Safety instructions
VEGATOR 131, 132

Appropriate instruments
TÜV 16 ATEX 179411
Zone 2
TÜV 16 ATEX 179410 X

CE 0044

Document ID: 53596

VEGA

Contents

Please note:

These safety instructions are part of the following documentation:

- 46836 - VEGATOR 131
- 46837 - VEGATOR 132
- 53597 - EU type approval certificate TÜV 16 ATEX 179411
- 53600 - Conformity statement TÜV 16 ATEX 179410 X

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DE	Sicherheitshinweise für den Einsatz in explosionsgefährdeten Bereichen, verfügbar in den Sprachen deutsch, englisch, französisch und spanisch.
EN	Safety instructions for the use in hazardous areas are available in German, English, French and Spanish language.
FR	Consignes de sécurité pour l'utilisation en atmosphère explosible, disponibles dans les langues allemande, anglaise, française et espagnole.
ES	Instrucciones de seguridad para el empleo en áreas con riesgo de explosión, disponible en los siguientes idiomas alemán, ingles, francés y español.
CZ	Pokud nastanou potíže při čtení bezpečnostních upozornění v otištěných jazycích, poskytneme. Vám na základě žádosti k dispozici kopii v jazyce Vaší země.
DA	Hvis De har svært ved at forstå sikkerhedsforskrifterne på de trykte sprog, kan. De få en kopi på Deres sprog, hvis De ønsker det.
EL	Εάν δυσκολεύεστε να διαβάσετε τις υποδείξεις ασφαλείας στις γλώσσες που ήδη έχουν τυπωθεί, τότε σε περίπτωση ζήτησης μπορούμε να θέσουμε στη διάθεσή σας ένα αντίγραφο αυτών στη γλώσσα της χώρας σας.
ET	Kui teil on raskusi trükitud keeltes ohutusnõuete lugemisega, siis saadame me teie järelepärimise peale nende koopia teie riigi keeles.
FI	Laitteen mukana on erikielisiä turvallisuusohjeita. Voit tilata meiltä äidinkieliset turvallisuusohjeet, jos et selviä mukana olevilla kielillä.
HU	Ha a biztonági előírásokat a kinyomtatott nyelveken nem tudja megfelelően elolvasni, akkor lépjen velünk kapcsolatba: azonnal a rendelkezésére bocsátunk egy példányt az Ön országában használt nyelven.
IT	Se le Normative di sicurezza sono stampate in una lingua di difficile comprensione, potete richiederne una copia nella lingua del vostro paese.
LT	Jei Jums sunku suprasti saugos nuorodų tekstą pateiktomis kalbomis, kreipkitės į mus ir mes Jums duosime kopiją Jūsų šalies kalba.
LV	Ja Jums ir problēmas drošības noteikumus lasīt nodrukātajās valodās, tad mēs Jums sniegsim pēc pieprasījuma kopiju Jūsu valsts valodā.
MT	F'kaz li jkollok xi diffikulta` biex tifhem listruzzjonijiet ta' sigurta`kif ipprovduti, infurmana u ahna nibghatulek kopja billingwa tieghek.
NL	Als u moeilijkheden mocht hebben met het lezen van de veiligheidsinstructies in de afgedrukte talen, sturen wij u op aanvraag graag een kopie toe in uw eigen taal.
PL	W przypadku trudności odczytania przepisów bezpieczeństwa pracy w wydrukowanych językach, chętnie udostępnimy Państwu kopię w języku obowiązującym w danym kraju.
PT	Caso tenha dificuldade de ler as instruções de segurança no idioma, no elas foram impressas, poderá solicitar junto a nós uma cópia em seu idioma.
SK	Pokiaľ nastanú problémy pri čítaní bezpečnostných pokynov vo vydaných jazykoch, poskytneme Vám na základe žiadosti k dispozícii kópiu v jazyku Vašej krajiny.
SL	Kadar se pojavijo težave pri branju varnostnih navodil v izdanih jezikih, vam bomo na osnovi zahtevka dali na razpolago kopijo v jeziku vaše države.
SV	Om du har problem att läsa säkerhetsanvisningarna på de här tryckta språken, ställer vi gärna på begäran en kopia på ditt språk till förfogande.

1 Area of applicability

These safety instructions apply for the conductive controllers VEGATOR 131**S/X****, 132 according to EU type approval certificate TÜV 16 ATEX 179411 (certificate number on the type label) and conformity statement TÜV 16 ATEX 179410 X (certificate number on the type label) and for all instruments with the number of the safety instructions (53596) on the type label.

