


Translation

(1) EC-Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) No. of EC-Type Examination Certificate: **BVS 13 ATEX E 014 U**
- (4) Component: **Empty enclosure type N-TB ** ** * * * * * SL * ******
- (5) Manufacturer: **Cooper Crouse-Hinds GmbH**
- (6) Address: **Neuer Weg-Nord 49, 69412 Eberbach**
- (7) The design and construction of this component and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (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 component 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 13.2100 EG.
- (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 60079-31:2009 Protection by enclosures "t"
- (10) The sign "U" placed after the certificate number indicates that the certificate must not be mistaken for a certificate for equipment or a protective system. This certificate may only be used as the basis for the certification of equipment or a protective system.
- (11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified component in accordance to Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.
- (12) The marking of the component shall include the following:

 **II 2G Ex e IIC Gb**
II 2D Ex tb IIIC Db

DEKRA EXAM GmbH
Bochum, dated 22nd May 2013

Signed: Hans-Christian Simanski

Certification body

Signed: Dr. Michael Wittler

Special services unit

- (13) Appendix to
- (14) **EC-Type Examination Certificate**
BVS 13 ATEX E 014 U
- (15) 15.1 Subject and type

Empty enclosure type N-TB * * * * * SL * * * * *

<u>Asterisks</u>	<u>Description</u>
1...2	Enclosure material S1 316L stainless steel – polished S2 304 stainless steel – polished S3 316L stainless steel – natural S5 304 stainless steel – natural
3...4	Height of the enclosure noted in cm ¹⁾ Range: 22 ... 105
5...6	Width of the enclosure noted in cm ¹⁾ Range: 15 ... 74
7...8	Depth of the enclosure noted in cm ¹⁾ Range: 13 ... 34
9	Gland plate 0 without 1 one side 2 two sides 3 three sides 4 all sides
10	Type of gasket ¹⁾ 1 Standard 2 Flat gasket 1 3 Flat gasket 2 4 Combination of Standard and Flat gasket 1 5 Combination of Standard and / or Flat gasket 1 and Flat gasket 2
11	Type plate fastening 1 glued 2 riveted
12...15	Miscellaneous variants without influences on explosion protection

¹⁾ Please see "Parameters" for detailed information about the possible combinations of height, width, length and type of gasket.

15.2 Description

The empty enclosure type N-TB * * * * * SL * * * * is designed in type of protection Increased Safety 'e' for use in areas endangered by gas atmospheres and in type of protection Protection by Enclosure 't' for use in areas endangered by dust atmospheres.

The enclosure is completely made of stainless steel with one or more non-metallic gaskets.

The empty enclosure type N-TB * * * * * SL * * * * consists of an enclosure housing, an enclosure lid and optionally of gland plates for the mounting of cable glands. The enclosure housing and the enclosure lid are made of folded and welded stainless steel plates. The non-metallic gaskets are placed between the enclosure housing and the enclosure lid and in case of the optional gland plates between the enclosure housing and each gland plate.

The lid is mounted to the housing by use of hinges on one side.

The rail for mounting terminals inside the enclosure can optionally be replaced by bolts.

Optionally a separately certified breathing element can be mounted to the enclosure.

15.3 Parameters

Ingress protection

IP66

List of possible enclosure variants depending on enclosure size and type of gasket

Size	Gasket	Size	Gasket	Size	Gasket	Size	Gasket	Size	Gasket
22-15-13	1 2 3	38-30-23	1 2 3	45-55-20	1 2 3	50-64-20	1 2 3	76-50-20	1
26-26-16	1 2 3	38-38-23	1 2 3	48-48-16	1 2 3	60-64-20	1 2 3	86-64-16	1
26-26-20	1 2 3	38-45-20	1 2 3	48-48-20	1 2 3	62-45-16	1 2 3	86-64-20	1
30-30-16	1 2 3	40-40-16	1 2 3	50-35-16	1 2 3	62-45-20	1 2 3	91-61-20	1
30-30-20	1 2 3	40-50-15	1 2 3	50-35-20	1 2 3	73-73-34	1	98-74-16	1
30-35-20	1 2 3	45-38-16	1 2 3	50-45-20	1 2 3	74-55-16	1	98-74-20	1
38-26-16	1 2 3	45-38-20	1 2 3	50-55-20	1 2 3	74-55-20	1	105-61-20	1

