

# Safety instructions CCOE approval VEGATOR 121, 122

Associated apparatus  
Installation in non-Ex area



Document ID: 62334



# VEGA

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Supplementary documentation:

- Operating Instructions VEGATOR 121, 122
- Letter P452127 By Government of India (Document ID: 62335)

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## 1 Area of applicability

These safety instructions apply to the controllers VEGATOR TOR121.DC/OX/S\*\*\*\*, TOR 122.DC/OX\*\*\*\* according to the Letter P452127 By Government of India (certificate number on the type label) and to all instruments with the number of the safety instruction (62334) on the type label.

## 2 General information

The controllers VEGATOR TOR121.DC/OX/S\*\*\*\*, TOR 122.DC/OX\*\*\*\* are used for intrinsically safe power supply of two-wire transmitters, the reliable galvanic separation from all other circuits and the processing of analogously transmitted measured data. The controllers VEGATOR TOR121.DC/OX/S\*\*\*\*, TOR 122.DC/OX\*\*\*\* depending on limit values are used for generation of binary output signals on the floating, non-contact relay output.

The controllers VEGATOR TOR121.DC/OX/S\*\*\*\*, TOR 122.DC/OX\*\*\*\* work in conjunction with 8/16 mA (current jump signal) limit switches and are mainly used for level detection or pump control for VEGASWING, VEGAVIB and VEGAWAVE vibrating level switches with electronics version "Two-wire". Hence simple control tasks can be solved.

Typical applications are monitoring functions such as overflow and dry run protections. The 8 mA/16 mA input signals and relay outputs or used for control and monitoring of levels. The single channel controllers VEGATOR TOR121 (with additional fail safe relay in the output) are for connection of a current jump signal (8 mA/16 mA) sensor and the double channel controller VEGATOR TOR122 for connection of two current jump signal (8 mA/16 mA) sensors.

Controllers VEGATOR TOR121.DC/OX/S\*\*\*\*, TOR 122.DC/OX\*\*\*\* must be mounted and operated outside hazardous areas.

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:

[Ex ia Ga] IIC

## 3 Technical data

The VEGATOR TOR121.DC/OX/S\*\*\*\*, TOR 122.DC/OX\*\*\*\* include non-intrinsically safe circuits and one intrinsically safe circuit.

### Non-intrinsically safe circuits

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Voltage supply: (connections 16/17)	U = 24 ... 230 V AC (-15 ... +10 %) U = 24 ... 65 V DC (-15 ... +10 %) U <sub>m</sub> = 253 V
Relay outputs: (10/11/12, 13/14/15)	Maximum values: 253 V AC, 3 A 50 V DC, 1 A

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## Intrinsically safe circuit

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Signal circuit: (connections 1/2, 4/5)

Type of protection intrinsic safety Ex ia IIC, IIB, I

Maximum values:

$$U_o \leq 22.4 \text{ V}$$

$$I_o \leq 113.5 \text{ mA}$$

$$P_o \leq 636 \text{ mW}$$

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 atmospheres.

Ex ia	IIC	IIB	I
Max. permissible external inductance $L_o$	0.5 mH	10 mH	10 mH
Max. permissible external capacitance $C_o$	0.095 $\mu$ F	0.55 $\mu$ F	1.2 $\mu$ F

### Application conditions

#### Permissible ambient temperatures

Permissible ambient temperature at the installation location of an instrument -20 ... +60 °C (-4 ... +140 °F)

