#)
[US/FMG/ExTR18.0005/05](#)

Quality Assessment Report:

[DE/BVS/QAR16.0002/07](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 3 of 5

Date of issue: 2024-12-05

Issue No: 5

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

TC-Standard (+) (X2)

4496 21 abcdefghijklmno

a = Quantity of heat exchangers; 1 or 2

b = Operating temperature; 40°C or 50°C

c = application area

d = voltage; 3

e, f, g = Type of heat exchangers

h, i = Type and connection of peristaltic pumps

j, k = Type of humidity sensor and filter

l, m = Status output

n, o = Delta temperature; yes or no

TC-MIDI (+) (X2)

4496 31 abcdefghijklmno

a = Quantity of heat exchangers; 1 or 2

b = Operating temperature; 40°C or 60°C

c = Application area

d = Voltage; 2

e, f, g = Type of heat exchangers

h = Type peristaltic pumps

i = Type of gas pumps

j, k = Type of humidity sensor and filter

l, m = Status output

n, o = Delta temperature; yes or no

TC-Double (+) (X2)

4496 611 abcdefghijklmn

a = Operating temperature; 40°C or 60°C; pre-cooling yes or no

b = Application area

c = Voltage; 2

d, e, f = Type of heat exchangers

g = Type of peristaltic pumps

h = Type of gas pumps

i, j = Type of humidity sensor and filter



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 4 of 5

Date of issue: 2024-12-05

Issue No: 5

k, l = status output

m, n = blank

SPECIFIC CONDITIONS OF USE: YES as shown below:

The equipment shall be installed within a tool-secured enclosure providing a minimum degree of protection of IP54 and meeting the requirements of EN 60079-0 or certified as Ex e and in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application.



IECEx Certificate of Conformity

Certificate No.: **IECEx FMG 18.0005X**

Page 5 of 5

Date of issue: 2024-12-05

Issue No: 5

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Document Updates