38-26-20 1 2 3

- 1 Gasket type Standard
- 2 Gasket type Flat gasket 1
- 3 Gasket type Flat gasket 2

Permissible temperature range for the different non-metallic materials

Material	Operating temperature range
Standard	-40 °C ... 120 °C
Flat gasket 1	-40 °C ... 120 °C
Flat gasket 2	-35 °C ... 120 °C
Plastic washer ⁴	-40 °C ... 65 °C

⁴ The plastic washer is only relevant for the enclosure variant with sealed earthing stud.

(16) Test and Assessment Report

BVS PP 13.2100 EG as of 22.05.2013

(17) Installation instructions

The operation temperatures of the sealing materials have to be taken into account for the certification of the complete equipment.

The creepage and clearance distances in the empty enclosure type N-TB * * * * * SL * * * * * have to be taken into account for the complete electrical equipment.

If the earthing facility is carried out with a M10 stud the maximum connectable cross section is 120 mm². If the earthing facility is carried out with a M14 stud the maximum connectable cross section is 300 mm². The maximum cross section of the earthing stud has to be taken into account for the maximum acceptable cross section of the supply lines for the complete electrical equipment.

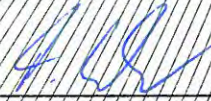
The lid must be opened and closed in vertical position so that the hinges are surely protected against excessive mechanical forces.

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, 22nd May 2013
BVS-Kir/Mu A 20111022



Certification body




Special services unit

Translation

(1) 1st 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: **BVS 13 ATEX E 014 U**
- (4) Component: **Empty enclosure type N-TB ** * * * * * SL * ******
- (5) Manufacturer: **Cooper Crouse-Hinds GmbH**
- (6) Address: **Neuer Weg-Nord 49, 69412 Eberbach, Germany**
- (7) The design and construction of this component 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 component 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 13.2100 EG.
- (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 60079-31:2009 Protection by enclosure "t"
- (10) The sign "U" placed after the certificate number indicates that the certificate must not be mistaken for a certificate for equipment. This certificate may only be used as the basis for the certification of equipment.
- (11) This supplement to the EC-Type Examination Certificate relates only to the design, examination and tests of the specified component in accordance to Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.
- (12) The marking of the component shall include the following:

 **II 2G Ex e IIC Gb**
II 2D Ex tb IIIC Db

DEKRA EXAM GmbH
Bochum, dated 2014-05-08

Signed: Simanski

Certification body

Signed: Dr. Wittler

Special services unit

- (13) Appendix to
- (14) **1st Supplement to the EC-Type Examination Certificate
BVS 13 ATEX E 014 U**
- (15) 15.1 Subject and type

Empty enclosure type N-TB * * * * * SL * * * * *

<u>Asterisks</u>	<u>Description</u>	
1...2	Enclosure material	
	S1	316L stainless steel - polished
	S2	304 stainless steel - polished
	S3	316L stainless steel - natural
	S5	304 stainless steel - natural
3...4	Height of the enclosure noted in cm ¹⁾ Range: 22 up to 105	
5...6	Width of the enclosure noted in cm ¹⁾ Range: 15 up to 74	
7...8	Depth of the enclosure noted in cm ¹⁾ Range: 13 up to 34	
9	Gland plate	
	0	without
	1	one side
	2	two sides
	3	three sides
	4	all sides
10	Type of gasket ¹⁾	
	1	Standard
	2	Flat gasket 1
	3	Flat gasket 2
	4	combination of Standard and Flat gasket 1
	5	combination of Standard and/or Flat gasket 1 and Flat gasket 2
11	Type plate fastening	
	1	glued
	2	riveted
12...15	Miscellaneous variants without influences on explosion protection	

¹⁾ Please see *Parameters* for detailed information about the possible combinations of height, width, length and type of gasket.

