**Features**

- Output 0/4 mA ... 20 mA or 0/2 V ... 10 V, 2 trip amplifiers
- Galvanic isolation between input, output, power supply and contact output
- Configuration and commissioning with configuration software

**Function**

The device can be used for converting frequency to current and for galvanic isolation of the frequency signal from hazardous area to safe area. In additional use of the 2nd input the rotating direction can be analyzed.

**Connection**
Technical data

Supply

<table>
<thead>
<tr>
<th>Connection</th>
<th>dz2+, dz4-, dz6 (PE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>20 ... 30 V DC</td>
</tr>
<tr>
<td></td>
<td>20.4 ... 24.6 V AC</td>
</tr>
</tbody>
</table>

Input

<table>
<thead>
<tr>
<th>Connection</th>
<th>Input I NAMUR: dz28+, dz32-, VORTEX: dz28+, dz30, dz32-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input II NAMUR: b28+, dz32- (rotating direction detection)</td>
<td></td>
</tr>
<tr>
<td>Input frequency</td>
<td>0 ... 10 kHz</td>
</tr>
</tbody>
</table>

Output

<table>
<thead>
<tr>
<th>Transistor</th>
<th>30 V/50 mA short-circuit proof, 2 kHz max., mono stable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection</td>
<td>dz18+, dz20, dz22-</td>
</tr>
<tr>
<td>Switching voltage</td>
<td>30 V/50 mA , short-circuit protected</td>
</tr>
<tr>
<td>Output frequency</td>
<td>2 kHz max., mono stable</td>
</tr>
<tr>
<td>Output II Analog output</td>
<td></td>
</tr>
<tr>
<td>Connection</td>
<td>dz16-, dz14+</td>
</tr>
<tr>
<td>Voltage output range</td>
<td>0/4 ... 20 mA</td>
</tr>
<tr>
<td></td>
<td>(0/2 ... 10 V)</td>
</tr>
</tbody>
</table>

Indicators/settings

Display elements

LED green: Power on

Directive conformity

Electromagnetic compatibility

Directive 2004/108/EC

The device has been used for the same applications for several years. It therefore features an appropriate electromagnetic field immunity. The device must not be used in new plants.

Conformity

Electrical isolation EN 50178

Protection degree IEC 60529

Ambient conditions

Ambient temperature

-20 ... 60 °C (-4 ... 140 °F)

Storage temperature

-40 ... 80 °C (-40 ... 176 °F)

Relative humidity

< 75 % (annual mean)

< 95 % (30 d/year), no moisture condensation

Mechanical specifications

Protection degree IP20 (installed in 19” rack)

Connection plug connector acc. to DIN 41612, 32-pin, type F, rows d and z provided

Mass approx. 250 g

Dimensions 22 x 143 x 193 mm (0.9 x 5.6 x 7.6 in)

Construction type Eurocard 100 x 160 mm (3.9 x 6.3 in) acc. to DIN 41494, front panel 4TE, mountable in 19” rack

Coding 02/05/12 (see “Notes”)

Data for application in connection with Ex-areas

EC-Type Examination Certificate TÜV 00 ATEX 1614 X

Group, category, type of protection

II (1)GD [EEx ia] IIC

Voltage $U_o$

NAMUR 8.6 V

VORTEX 26.3 V

Current $I_o$

NAMUR 19 mA

VORTEX 93 mA

Power $P_o$

NAMUR 40 mW

VORTEX 610 mW

Internal capacitance $C_i$

NAMUR 5 nF

VORTEX 3 nF

General information

Supplementary information EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

Ordering information

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
<th>Imp. Output</th>
<th>Ex protection</th>
<th>Model number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAMUR</td>
<td></td>
<td>1:1 impulses</td>
<td>ia/ib</td>
<td>GHG 121 2101 C2006</td>
</tr>
<tr>
<td>VORTEX</td>
<td></td>
<td>1:1 impulses</td>
<td>ia/ib</td>
<td>GHG 121 2151 C2006</td>
</tr>
<tr>
<td>NAMUR</td>
<td>0/4 ... 20 mA</td>
<td>1:1 impulses*</td>
<td>ia/ib</td>
<td>GHG 121 2101 C1006</td>
</tr>
<tr>
<td>VORTEX</td>
<td>0/4 ... 20 mA</td>
<td>1:1 impulses*</td>
<td>ia/ib</td>
<td>GHG 121 2151 C1006</td>
</tr>
</tbody>
</table>

*Pulse output switchable between trip value, rotating direction, lead monitoring