Safety instructions ÜSB62-36G.C_*, ÜSB62-30W.C_*

TÜV 07 ATEX 553276

II (1) 2G Ex [ia Ga] IIC T6 Gb

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Contents

Supplementary documentation:

- Operating instructions overvoltage arrester
- EG type approval certificate TÜV 07 ATEX 553276 (Document ID: 39881)

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DE	Sicherheitshinweise für den Einsatz in explosionsgefährdeten Bereichen
EN	Safety instructions for the use in hazardous areas
FR	Consignes de sécurité pour une application en atmosphères explosibles
IT	Normative di sicurezza per l'impiego in luoghi con pericolo di esplosione
ES	Instrucciones de seguridad para el empleo en áreas con riesgo de explosión
PT	Normas de segurança para utilização em zonas sujeitas a explosão
NL	Veiligheidsaanwijzingen voor gebruik op plaatsen waar ontploffingsgevaar kan heersen
SV	Säkerhetsanvisningar för användning i explosiionsfarliga områden
DA	Sikkerhedsforskrifter til anvendelse i explosionsfarlig atmosfare
FI	Turvallisuusohjeet räjähdysvaarallisisssa tiloissa käyttöä varten
EL	Υποδείξεις ασΦαλείας για τη χρησιμοποίηση σε περιοχές που υπάρχει κίνδυνος έκρηξης

DE	Die vorliegenden Sicherheitshinweise sind im Download unter www.vega.com standardmäßig in den Sprachen deutsch, englisch, französisch und spanisch verfügbar. Weitere EU-Landessprachen stellt VEGA nach Anforderungen zur Verfügung.
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1 Area of applicability

These safety instructions apply to the overvoltage arresters B62-36G, B62-30W type ÜSB62-36G.C_*, ÜSB62-30W.C_* according to EG type approval certificate TÜV 07 ATEX 553276 (certificate number on the type label) and for all instruments with the number of the safety instruction (39880) on the type label.

2 General information

The overvoltage arresters B62-36G, B62-30W of type series ÜSB62-36G.C_*, ÜSB62-30W.C_* are used as overvoltage protection of intrinsically safe circuits in protection class ia of category 1G or overvoltage protection of intrinsically safe circuits in protection class ia/ib of category 2G.

The overvoltage arresters B62-36G, B62-30W for intrinsically safe circuits in protection classification ia of category 1G meet the requirements for overvoltage arresters according to IEC 60079-14, sect. 12.3, as suitable protection against the danger of ignition caused by lightning.

The overvoltage arresters B62-36G, B62-30W are intrinsically safe electrical devices for installation in hazardous areas with combustible gases, mist or vapours or for installation outside of hazardous areas.

The overvoltage arresters B62-36G, B62-30W are intrinsically safe electrical instruments for mounting in hazardous areas of all combustible materials of explosion group IIA, IIB and IIC requiring instruments of category 2G.

The overvoltage arrester B62-36G is suitable for protection of signal circuits of two-wire, loop powered sensors. The overvoltage arrester B62-30W is suitable for protection of electrical BUS signals according to the Fieldbus system Profibus PA or Foundation Fieldbus.

If the overvoltage arresters B62-36G, B62-30W are used for protection of intrinsically safe signal circuits, then the general installation regulations for explosion protection, EN 60079-14, as well as these safety instructions and the operating instructions manual must be observed.

The installation of explosion-endangered systems must always be carried out by qualified personnel.

3 Electrical data

The protection class of the overvoltage arresters B62-36G, B62-30W corresponds to the respective protection class of the connected intrinsically safe signal circuit. When connecting an intrinsically safe signal circuit with protection class ia of category 1G, the protection class of the signal circuit also corresponds to the protection class ia of category 1G. When connecting an intrinsically safe signal circuit with protection class ia or ib of category 2G, the protection class of the signal circuit also corresponds to protection class ia or ib of category 2G.

Overvoltage arrester B62-36G

Signal circuit: (Input terminals E1, E2, output terminals A1, A2)	In ignition protection type intrinsic safety Ex ia IIC/IIB or Ex ib IIC/IIB For connection to an intrinsically safe circuit. Maximum values: ● Ui = 36 V ● Ii = 450 mA ● C^i = 2.5 nF ● L^i = 0.15 mH

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Overvoltage arrester B62-30W	
Signal circuit: (Input terminals E1, E2, output terminals A1, A2)	In ignition protection type intrinsic safety Ex ia IIC/IIB or Ex ib IIC/IIB For connection to an intrinsically safe circuit. Maximum values: • Ui = 36 V • Ii = 400 mA • C^i = 2.5 nF • L^i = negligibly small

The insulation voltage of the intrinsically safe signal circuit to parts which can be grounded, is > 500 V AC. Thus, the intrinsically safe signal circuit is classified as ungrounded.

The supply voltage U_i of the overvoltage arrester ÜSB62-36G.C_*, ÜSB62-30W.C_* must not exceed 30 V DC so that the intrinsic safety is still ensured after assembly with a VEGA sensor (VEGAPULS, VEGABAR, VEGAFLEX, VEGADIF 85) or with the VEGA display (VEGADIS 82).

4 Application conditions

Permissible ambient temperatures depending on temperature class

Overvoltage arrester B62-36G

Temperature class	T6	T5, T4, T3, T2, T1
Permissible ambient temperature	-40 … +60 °C	-40 … +80 °C

Overvoltage arrester B62-30W

Temperature class	T6	T5, T4, T3, T2, T1
Permissible ambient temperature	-40 … +53 °C	-40 … +80 °C

5 Protection rating

Protection class: IP30

If the overvoltage arresters B62-36G, B62-30W are mounted in the metal or plastic housing, at least protection class IP54 according to EN 60529 is met.

6 Installation

The overvoltage arresters B62-36G, B62-30W are suitable for installation in hazardous areas of category 2G or for installation outside of hazardous areas.

Please make sure that the overvoltage arresters B62-36G, B62-30W are only installed in areas allowing protection class IP30 or mounted in a housing with protection class IP54.

When connecting an intrinsically safe instrument to an non-intrinsically safe circuit, the instrument must be no longer used in intrinsically safe circuits.

7 Grounding

The potential equalisation terminal of the overvoltage arresters B62-36G, B62-30W must be connected with the potential equalisation system in the Ex area.

8 Insulation voltage to earth

The intrinsically safe circuits of the overvoltage arresters B62-36G, B62-30W are galvanically isolated from the potential equalisation terminal with ≥500 V AC.

9 Electrostatic charging (ESD)

In case of instrument versions with electrostatically chargeable plastic parts, the danger of electrostatic charging and discharging must be taken into account!

The following parts can charge and discharge:

- Lacquered housing version or alternative special lacquering
- Plastic housing, plastic housing parts
- Metal housing with inspection window
- Plastic process fittings
- Plastic-coated process fittings and/or plastic-coated sensors
- Connection cable for separate versions
- Type label
- Isolated metallic labels (measuring point identification plate)

Take note in case of danger of electrostatic charges:

- Avoid friction on the surfaces
- Do not dry clean the surfaces

The instruments must be mounted/installed in such a way that the following can be ruled out:

- electrostatic charges during operation, maintenance and cleaning.
- process-related electrostatic charges, e.g. by measuring media flowing past

The warning label indicates danger:

WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTIONS

Printing date:

All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.
Subject to change without prior notice

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