Translation

(1) 5th Supplement to the EC-Type Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
Supplement accordant with Annex III number 6

(3) No. of EC-Type Examination Certificate: **DMT 03 ATEX E049**

(4) Equipment : **Stopping plugs and reducers type**

V-Ex	**1.297.****.**
RSD-MS-Ex	**1.078.****.**
V-MS-Ex	**1.197.****.**
V-Ms-FPM-Ex	**1.198.****.**
RSD-MS-Ex	**1.079.****.**
V-Ms-VMQ-Ex	**1.199.****.**
V-INOX-Ex	**1.192.****.**
V-INOX-Ex	**1.193.****.**
V-INOX-Ex	**1.194.****.**
RSD-INOX-Ex	**1.098.****.**
RSD-INOX-Ex	**1.099.****.**

(5) Manufacturer: **HUMMEL AG**

(6) Address: **Lise-Meitner-Straße 2, 79211 Denzlingen, Germany**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this supplement.

(8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in the test and assessment report BVS PP 03.2028 EG/N5.

(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 60079-0:2012	**General requirements**
EN 60079-7:2007	**Increased safety "e"**
EN 60079-31:2014	**Protection by enclosure "t"**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.

(11) This supplement to the EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49.234.3696-105 Fax +49.234.3696-110 zs-exam@dekra.com

(12) The marking of the equipment shall include the following:

II 2G Ex e IIC Gb
II 1D Ex ta IIIC Da

DEKRA EXAM GmbH
Bochum, dated 2014-11-05

Signed: Simanski	Signed: Dr. Eickhoff
Certification body	Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49.234.3696-105 Fax +49.234.3696-110 zs-exam@dekra.com

(13) Appendix to

(14) **5th Supplement to the EC-Type Examination Certificate DMT 03 ATEX E049**

(15) 15.1 Subject and type

Stopping plugs and reducers type

V-Ex	1.297.****.**
RSD-MS-Ex	1.078.****.**
V-MS-Ex	1.197.****.**
V-Ms-FPM-Ex	1.198.****.**
RSD-MS-Ex	1.079.****.**
V-Ms-VMQ-Ex	1.199.****.**
V-INOX-Ex	1.192.****.**
V-INOX-Ex	1.193.****.**
V-INOX-Ex	1.194.****.**
RSD-INOX-Ex	1.098.****.**
RSD-INOX-Ex	1.099.****.**

The * will be replaced by digits to describe the thread dimensions and the accompanying dimensions.

15.2 Description

The stopping plugs and reducers are designed for the installation at electrical apparatus in type of protection Increased Safety "e" or Protection by enclosure "t". Not more than one reduction could be used in combination with a cable entry which is certified for these use. The stopping plugs serves as blanking elements to close unused threaded holes.

This supplement is issued to ensure the compliance of the equipment with the updated versions of the applicable standards.

15.3 Parameters

Permitted service temperature range

V-Ex	1.297.****.**	-20 °C up to 90 °C
RSD-MS-Ex	1.078.****.**	-20 °C up to 95 °C
V-MS-Ex	1.197.****.**	-20 °C up to 95 °C
V-Ms-FPM-Ex	1.198.****.**	-20 °C up to 180 °C
RSD-MS-Ex	1.079.****.**	-60 °C up to 180 °C
V-Ms-VMQ-Ex	1.199.****.**	-60 °C up to 180 °C
V-INOX-Ex	1.192.****.**	-20 °C up to 95 °C
V-INOX-Ex	1.193.****.**	-20 °C up to 180 °C
V-INOX-Ex	1.194.****.**	-60 °C up to 180 °C
RSD-INOX-Ex	1.098.****.**	-20 °C up to 95 °C
RSD-INOX-Ex	1.099.****.**	-60 °C up to 180 °C

The ambient temperature of electrical equipment is usually limited. The maximum ambient temperature permitted for these stopping plugs and reducers may in use be utilized up to the permitted service temperature.