15.2 Description

The empty enclosure type N-TB ** * * * * * SL * **** is designed in type of protection Increased Safety 'e' for use in areas endangered by gas atmospheres and in type of protection Protection by Enclosure 't' for use in areas endangered by dust atmospheres.

The enclosure is completely made of stainless steel with one or more non-metallic gaskets.

The empty enclosure type N-TB ** * * * * * SL * **** consists of an enclosure housing, an enclosure lid and optionally of gland plates for the mounting of cable glands. The enclosure housing and the enclosure lid are made of folded and welded stainless steel plates. The non-metallic gaskets are placed between the enclosure housing and the enclosure lid and in case of the optional gland plates between the enclosure housing and each gland plate.

The lid is mounted to the housing by use of hinges on one side.

The rail for mounting terminals inside the enclosure can optionally be replaced by bolts.

Optionally a separately certified breathing element can be mounted to the enclosure.

Reasons for this supplement are:

- two new enclosure variants with the dimensions 30-18-15 and 37-31-15
- additional gland plates with modified dimensions
- change in construction without influence to the explosion protection relevant parts to use a padlock

15.3 Parameters

Ingress protection

IP66

List of possible enclosure variants depending on enclosure size and type of gasket

Size	Gasket	Size	Gasket	Size	Gasket	Size	Gasket	Size	Gasket
22-15-13	1 ²³	38-26-16	1 ²³	45-38-20	1 ²³	50-64-20	1 ²³	86-64-16	1
26-26-16	1 ²³	38-26-20	1 ²³	45-55-20	1 ²³	60-64-20	1 ²³	86-64-20	1
26-26-20	1 ²³	38-30-23	1 ²³	48-48-16	1 ²³	62-45-16	1 ²³	91-61-20	1
30-18-15	1 ²³	38-38-23	1 ²³	48-48-20	1 ²³	62-45-20	1 ²³	98-74-16	1
30-30-16	1 ²³	38-45-20	1 ²³	50-35-16	1 ²³	73-73-34	1	98-74-20	1
30-30-20	1 ²³	40-40-16	1 ²³	50-35-20	1 ²³	74-55-16	1	105-61-20	1
37-31-15	1 ²³	40-50-15	1 ²³	50-45-20	1 ²³	74-55-20	1		
30-35-20	1 ²³	45-38-16	1 ²³	50-55-20	1 ²³	76-50-20	1		

¹ Gasket type Standard

² Gasket type Flat gasket 1

³ Gasket type Flat gasket 2

Permissible temperature range for the different non-metallic materials

Material	Operating temperature range
Standard	-40 °C up to 120 °C
Flat gasket 1	-40 °C up to 120 °C
Flat gasket 2	-35 °C up to 120 °C
Plastic washer ⁴	-40 °C up to 65 °C

⁴ The plastic washer is only relevant for the enclosure variant with sealed earthing stud.

(16) Test and Assessment Report

BVS PP 13.2100 EG as of 2014-05-08

(17) Installation instructions

The operation temperatures of the sealing materials have to be taken into account for the certification of the complete equipment.

The creepage and clearance distances in the empty enclosure type N-TB ** * * * * * SL * * * * * have to be taken into account for the complete electrical equipment.

If the earthing facility is carried out with a M10 stud the maximum connectable cross section is 120 mm². If the earthing facility is carried out with a M14 stud the maximum connectable cross section is 300 mm². The maximum cross section of the earthing stud has to be taken into account for the maximum acceptable cross section of the supply lines for the complete electrical equipment.

The lid must be opened and closed in vertical position so that the hinges are surely protected against excessive mechanical forces.

