

(13) Appendix to

(14) **EC-Type Examination Certificate**
BVS 14 ATEX E 067 X

(15) 15.1 Subject and type

Electronic unit with integrated barrier type VC-PLUS

15.2 Description

The electronic unit which is installed outside the explosive atmosphere is used for supplying power to the sensor and reading the sensor signals.

The limit switch necessary for this is a component of the electronic unit which is safely fastened into a rail enclosure. Up to two sensor are connected via the terminal strips X2 and X3.

15.3 Parameters

15.3.1 Non-intrinsically safe input circuit

| | | | | |
|-----------------|-------|----|-----|---|
| Nominal voltage | | DC | 24 | V |
| Max. voltage | U_m | AC | 250 | V |

15.3.2 Intrinsically safe output circuits (terminal strips X2 and X3)

15.3.2.1 Supply circuit (V_{out+} and V_{out-} , terminals 2 and 3 or brown & white wire)

| | | | | |
|---------|-------|----|------|----|
| Voltage | U_o | DC | 6.16 | V |
| Current | I_o | | 156 | mA |
| Power | P_o | | 240 | mW |

15.3.2.2 Signal circuit (Sig and GND, terminals 4 and 1 or yellow & green wires)

| | | | | |
|---------|-------|----|------|----|
| Voltage | U_o | DC | 3.78 | V |
| Current | I_o | | 191 | mA |
| Power | P_o | | 180 | mW |

15.3.2.3 Supply and signal circuits interconnected

| | | | | |
|---------|-------|----|------|----|
| Voltage | U_o | DC | 5.36 | V |
| Current | I_o | | 347 | mA |
| Power | P_o | | 464 | mW |

15.3.2.4 The least favourable values of U_o and I_o result in the following parameters:

| | | | | |
|---------------------------|-------|--|-----|---------|
| Max. external capacitance | C_o | | 100 | μ F |
| Max. external inductance | L_o | | 400 | μ H |

15.3.3 Ambient temperature range

| | |
|-------|------------------|
| T_a | -20 °C to +60 °C |
|-------|------------------|

(16) Test and assessment report

BVS PP 14.2135 EG, as of 13.06.2014



(17) Special conditions for safe use

- 17.1 The circuits of the electronic unit are earthed by the assembly (fastened to the hat rail). At the point of installation a connecting element must be provided for an earth wire. This connecting element must allow for a proper connection of a cable with a cross section of minimum 4 mm².
- 17.2 Along the external intrinsically safe circuits equipotential bonding must be provided.

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
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BVS-Schu/Ar E 3839/14

Certification body

Special services unit