Object and type

Single channel controllers VEGATOR 131.*******

Scope
A Europe
I Worldwide
Approval
X for Ex-free area
M Ship approval (DNV GL, LR)
A ATEX II 3G Ex ec nC ic IIC T4 Gc + II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I
C ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I
U ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I + WHG
O ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I + Ship approval (DNV GL, LR)
A IEC Ex ec nC ic IIC T4 Gc + [Ex ia Ga/Da] IIC/IIIC, [Ex ia Ma] I
C IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I
U IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I + WHG
O IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I + Schiffzulassung (DNV GL, LR)
Version
X Double channel for conductive probes
S Single channel for conductive probes with fail safe relay
SIL qualification
X without
S with, incl. Safety Manual
Housing / Protection
K Plastic / IP20
Terminal blocks / Connection
X 2.5mm² detachable terminal blocks 1x black / 2x black
B 2.5mm² detachable terminal blocks 1x blue / 2x black
Certificates
X no
M yes, further add. prices possible

Double channel controllers VEGATOR 132.*****

Scope
A Europe
I Worldwide
Approval
X for Ex-free area
M Ship approval (DNV GL, LR)
A ATEX II 3G Ex ec nC ic IIC T4 Gc + II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I
C ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I
U ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I + WHG
O ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I + Ship approval (DNV GL, LR)
A IEC Ex ec nC ic IIC T4 Gc + [Ex ia Ga/Da] IIC/IIIC, [Ex ia Ma] I
C IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I
U IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I + WHG
O IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I + Schiffzulassung (DNV GL, LR)
Version
X Double-channel (8/16mA) for level detection
SIL qualification
X without
S with, incl. Safety Manual
Housing / Protection
K Plastic / IP20
Terminal blocks / Connection
X 2.5mm² detachable terminal blocks 2x black / 2x black
B 2.5mm² detachable terminal blocks 2x blue / 2x black
Certificates
X no
M yes, further add. prices possible

2 General information

The conductive controllers VEGATOR 131**S/X****, 132 are used for intrinsically safe power supply of two-wire transmitters, the reliable galvanic separation from all other circuits and the processing of analoguously transmitted measured data. The controllers VEGATOR 131**S/X****, 132 depending on limit values are used for generation of binary output signals on the floating, non-contact relay output.

The VEGATOR 131**S/X****, 132 are single or double channel controllers for conductive probes type EL. Applications are level detections and pump controls. In conjunction with multiple rod or cable probes, several VEGATOR 131/132 can be combined with a probe.

Controllers VEGATOR 131**S/X****, 132 must be mounted and operated outside hazardous areas and inside hazardous areas zone 2.

The operating instructions as well as the installation regulations or standards that apply for explosion protection of electrical systems must generally be observed.

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

Type of protection marking
II (1) G [Ex ia Ga] IIC, II (1) D [Ex ia Da] IIIC, I(M1) [Ex ia Ma] I

II 3G Ex ec nC ic IIC T4 Gc

3 Technical data

The VEGATOR 131**S/X****, 132 include non-intrinsically safe circuits and one intrinsically safe circuit.

Non-intrinsically safe circuits

Voltage supply: (connections KL16/17)	U = 24 … 230 V AC (-15 … +10 %)
	U = 24 … 65 V DC (-15 … +10 %)
	U_m = 253 V AC
Relay outputs: (KL10/11/12, 13/14/15)	Maximum values:
	253 V AC, 3 A
	50 V DC, 1 A

Intrinsically safe circuit

Signal circuit: (connections KL1/2/3, 4/5)

In type of protection intrinsic safety Ex ia IIC, IIB, I

Max. total values for both circuits:

$U_o \leq 12.6$ V

$I_o \leq 7.7$ mA

$P_o \leq 24.3$ mW

Characteristics: linear

The effective internal inductance L_i and capacity C_i are negligibly small.

The max. values of the table can also be used as concentrated capacitances and concentrated inductances.

The values for IIC and IIB are also permitted for explosive dust atmosheres.

Ex ia	IIC	IIB	I
Max. permissible outer inductance L_o (total values for both circuits)	1 mH	5 mH	10 mH
Max. permissible outer capacitance C_o (total values for both circuits)	0.730 µF	2.7 µF	4.3 µF

Application conditions
Permissible ambient temperatures

The permissible ambient temperature range at the installation location of an instrument	-20 … +60 °C (-4 … +140 °F)

4 Installation

Controllers VEGATOR 131**S/X****, 132 must be mounted and operated outside hazardous areas and inside hazardous areas zone 2. The protection rating of VEGATOR 131**S/X****, 132 corresponds to IP20.

If the controllers VEGATOR 131**S/X****, 132 are not set up in dry and clean environments, they must be mounted in a housing with the required protection rating.

With zone 2 applications, the following special conditions must be noted:

According to IEC 60079-7, paragraph 4.10.1 and paragraph 4.2.2.1 the following applies for this instrument:

The instrument must be installed in a housing tested according to IEC 60079-0 meeting the require-

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ments of protection rating IP54.

The pollution degree of the area where the instrument is used must not exceed 2.

With zone 2 applications, the torque of the terminals should be between 0.4 Nm and 0.5 Nm.

The terminal is suitable for rigid cables with wire cross-section 0.2 to 2.5 mm^2 and for flexible cables with end sleeve with wire cross-section from 0.25 to 2.5 mm^2

Max. two cables per connection with the same cross-section are permitted.

If the intrinsically safe circuit is led into dust-explosive areas of zone 20 or 21, please make sure that the instruments connected to these circuits meet the requirements of category 1D or 2D and are certified respectively.

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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