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(16) Test and assessment report

BVS PP 03 2028 EG as of 2014-11-05

(17) Special conditions for safe use

None

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
44809 Bochum, 2014-11-13
BVS-Ew/Ar A 20130115

Certification body

Special services unit

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Translation

4th Supplement

(Supplement in accordance with Directive 94/9/EC Annex III number 6)

to the EC-Type Examination Certificate
DMT 03 ATEX E 049

Equipment:	**Threaded plugs and reducing bushings type RD-MS-Ex 1.078.****.**, type V-MS-Ex 1.197.****.**, type V-MS-Ex 1.198.****.**, type V-Ex 1.297.****.**, type RSD-MS-Ex 1.079.****.** and type V-MS-Ex 1.199.****.****
Manufacturer:	**HUMMEL Elektrotechnik GmbH**
Address:	**79183 Waldkirch, Germany**

Description

The threaded plugs and reducing bushings are intended for being attached to apparatus that meets the requirements of the type of protection Increased Safety (Ex e II). They may also installed in areas where combustible dust is present. One reducing bushing maximum is to be used with each cable entry or conduit that has been certified for this purpose. The threaded plugs serve the purpose of sealing unused threaded holes.
The main reason for issuing this supplement is the fact that there have been adjustments of the following standards: EN 60079-0:2006 General Requirements; EN 60079-7:2003 Increased Safety 'e'; EN 61241-0:2006 General Requirements and EN 61241-1:2004 Protection by Enclosures. In future, the threaded plugs and reducing bushings may be manufactured according to the documents listed in the test report if the marking is modified accordingly.

The Essential Health and Safety Requirements of the modified equipment are assured by compliance with:

EN 60079-0:2006	General requirements
EN 60079-7:2003	Increased safety
EN 61241-0:2006	General requirements
EN 61241-1:2004	Protection by enclosures

The marking of the equipment shall include the following:

II 2G 1D Ex e II tD A20 IP68*

* IP68 Marking on packaging or accompanying operating manual

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail zs-exam@dekra.com
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany)

Special conditions for safe use
None

Test and assessment report
BVS PP 03.2028 EG as of 13.02.2008

DEKRA EXAM GmbH
Bochum, dated 13th February 2008

Signed: Dr. Jockers	Signed: Dr. Eickhoff
Certification body	Special services unit

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 16.06.2008
BVS-Ld/Ar E 0864/08

DEKRA EXAM GmbH

Certification body	Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail zs-exam@dekra.com
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany)

EXAM
BBG Prüf- und Zertifizier GmbH

Translation

3rd Supplement

(Supplement in accordance with Directive 94/9/EC Annex III number 6)

to the EC-Type Examination Certificate
DMT 03 ATEX E 049

Equipment:	**Stopping plugs and reductions** **type RD-MS-Ex 1.078.****.**** **type V-MS-Ex 1.197.****.**** **type V-MS-Ex 1.198.****.**** **type V-Ex 1.297.****.**** **type RSD-MS-Ex 1.079.****.**** **type V-MS-Ex 1.199.****.****
Manufacturer:	**HUMMEL Elektrotechnik GmbH**
Address:	**79183 Waldkirch, Germany**

Description
Now the stopping plugs and reductions can be modified according to the descriptive documents as mentioned in the pertinent test and assessment report. Now they are also intended for the use in combustible dust atmospheres of category 1D.

The Essential Health and Safety Requirements of the modified equipment are assured by compliance with:

EN 50014:1997+A1-A2	General requirements
EN 50019:2000	Increased safety ´e´
EN 50281-1-1:1998 +A1	Dust explosion protection

Marking

The marking of the equipment shall include the following:

II 2G EEx e II
II 1D IP 68

Test and assessment report
BVS PP 03.2028 EG as of 14.09.2005

EXAM BBG Prüf- und Zertifizier GmbH
Bochum, dated 14. September 2005

Signed: Dr. Jockers	Signed: Dr. Eickhoff
Certification body	Special services unit

Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234 3696-105 Fax +49 234 3696-110
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen)

[redacted]

EXAM
BBG Prüf- und Zertifizier GmbH

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 14. September 2005
BVS-Ld/Kw A 20050469

EXAM BBG Prüf- und Zertifizier GmbH

Certification body

Special services unit

Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234 3696-105 Fax +49 234 3696-110
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen)

