

## VEGATOR 142

### Double channel signal conditioning instrument for level detection for 4 ... 20 mA sensors



#### Application area

The VEGATOR 142 is a signal conditioning instrument 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 two-point control, pump control (On/Off) and monitoring functions such as overfill and dry run protection.

#### Your benefit

- Compact separator with alarm function for limit level
- Comprehensive monitoring detects shortcircuit 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 142 is a double 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 per channel as limit level alarm for control tasks is available as output.

#### 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 mm<sup>2</sup> (AWG 23) ... 2.5 mm<sup>2</sup> (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 2 x 4 ... 20 mA

###### Type of input (selectable)

- Active input Sensor supply through VEGATOR 142
- Passive input Sensor has an own power supply

###### Measured value transmission

- 4 ... 20 mA analogue for 4 ... 20 mA sensors

###### Switching threshold

- Adjustable in the range 4 ... 20 mA
- Hysteresis 100 µA

###### 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

2 x operating relay

###### 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

above sea level protection

– up to 5000 m (16404 ft) I

above sea level

Degree of soiling 2

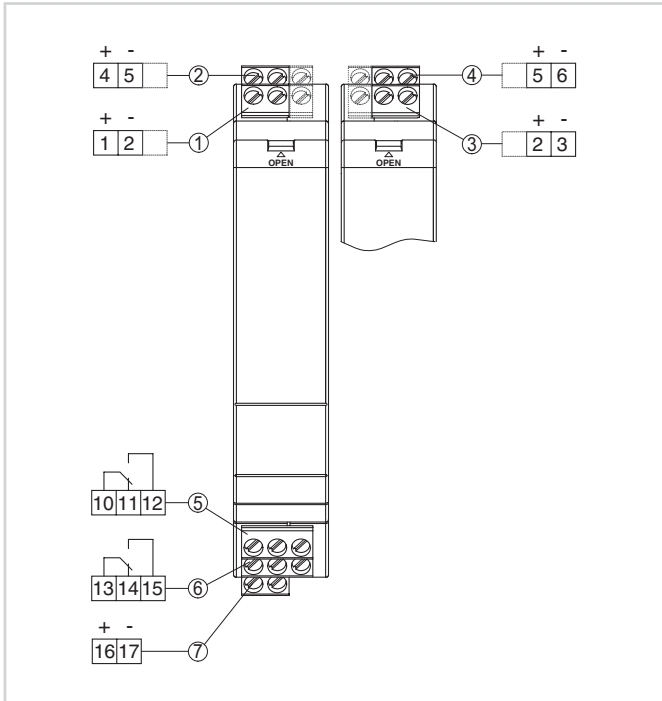
### Approvals

You can find detailed information on the existing approvals in the "configurator" on our homepage at [www.vega.com/configurator](http://www.vega.com/configurator).

### Contact

You can find the VEGA agency serving your area on our homepage [www.vega.com](http://www.vega.com).

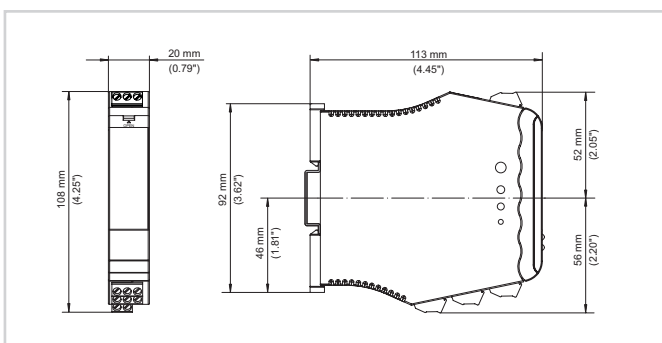
### Electrical connection



- 1 Sensor circuit, channel 1 (4 ... 20 mA), active input
- 2 Sensor circuit, channel 2 (4 ... 20 mA), active input
- 3 Sensor circuit, channel 1 (4 ... 20 mA), passive input
- 4 Sensor circuit, channel 2 (4 ... 20 mA), passive input
- 5 Relay output channel 1
- 6 Relay output channel 2
- 7 Voltage supply

You can find details on electrical connection in the instrument operating instructions on our homepage at [www.vega.com/downloads](http://www.vega.com/downloads).

### Dimensions



Dimensions VEGATOR 142

### Information

You can find further information on the VEGA product line on our homepage [www.vega.com](http://www.vega.com).

In the download section under [www.vega.com](http://www.vega.com) you'll find free operating instructions, product information, brochures, approval documents, instrument drawings and much, much more.