

VEGATOR 121

Single channel signal conditioning instrument for level detection for 8/16 mA sensors



Application area

The VEGATOR 121 is a signal conditioning instrument for point level detection with the vibrating level switches VEGASWING, VEGAVID and VEGAWAVE with electronics version "Two-wire 8/16 mA". Simple control functions can be realised with this combination. Typical applications are monitoring functions such as overflow or dry run protection. A fault signal output is available as an option.

Your benefit

- Comprehensive monitoring detects shortcircuit and measuring line break as well as malfunctions in the sensor
- Simple and convenient function test through test key (also for SIL and WRA)
- Simple mounting through carrier rail as well as detachable, coded terminals

Function

The VEGATOR 121 is a single channel instrument and is mainly used for point level detection, for example in conjunction with vibrating level switches. It transmits a binary signal from the field. The signal can also come from a hazardous area. Level switches with 8/16 mA step signal can be connected to it. The signal circuit is monitored for line break and shortcircuit. An operating relay (output) is available as limit value signal-ler for control tasks. Beside the fault indication, an active fault signal via relay is available as an option.

Technical data

General data

Series Module unit for mounting on carrier rails
35 x 7.5 acc. to EN 50022/60715

Connection terminals

- Type of terminal Screw terminal
- Wire cross-section 0.25 mm² (AWG 23) ... 2.5 mm² (AWG 12)

Voltage supply

Operating voltage

- Nominal voltage AC 24 ... 230 V (-15 %, +10 %) 50/60 Hz
- Nominal voltage DC 24 ... 65 V DC (-15 %, +10 %)

Max. power consumption 3 W (8 VA)

Sensor input

Quantity 1 x analogue
Input type Active (sensor power supply by VEGATOR 121)

Measured value transmission Analogue 8/16 mA

Switching threshold

- On 12.1 mA
- Off 11.9 mA
- Tolerance ± 500 µA

Current limitation 23 mA (permanently short-circuit proof)

Terminal voltage (idle state) 18.2 V DC, ± 5 %

Internal resistance 200 Ω, ± 1 %

Detection line break ≤ 3.6 mA

Detection shortcircuit ≥ 21 mA

Relay output

Quantity 1 x operating relay, 1 x fail safe relay (optional)

Contact Floating spdt

Switching voltage min. 10 mV DC, max. 253 V AC/50 V DC

Switching current min. 10 µA DC, max. 3 A AC, 1 A DC

Breaking capacity min. 50 mW, max. 500 VA, max. 54 W DC

Switch-on/Switch-off delay

- Basic delay 150 ms, ± 10 %
- Adjustable delay 2/6/8 s, ± 20 %

Ambient conditions

Ambient temperature at the installation site of the instrument -20 ... +60 °C (-4 ... +140 °F)

Electrical protective measures

Protection rating IP 20

Overvoltage category (IEC 61010-1)

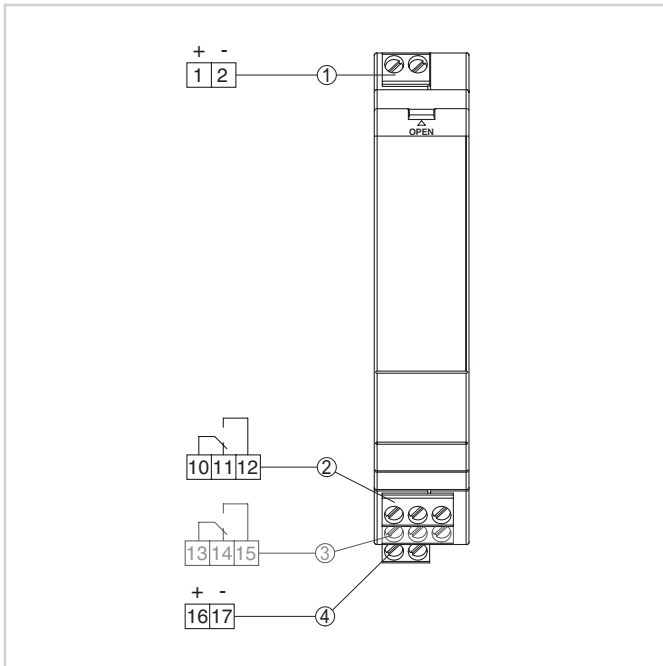
- up to 2000 m (6562 ft) II above sea level
- up to 5000 m (16404 ft) II - Only with connected overvoltage protection above sea level
- up to 5000 m (16404 ft) I above sea level

Degree of soiling 2

Approvals

You can find detailed information on the existing approvals in the "configurator" on our homepage at www.vega.com/configurator.

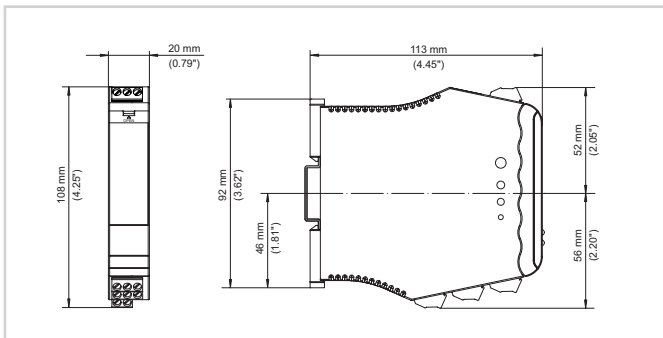
Electrical connection



- 1 Sensor circuit (8/16 mA)
- 2 Relay output
- 3 Fail safe relay (optional)
- 4 Voltage supply

You can find details on electrical connection in the instrument operating instructions on our homepage at www.vega.com/downloads.

Dimensions



Dimensions VEGATOR 121

Information

You can find further information on the VEGA product line on our homepage www.vega.com.

In the download section under www.vega.com you'll find free operating instructions, product information, brochures, approval documents, instrument drawings and much, much more.

Contact

You can find the VEGA agency serving your area on our homepage www.vega.com.