## 4 Installation

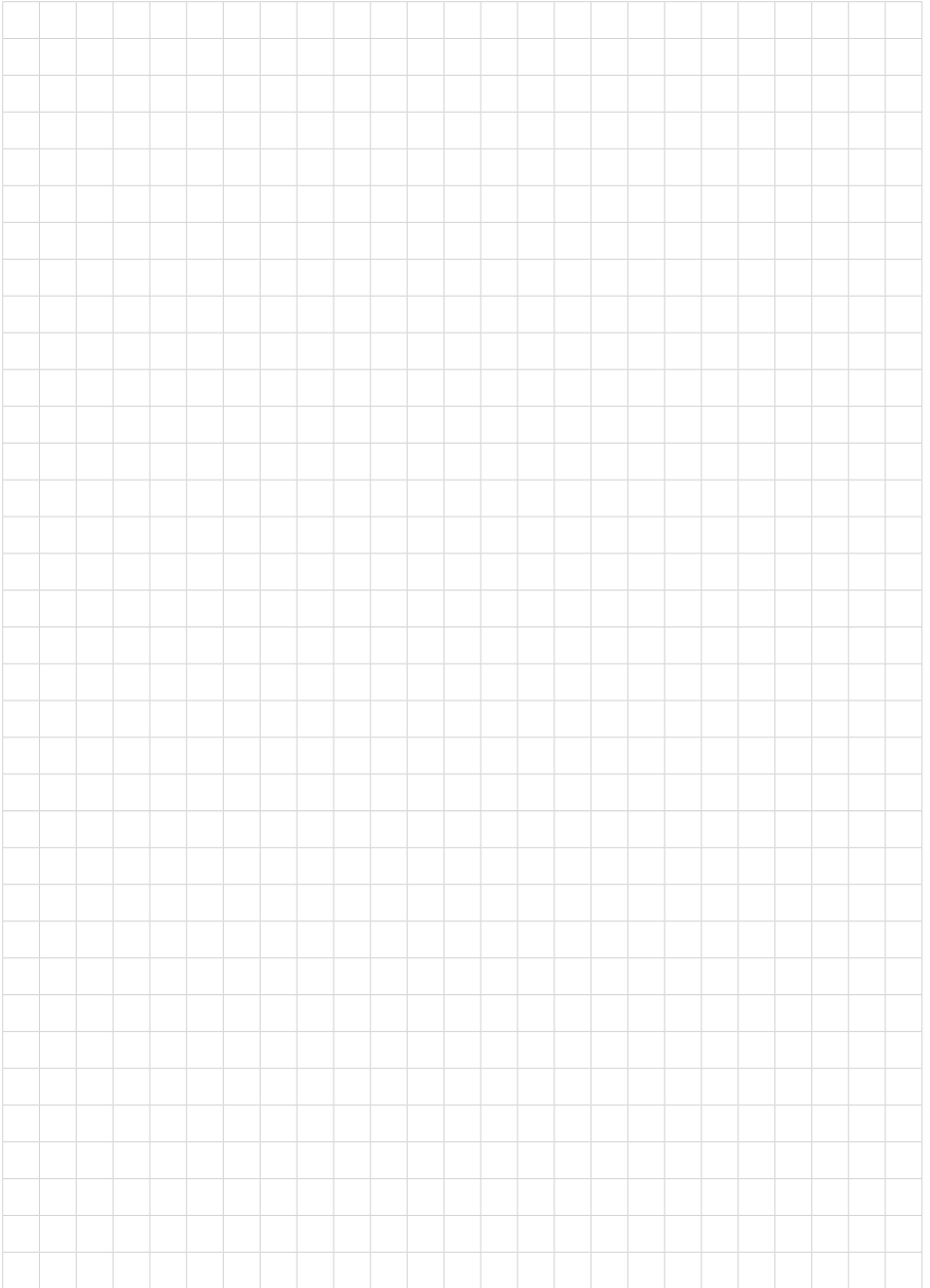
Controllers VEGATOR TOR121.DC/OX/S\*\*\*\*, TOR 122.DC/OX\*\*\*\* must be mounted and operated outside hazardous areas. The protection rating of VEGATOR TOR121.DC/OX/S\*\*\*\*, TOR 122.DC/OX\*\*\*\* corresponds to IP 20.

