

Translation

EU-Type Examination Certificate Supplement 2

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 03 ATEX E 222 X**

Product: **Pressure transmitter type P20-, P121- or P131-or
Level transmitter type P133-, P135- or P135K-**

Manufacturer: **Nöding Messtechnik GmbH**

Address: **Oldenfelder Bogen 29, 22143 Hamburg, Germany**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 03 ATEX E 222 X 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.

DEKRA Testing and Certification 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. BVS PP 03.2137 EU.


The Essential Health and Safety Requirements are assured in consideration of:

EN IEC 60079-0:2018 **General requirements**
EN 60079-11:2012 **Intrinsic Safety "i"**

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

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.

The marking of the product shall include the following:

 **II 1G Ex ia IIC T4 Ga
I M2 Ex ia I Mb**

DEKRA Testing and Certification GmbH
Bochum, 2021-08-19

Signed: Jörg-Timm Kilisch

Managing Director

13 **Appendix**
 14 **EU-Type Examination Certificate**

**BVS 03 ATEX E 222
 Supplement 2**

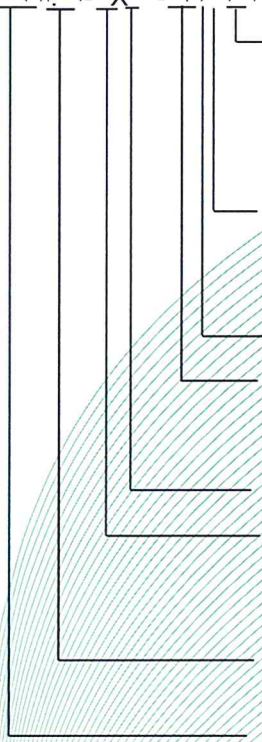
15 **Product description**

15.1 **Subject and type**

Pressure transmitter type P^{**(*)}(<sup>**) - *X^{**} - ^{*(*)}**(**)
 or Level transmitter type P13^{**(*)}(^{**) - *X^{**} - ^{*(*)}** - ^{*(**)}}</sup>

Instead of *, letters and numbers are inserted in the full designation to indicate different versions and have the following meaning:

Pressure transmitter type
 type P^{**(*)}(^{**) - *X^{**} - ^{*(*)}**(**)}



P^{**(*)}(^{**) - *X^{**} - ^{*(*)}**(**)}

Options, e.g.

R: ceramic sensor;
 Regardless of the options selected, devices in Ex design are always encapsulated

Electrical connection

0, 6, H: permanently connected cable
 1, A, F: plug connector

O-ring (always one digit, no letter)

Enclosure form, process connection and material
 For digits always one character.
 For letters one or two characters

Measuring range

Group division
 EX: 4 ... 20 mA II 1G Ex ia IIC T4 Ga
 MX: 4 ... 20 mA I M2 Ex ia I Mb

Optional, one to two characters (not Ex-relevant)

Enclosure and printed circuit board type

P121-, P131-: LP110A/1 with LP110B/2, or LP110C/2
 without lightning protection
 P20-: LP104/2 without lightning protection with LP 111/1

Level transmitter type P13*(*)(**)-*X** - *(*)*** - *(****)

type P13*(*)(**)-*X** - *(*)*** - *(****)

- for type P133: cable material / O-ring / option
for type P135(k): options: e.g.
B: lightning protection; R: ceramic sensor; RB: ceramic sensor & lightning protection;
Regardless of the options selected, devices in Ex design are always encapsulated
- Connecting cable (≤ 70 °C): Digits only. Length of the connection line in meters
- for type P133: One or two characters. If there are two characters, the 2nd character is always a letter. Enclosure type, process connection and material
for type P135(k): Always one character. Enclosure material and O-ring
- Measuring range
- Group division

EX: 4 ... 20 mA	II 1G Ex ia IIC T4 Ga
TX: 4 ... 20 mA +Pt100	II 1G Ex ia IIC T4 Ga
FX: 4 ... 20 mA +Pt1000	II 1G Ex ia IIC T4 Ga
- Optional, one to two characters (not Ex-relevant)
- Enclosure and printed circuit board type

P135-, P135K-:	LP104/2 with LP 111/1 or LP 104/3 with LP121/1 with or without lightning protection
P133-:	LP110A/1 with LP110C/2 with or without lightning protection

15.2 Description

Reason for the supplement:

- The equipment has been assessed in accordance with current standard versions.
- Two additional enclosure variants were added, one of them with "two open cable ends".
- The circuitry and layout have been slightly modified in some cases.

Description of Product

The pressure transmitter or the level transmitter are used to convert a pressure signal into a proportional electrical standard signal of 4...20 mA.

The electrical components are mostly encapsulated in a metal housing. The covers of the various housing types are made of metal or plastic. The electrical connection is made via a terminal connector, a plug-in connector or a permanently connected cable.

For the pressure transmitters the maximum cable length is 50 m, for the level transmitter the maximum cable length is 200 m.

Depending on the maximum permissible ambient temperature, the pressure transmitters or level transmitter in Group II can be used for temperature class T4.

Note: For Group I applications: The interconnection of the pressure transmitters with other devices must be separately tested and certified.

15.3 Parameters

15.3.1 Electrical parameters

15.3.1.1 Pressure transmitter type P20-, P121- or P131- with plug connector or a permanently connected cable (max. 50 m):

Maximum input voltage	U_i	DC	30	V
Maximum input current	I_i		150	mA
Maximum input power	P_i		0.75	W
Maximum internal capacitance (24.2 nF circuit + cable length * distributed capacity 0.15 nF/m)	C_i		31.7	nF
Maximum internal inductance (only cable length * distributed inductance 1 μ H/m)	L_i		50	μ H

15.3.1.2 Level transmitter type P133, P135 or P135K with permanently connected cable (max. 200 m):

Maximum input voltage	U_i	DC	30	V
Maximum input current	I_i		150	mA
Maximum input power	P_i		0.75	W
Maximum internal capacitance (24.2 nF circuit + cable length * distributed capacity 0.15 nF/m)	C_i		54.2	nF
Maximum internal inductance (only cable length * distributed inductance 1 μ H/m)	L_i		200	μ H

15.3.1.3 Pt100 / Pt1000 circuit (option for level transmitter type P133, P135 or P135K)

Three-wire connection with a permanently connected cable (max. 200 m):

Maximum input voltage	U_i	DC	9	V
Maximum input current	I_i		300	mA
Maximum input power	P_i		0.1	W
Maximum internal capacitance (only cable length * distributed capacity)	C_i		36.8	nF
Maximum internal inductance (only cable length * distributed inductance)	L_i		340	μ H

15.3.2 Thermal data

15.3.2.1 Ambient temperature type P20-, P121- or P131- for temperature class T4 or Group I for pressure transmitters with permanently connected cable

-20 °C ... +80 °C
-20 °C ... +70 °C

15.3.2.2 Ambient temperature type P133, P135 or P135K for temperature class T4

-20 °C ... +70 °C

16 Report Number

BVS PP 03.2137 EU, as of 2021-08-19

17 **Special Conditions for Use**

The connecting cable and the connector must be protected against electrostatic charge if they are fed through Category 1G areas.

The metallic enclosure must be electrostatically conductively connected at the installation point. In the case of the Level transmitters with lightning protection, this can be achieved by connecting the cable shielding to the equipotential bonding of the installation.

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 Testing and Certification GmbH
Bochum, 2021-08-19
BVS-Ben/Mu A20210398



Managing Director