Translation

2nd Supplement

(Supplement in accordance with Directive 94/9/EC Annex III number 6)

to the EC-Type Examination Certificate
DMT 03 ATEX E 049

Equipment:	**Stopping plugs and reductions** **Type RD-MS-Ex 1.078.****.**** **Type V-MS-Ex 1.197.****.**** **Type V-MS-Ex 1.198.****.**** **Type V-Ex 1.297.****.**** **and Stopping plugs and reductions** **Type RSD-MS-Ex 1.079.****.**** **Type V-MS-Ex 1.199.****.****
Manufacturer:	**HUMMEL Elektrotechnik GmbH**
Address:	**D - 79183 Waldkirch**

Description
Now the stopping plugs and reductions can be manufactured according to the descriptive documents as mentioned in the pertinent test and assessment report in other types made from metal material. They are designed with sealing devices made of silicon for the installation at electrical apparatus type of protection "increased safety" (EEx e II) with increased temperature range from -60 °C up to +180 °C. The stopping plugs are also intended for the use in combustible dust atmospheres.

The stopping plug will receive the type marking :
Type RSD-MS-Ex 1.079.**.****
Type V-MS-Ex 1.199.**.****

The Essential Health and Safety Requirements of the modified equipment are assured by compliance with:

EN 50014:1997+A1-A2	General requirements
EN 50019:2000	Increased safety
EN 50281-1-1:1998 +A1	Dust explosion protection

Parameters

Permitted temperature range	type RD-MS-Ex 1.078.****.**	-20 °C	up to	+95 °C
	type V-MS-Ex 1.197.****.**	-20 °C	up to	+95 °C
	type V-MS-Ex 1.198.****.**	-20 °C	up to	+180 °C
	type V-Ex 1.297.****.**	-20 °C	up to	+90 °C
	type RSD-MS-Ex 1.079.**.****	**-60 °C**	**up to**	**+180 °C**
	type V-MS-Ex 1.199.**.****	**-60 °C**	**up to**	**+180 °C**

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(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany)

EXAM
BBG Prüf- und Zertifizier GmbH

The ambient temperature range of electrical apparatus is normally limited to –20 °C ≤ Ta ≤ +40 °C. The ambient temperature range can be exceeded for the use of these stopping plugs and reductions as long as companying to the type the permitted temperature range of –60 °C to +180 °C is taken into account.

Test and assessment report
BVS PP 03.2028 EG as of 11.10.2004

EXAM BBG Prüf- und Zertifizier GmbH
Bochum, dated 11. October 2004

Signed: Dr. Jockers
Certification body

Signed: Dr. Eickhoff
Special services

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 11. October 2004
BVS-Ld/Kw A 20040130

EXAM BBG Prüf- und Zertifizier GmbH

Certification body

Special services

Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 201 172-3947 Fax +49 201 172-3948
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany)

EXAM

BBG Prüf- und Zertifizier GmbH

Translation

1st Supplement

(Supplement in accordance with Directive 94/9/EC Annex III number 6)

to the EC-Type Examination Certificate
DMT 03 ATEX E 049

Equipment:	**Stopping plugs and reductions** **Type RD-MS-Ex 1.078.****.**** **Type V-MS-Ex 1.197.****.**** **Type V-MS-Ex 1.198.****.**** **and Stopping plugs** **Type V-Ex 1.297.****.****
Manufacturer:	**HUMMEL Elektrotechnik GmbH**
Address:	**D - 79183 Waldkirch**

Description
Now the stopping plugs and reductions can be manufactured according to the descriptive documents in another stopping plug type made from plastic material. They are designed for the installation at electrical apparatus type of protection "increased safety" (EEx e II). Not more than one reduction could be used in combination with a cable entry which is certified for these use. The stopping plugs serves as blanking elements to close unused threaded holes. The stopping plugs are also intended for the use in combustible dust atmospheres.

