Specification sheet

# VEGATOR 121

## Single channel controller for level detection for 8/16 mA sensors

### Application area

The VEGATOR 121 is a controller for point level detection with the vibrating level switches VEGASWING, VEGAVIB 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 short-circuit and measuring line break as well as malfunctions in the sensor
- Simple and convenient function test via test key (also for SIL and WRA)
- Easy installation thanks to carrier rail mounting and 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 signaller for control tasks. Beside the fault indication, an active fault signal via relay is available as an option.

### Approvals

Worldwide approvals are available for VEGA instruments, e.g. for use in hazardous areas, on ships or in hygienic applications.

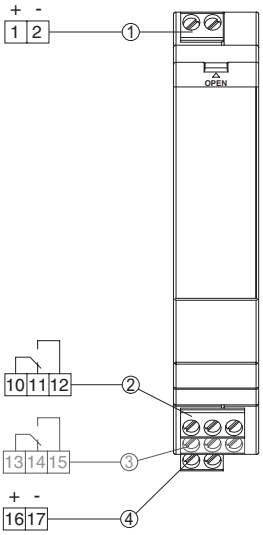
The technical data in the respective safety instructions are valid for approved instruments (e.g. with Ex approval). In some cases, these data can differ from the data listed herein.

You can find detailed information on the existing approvals with the appropriate product on our homepage.

### Technical data

| | |
|---|---|
| **General data** | |
| Series | Module unit for mounting on carrier rails 35 x 7.5 acc. to EN 50022/60715 |
| Connection terminals | |
| – Wire cross-section | 0.25 $mm^2$ (AWG 23) … 2.5 $mm^2$ (AWG 12) |
| **Voltage supply** | |
| Operating voltage | |
| – Nominal voltage AC | 24 … 230 V (-15 %, +10 %) 50/60 Hz |
| – Nominal voltage DC | 24 … 65 V (-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 |
| 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 operating/fail safe relay (optional) |
| Contact | Floating change-over contact (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, ± 20 % |
| – 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) | |
| Pollution degree | 2 |

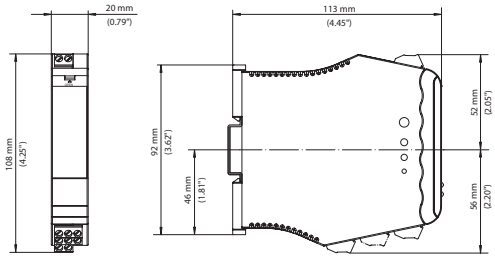
## Electrical connection




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.

In the download section of our homepage you'll find operating instructions, product information, industry brochures and approval documents as well as device and adjustment software.

## Contact

You can find your personal contact person at VEGA on our homepage under "*Contact*".

For more VEGA product please visit: www.ainstru.com
Mail: Sales@ainstru.com