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, 2014-05-08
BVS-Kir/Ma A20140312



Certification body





Special services unit

Translation

(1) 2nd 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: **BVS 13 ATEX E 014 U**
- (4) Component: **Empty enclosure type N-TB ** * * * * * SL * * * * ***
- (5) Manufacturer: **Cooper Crouse-Hinds GmbH**
- (6) Address: **Neuer Weg-Nord 49, 69412 Eberbach, Germany**
- (7) The design and construction of this component 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 component 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 13.2100 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
 - EN 60079-0:2012 + A11:2013 General requirements**
 - EN 60079-7:2007 Increased safety "e"**
 - EN 60079-31:2014 Protection by enclosure "t"**
- (10) The sign "U" placed after the certificate number indicates that the certificate must not be mistaken for a certificate for equipment. This certificate may only be used as the basis for the certification of equipment.
- (11) This supplement to the EC-Type Examination Certificate relates only to the design, examination and tests of the specified component in accordance to Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.
- (12) The marking of the component shall include the following:

	II 2G Ex e IIC Gb	or	Type N-TB S* ...
	II 2G Ex e IIB Gb		
	II 2D Ex tb IIIC Db		
	II 2G Ex e IIC Gb	or	Type N-TB P* ...
	II 2G Ex e IIB Gb		

DEKRA EXAM GmbH
Bochum, dated 2015-10-29

Signed: Simanski

Signed: Dr. Wittler

Certification body

Special services unit

- (13) Appendix to
- (14) **2nd Supplement to the EC-Type Examination Certificate
BVS 13 ATEX E 014 U**
- (15) 15.1 Subject and type

Empty enclosure type N-TB * * * * * SL * * * * *

Asterisks Description

- | | |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 - 2 | Enclosure material
S1 316L stainless steel - polished
S2 304 stainless steel - polished
S3 316L stainless steel - natural
S5 304 stainless steel - natural
P1 316L stainless steel - painted variant 1 (only for usage in gas atmospheres)
P2 304 stainless steel - painted variant 1 (only for usage in gas atmospheres)
P4 316L stainless steel - painted variant 2 (only for usage in gas atmospheres)
P5 304 stainless steel - painted variant 2 (only for usage in gas atmospheres) |
| 3 - 4 | Height of the enclosure noted in cm ¹
Range: 22 up to 105 |
| 5 - 6 | Width of the enclosure noted in cm ¹
Range: 15 up to 74 |
| 7 - 8 | Depth of the enclosure noted in cm ¹
Range: 13 up to 34 |
| 9 | Gland plate
0 without
1 one side
2 two sides
3 three sides
4 all sides |
| 10 | Type of gasket ¹
1 (standard)
2 (flat gasket 1)
3 (flat gasket 2)
4 combination of (standard) and (flat gasket 1)
5 combination of (standard) and/or (flat gasket 1) and (flat gasket 2)
6 combination of (flat gasket 1) and (flat gasket 2)
7 combination of (standard) and (flat gasket 2) |
| 11 | Type plate fastening
1 glued
2 riveted |
| 12 - 15 | Miscellaneous variants without influences on explosion protection |

¹ Detailed information about the possible combinations of height, width, length and type of gasket are given in the clause parameters.

15.2 Description

The empty enclosure type N-TB * * * * * SL * * * * is designed in type of protection Increased Safety 'e' for use in potentially hazardous areas caused by gas atmospheres and in type of protection Protection by Enclosure 't' for use in potentially hazardous areas caused by dust atmospheres.

The enclosure is completely made of stainless steel with one or more non-metallic gaskets. Optionally the enclosure can be painted for usage in areas endangered by gas atmospheres.

The empty enclosure type N-TB * * * * * SL * * * * consists of an enclosure housing, an enclosure lid and optionally of gland plates for the mounting of cable glands. The enclosure housing and the enclosure lid are made of folded and welded stainless steel plates. The non-metallic gaskets are placed between the enclosure housing and the enclosure lid and in case of the optional gland plates between the enclosure housing and each gland plate.