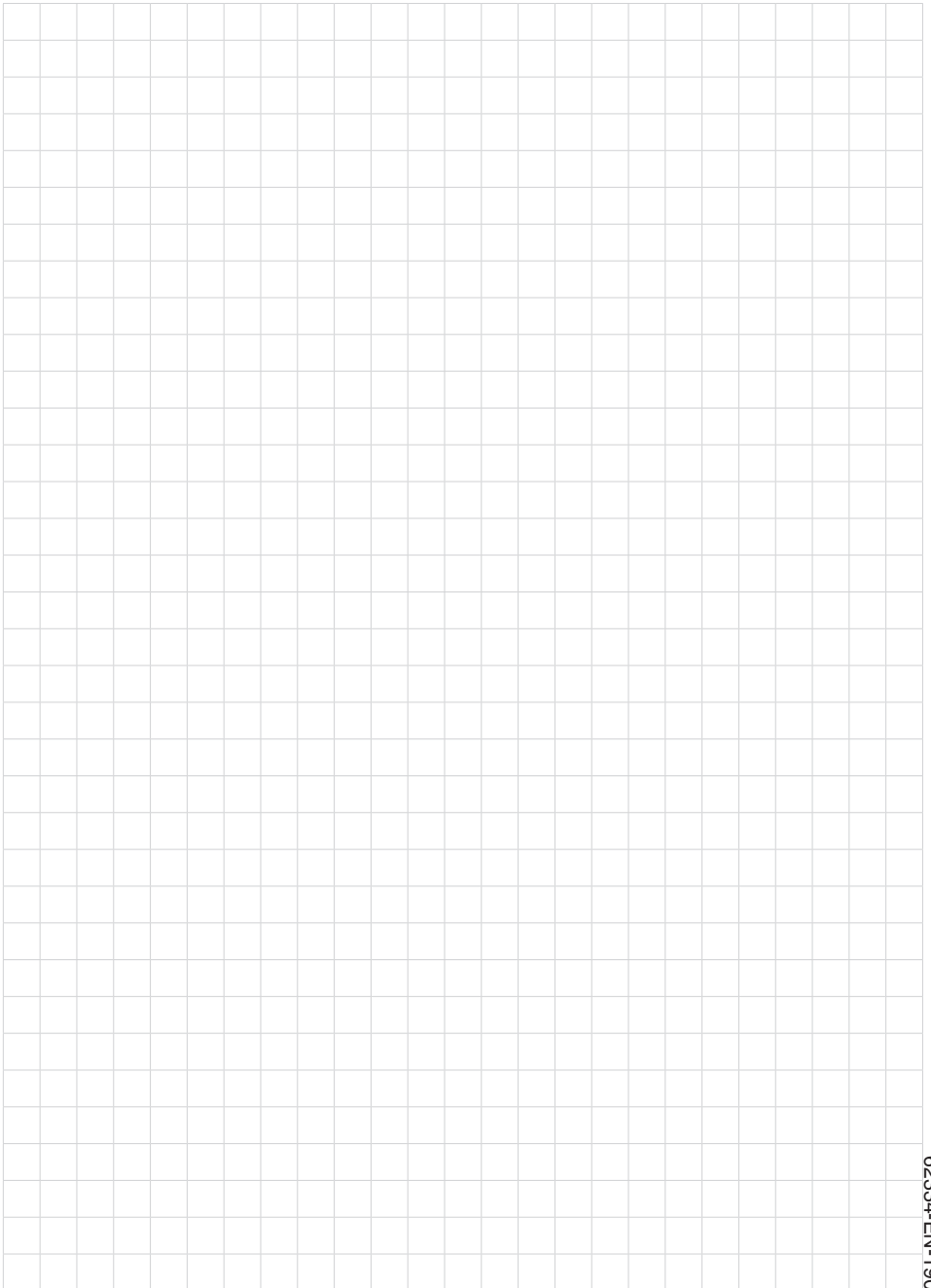
If the Controllers VEGATOR TOR121.DC/OX/S\*\*\*\*, TOR 122.DC/OX\*\*\*\* are not set up in dry and clean environments, they must be mounted in a housing with the required protection rating.

## Confirmation

Hereby the company VEGA Grieshaber KG declares that the approved CCOE devices have been manufactured in accordance with the IECEx approval mentioned in the attached CCOE certificate.

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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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