

VEGATOR 141

Single channel controller for level detection for 4 ... 20 mA sensors



Application area

The VEGATOR 141 is a controller for level detection for sensors with analogue measured data transmission such as typically capacitive electrodes, hydrostatic pressure transmitters or process pressure transmitters. Simple monitoring and control functions can be realised. Typical applications are pump control (On/Off) and monitoring functions such as overflow and dry run protection.

Your benefit

- Compact separator with alarm function for limit level
- Comprehensive monitoring detects short-circuit and measuring line break as well as malfunctions in the sensor
- Simple mounting through carrier rail as well as detachable, coded terminals

Function

The VEGATOR 141 is a single channel limit level alarm and is mainly used for level detection in conjunction with analogue probes. The signal can also originate from the hazardous area. Standard sensors with 4 ... 20 mA can be connected. The signal circuit is permanently monitored on line break and short-circuit. An operating relay as limit level alarm for control tasks is available as output. Apart from the fault indication there is also an optional active fault signal via relay available.

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 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 (-15 %, +10 %)

Max. power consumption 2 W (8 VA)

Sensor input

Quantity 1 x 4 ... 20 mA

Type of input (selectable)

– Active input Sensor supply through VEGATOR 141
– Passive input Sensor has an own voltage supply

Measured value transmission

– 4 ... 20 mA analogue for 4 ... 20 mA sensors

Switching threshold

– Adjustable in the range 4 ... 20 mA

Current limitation 23 mA (permanently short-circuit proof)

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

Internal resistance

– Active input 200 Ω, ± 1 %
– Passive input 100 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)

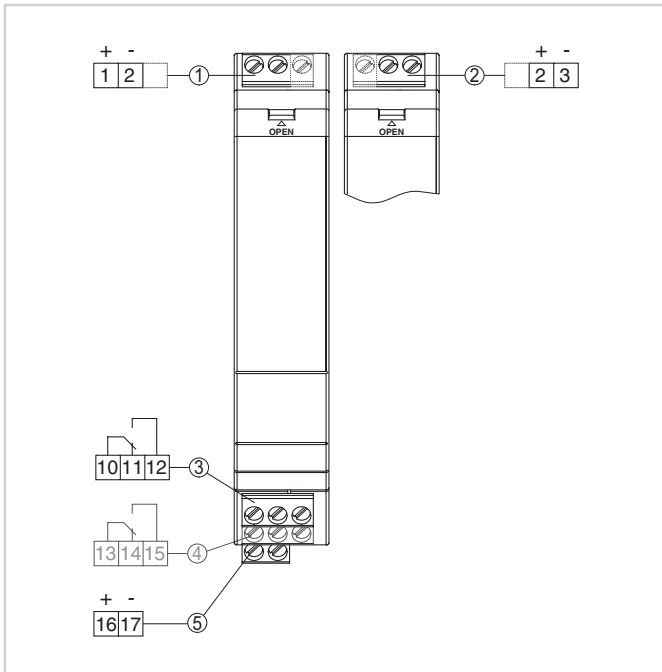
Electrical protective measures

Protection rating IP 20

Overvoltage category (IEC 61010-1)

Pollution degree 2

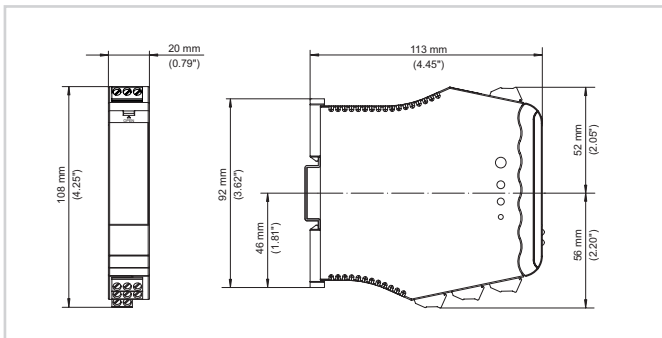
Electrical connection



- 1 Sensor circuit (4 ... 20 mA), active input
- 2 Sensor circuit (4 ... 20 mA), passive input
- 3 Relay output
- 4 Fail safe relay (optional)
- 5 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 141

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".