The lid is mounted to the housing by use of hinges on one side.

The rail for mounting terminals inside the enclosure can optionally be replaced by bolts.

Optionally a separately certified breathing element can be mounted to the enclosure.

Reasons for this supplement are:

1. New enclosure variant 76-50-16
2. Enclosure variant with size 73-73-34 up to size 105-61-20 can now also be manufactured with flat gasket 2
3. The enclosures can now be painted with different painting systems. The paintings are not acceptable in areas responsible for the ingress protection of the enclosures.
4. Optionally the gland plates can now also be painted, except the areas responsible for the ingress protection of the enclosure.
5. Optionally the earthing stud can now be sealed with an alternative sealing material.
6. The lower service temperature limit of the standard gasket is now -55 °C

15.3 Parameters

Ingress protection

IP66

List of possible enclosure size

Size	Gasket	Size	Gasket	Size	Gasket	Size	Gasket	Size	Gasket
22-15-13	^{1 2 3}	38-26-16	^{1 2 3}	45-38-20	^{1 2 3}	50-64-20	^{1 2 3}	76-50-20	^{1 3}
26-26-16	^{1 2 3}	38-26-20	^{1 2 3}	45-55-20	^{1 2 3}	60-64-20	^{1 2 3}	86-64-16	^{1 3}
26-26-20	^{1 2 3}	38-30-23	^{1 2 3}	48-48-16	^{1 2 3}	62-45-16	^{1 2 3}	86-64-20	^{1 3}
30-18-15	^{1 2 3}	38-38-23	^{1 2 3}	48-48-20	^{1 2 3}	62-45-20	^{1 2 3}	91-61-20	^{1 3}
30-30-16	^{1 2 3}	38-45-20	^{1 2 3}	50-35-16	^{1 2 3}	73-73-34	^{1 3}	98-74-16	^{1 3}
30-30-20	^{1 2 3}	40-40-16	^{1 2 3}	50-35-20	^{1 2 3}	74-55-16	^{1 3}	98-74-20	^{1 3}
								105-61-20	^{1 3}
37-31-15	^{1 2 3}	40-50-15	^{1 2 3}	50-45-20	^{1 2 3}	74-55-20	^{1 3}		
30-35-20	^{1 2 3}	45-38-16	^{1 2 3}	50-55-20	^{1 2 3}	76-50-16	^{1 3}		

- ¹ Gasket type (standard)
- ² Gasket type (flat gasket 1)
- ³ Gasket type (flat gasket 2)

Permissible temperature range for the different non-metallic materials

Material	Operating temperature range
(standard)	-55 °C ≤ T _{service} ≤ 120 °C
(flat gasket 1)	-40 °C ≤ T _{service} ≤ 120 °C
(flat gasket 2)	-35 °C ≤ T _{service} ≤ 120 °C
(plastic washer 1)	-40 °C ≤ T _{service} ≤ 65 °C
(plastic washer 2)	-55 °C ≤ T _{service} ≤ 120 °C
(plastic washer 3)	-55 °C ≤ T _{service} ≤ 120 °C



(16) Test and Assessment Report

BVS PP 13.2100 EG as of 2015-10-29

(17) Installation instructions

The operation temperatures of the sealing materials have to be taken into account for the certification of the complete equipment.

The creepage and clearance distances in the empty enclosure type N-TB ** * * * * * SL * * * * * have to be taken into account for the complete electrical equipment.

If the earthing facility is carried out with a M10 stud the maximum connectable cross section is 120 mm². If the earthing facility is carried out with a M14 stud the maximum connectable cross section is 300 mm². The maximum cross section of the earthing stud has to be taken into account for the maximum acceptable cross section of the supply lines for the complete electrical equipment.

The lid must be opened and closed in vertical position so that the hinges are surely protected against excessive mechanical forces.

The empty enclosure type N-TB P* * * * * SL * * * * * may only be used in areas with potential explosive gas atmospheres.