The stopping plug will receive the type marking :
Type V-Ex 1.297.**.****

The Essential Health and Safety Requirements of the modified equipment are assured by compliance with:

EN 50014:1997+A1-A2	General requirements
EN 50019:2000	Increased safety
EN 50281-1-1:1998 +A1	Dust explosion protection

Marking

Permitted temperature range	type RD-MS-Ex 1.078.****.**	-20 °C up to +95 °C
	type V-MS-Ex 1.197.****.**	-20 °C up to +95 °C
	type V-MS-Ex 1.198.****.**	-20 °C up to +180 °C
	type V-Ex 1.297.**.****	**-20 °C up to +90 °C**

The ambient temperature range of electrical apparatus is normally limited to –20 °C ≤ Ta ≤ +40 °C. The ambient temperature range can be exceeded for the use of these stopping plugs and reductions as long as companying to the type the permitted temperature range of –20 °C to +180 °C is taken into account.

Test and assessment report
BVS PP 03.2028 EG as of 04.02.2004

Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 201 172-3947 Fax +49 201 172-3948
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany

EXAM
BBG Prüf- und Zertifizier GmbH

EXAM BBG Prüf- und Zertifizier GmbH
Bochum, dated 04. February 2004

Signed: Jockers
Certification body

Signed: Eickhoff
Special services unit

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 04.02.2004
BVS-Ld/Mi A 20030650

EXAM BBG Prüf- und Zertifizier GmbH

Certification body

Special services unit

Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 201 172-3947 Fax +49 201 172-3948
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany

Translation

(1) # EC-Type Examination Certificate

(2) **- Directive 94/9/EC -**
Equipment and protective systems intended for use in potentially explosive atmospheres

(3) ## DMT 03 ATEX E 049

(4) **Equipment:** **Stopping plugs and reductions type RD-MS-Ex 1.078.****.**, type V-MS-Ex 1.197.****.** and type V-MS-Ex 1.198.****.****

(5) **Manufacturer:** **HUMMEL Elektrotechnik GmbH**

(6) **Address:** **D 79183 Waldkirch**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the schedule to this type examination certificate.

(8) The certification body of Deutsche Montan Technologie GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.
The examination and test results are recorded in the test and assessment report BVS PP 03.2028 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 50014:1997+A1-A2	General requirements
EN 50019:2000	Increased safety
EN 50281-1-1:1998	Dust explosion protection

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate

(12) The marking of the equipment shall include the following:

II 2GD EEx e II IP 68

Deutsche Montan Technologie GmbH
Essen, dated 20. March 2003

Signed: Jockers
DMT-Certification body

Signed: Eickhoff
Head of special services unit

Am Technologiepark 1, 45307 Essen, Telefon (0201)172-1416, Telefax (0201)172-1716

(13) Appendix to

(14) # EC-Type Examination Certificate

DMT 03 ATEX E 049

(15) 15.1 Subject and type
Stopping plugs and reductions
Typ RD-MS-Ex 1.078.****.**
Typ V-MS-Ex 1.197.****.**
Typ V-MS-Ex 1.198.****.**

The * will be replaced by digits to describe the thread dimensions and the accompanying dimensions.

15.2 Description
The stopping plugs and reductions are designed for the installation at electrical apparatus type of protection "increased safety" (EEx e II). Not more than one reduction could be used in combination with a cable entry which is certified for these use. The stopping plugs serves as blanking elements to close unused threaded holes. The stopping plugs and reductions are also intended for the use in combustible dust atmospheres.

15.3 Parameters

Permitted temperature range	type RD-MS-Ex 1.078.****.**	-20 °C up to +95 °C
	type V-MS-Ex 1.197.****.**	-20 °C up to +95 °C
	type V-MS-Ex 1.198.****.**	-20 °C up to +180 °C

The ambient temperature range of electrical apparatus is normally limited to –20 °C ≤ Ta ≤+40 °C. The ambient temperature range can be exceeded for the use of these stopping plugs and reductions as long as companying to the type the permitted temperature range of –20 °C to +180 °C is taken into account.

(16) Test and assessment report
BVS PP 02.2028 EG as of 20.03.2003

(17) Special conditions for safe use
not relevant

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

45307 Essen, 20.03.2003
BVS-Ld/Mi A 20020279

Deutsche Montan Technologie GmbH

DMT-Certification body

Head of special services unit