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, 2015-10-29
BVS-Kir/Nu A 20141065

Certification body

Special services unit



Translation

EU-Type Examination Certificate Supplement 3

Change to Directive 2014/34/EU

2 **Components intended for use on/in an Equipment or Protective System intended for use in potentially explosive atmospheres**
Directive 2014/34/EU

3 EU-Type Examination Certificate Number: **BVS 13 ATEX E 014 U**

4 Product: **Empty enclosure type N-TB ** * * * * * SL * ******

5 Manufacturer: **Cooper Crouse-Hinds GmbH**

6 Address: **Neuer Weg-Nord 49, 69412 Eberbach, Germany**

7 This supplementary certificate extends EC-Type Examination Certificate No. BVS 13 ATEX E 014 U to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

8 DEKRA EXAM GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential Report No. PP 13.2100 EU.


9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:


EN 60079-0:2012 + A11:2013 **General requirements**
EN 60079-7:2007 **Increased Safety "e"**
EN 60079-31:2014 **Protection by Enclosure "t"**

10 The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system respectively product.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

 **II 2G Ex e IIC Gb** or
II 2D Ex tb IIIC Db

 **II 2G Ex e IIB Gb**
II 2D Ex tb IIIC Db

DEKRA EXAM GmbH
Bochum, 2016-08-11

Signed: Dr. Franz Eickhoff

Certifier

Signed: Dr. Michael Wittler

Approver

13 **Appendix**

14 **EU-Type Examination Certificate**

**BVS 13 ATEX E 014 U
Supplement 3**

15 **Product description**

15.1 **Subject and type**

Empty enclosure type N-TB ** * * * * * SL * ****

Asterisks Description

- | | |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 - 2 | Enclosure material
S1 316L stainless steel - polished
S2 304 stainless steel - polished
S3 316L stainless steel - natural
S5 304 stainless steel - natural
P1 316L stainless steel - painted variant 1
P2 304 stainless steel - painted variant 1
P4 316L stainless steel - painted variant 2
P5 304 stainless steel - painted variant 2 |
| 3 - 4 | Height of the enclosure noted in cm ¹
Range: 22 up to 105 |
| 5 - 6 | Width of the enclosure noted in cm ¹
Range: 15 up to 74 |
| 7 - 8 | Depth of the enclosure noted in cm ¹
Range: 13 up to 34 |
| 9 | Gland plate
0 without
1 one side
2 two sides
3 three sides
4 all sides |
| 10 | Type of gasket ¹
1 Standard
2 Flat gasket 1
3 Flat gasket 2
4 Combination of Standard and Flat gasket 1
5 Combination of Standard and/or Flat gasket 1 and Flat gasket 2
6 Combination of Flat gasket 1 and Flat gasket 2
7 Combination of Standard and Flat gasket 2 |
| 11 | Type plate fastening
1 glued
2 riveted |
| 12 - 15 | Miscellaneous variants without influences on explosion protection |

¹ Detailed information about the possible combinations of height, width, length and type of gasket are given in the clause parameters.

15.2 Description

With this supplement the certificate is changed to Directive 2014/34/EU.
 (Annotation: In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.)

Reason for the supplement:

- Change to Directive 2014/34/EU
- New definition of possible paintings and changed schedules of limitation.

Description of Product

The empty enclosure type N-TB ** * * * * * SL * * * * * is designed in type of protection Increased Safety 'e' for use in potentially hazardous areas caused by gas atmospheres and in type of protection Protection by Enclosure 't' for use in potentially hazardous areas caused by dust atmospheres.

The enclosure is completely made of stainless steel with one or more non-metallic gaskets. Optionally the enclosure can be painted.

The empty enclosure type N-TB ** * * * * * SL * * * * * consists of an enclosure housing, an enclosure lid and optionally of gland plates for the mounting of cable glands. The enclosure housing and the enclosure lid are made of folded and welded stainless steel plates. The non-metallic gaskets are placed between the enclosure housing and the enclosure lid and in case of the optional gland plates between the enclosure housing and each gland plate.

The lid is mounted to the housing by use of hinges on one side.

The rail for mounting terminals inside the enclosure can optionally be replaced by bolts.

Optionally a separately certified breathing element can be mounted to the enclosure.

15.3 Parameters

Ingress protection IP66

List of possible enclosure size

Size	Gasket	Size	Gasket	Size	Gasket	Size	Gasket	Size	Gasket
22-15-13	^{1 2 3}	38-26-16	^{1 2 3}	45-38-20	^{1 2 3}	50-64-20	^{1 2 3}	76-50-20	^{1 3}
26-26-16	^{1 2 3}	38-26-20	^{1 2 3}	45-55-20	^{1 2 3}	60-64-20	^{1 2 3}	86-64-16	^{1 3}
26-26-20	^{1 2 3}	38-30-23	^{1 2 3}	48-48-16	^{1 2 3}	62-45-16	^{1 2 3}	86-64-20	^{1 3}
30-18-15	^{1 2 3}	38-38-23	^{1 2 3}	48-48-20	^{1 2 3}	62-45-20	^{1 2 3}	91-61-20	^{1 3}
30-30-16	^{1 2 3}	38-45-20	^{1 2 3}	50-35-16	^{1 2 3}	73-73-34	^{1 3}	98-74-16	^{1 3}
30-30-20	^{1 2 3}	40-40-16	^{1 2 3}	50-35-20	^{1 2 3}	74-55-16	^{1 3}	98-74-20	^{1 3}
37-31-15	^{1 2 3}	40-50-15	^{1 2 3}	50-45-20	^{1 2 3}	74-55-20	^{1 3}	105-61-20	^{1 3}
30-35-20	^{1 2 3}	45-38-16	^{1 2 3}	50-55-20	^{1 2 3}	76-50-16	^{1 3}		

- ¹ Gasket type standard
- ² Gasket type flat gasket 1
- ³ Gasket type flat gasket 2

Permissible temperature range for the different non-metallic materials

Material	Operating temperature range
Standard	$-55\text{ °C} \leq T_{\text{service}} \leq 120\text{ °C}$
Flat gasket 1	$-40\text{ °C} \leq T_{\text{service}} \leq 120\text{ °C}$
Flat gasket 2	$-35\text{ °C} \leq T_{\text{service}} \leq 120\text{ °C}$
Plastic washer 1	$-40\text{ °C} \leq T_{\text{service}} \leq 65\text{ °C}$
Plastic washer 2	$-55\text{ °C} \leq T_{\text{service}} \leq 120\text{ °C}$
Plastic washer 3	$-55\text{ °C} \leq T_{\text{service}} \leq 120\text{ °C}$

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17 **Installation Instructions**

The service temperatures of the sealing materials have to be taken into account for the certification of the complete equipment.

The creepage and clearance distances in the empty enclosure type N-TB ** * * * * * SL * * * * * have to be taken into account for the complete electrical equipment.

If the earthing facility is carried out with a M10 stud the maximum connectable cross section is 120 mm². If the earthing facility is carried out with a M14 stud the maximum connectable cross section is 300 mm². The maximum cross section of the earthing stud has to be taken into account for the maximum acceptable cross section of the supply lines for the complete electrical equipment.

The lid must be opened and closed in vertical position so that the hinges are surely protected against excessive mechanical forces.

The empty enclosure type N-TB P* * * * * SL * * * * * may only be used in areas with potentially explosive dust atmospheres if high or repeated charging processes (e.g. air ions in the vicinity of high voltage electrodes, high speed flowing liquids and pneumatic transfer of powders, and paper or plastic foils transported by machines) are surely excluded. Manual rubbing is not considered to be a high charging process.

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

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
Bochum, dated 2016-08-11
BVS-Kir/Nu A 20160567



Certifier



Approver