Specification sheet

VEGATOR 141

Single channel signal conditioning instrument for level detection for 4 … 20 mA sensors

Application area

The VEGATOR 141 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 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 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.

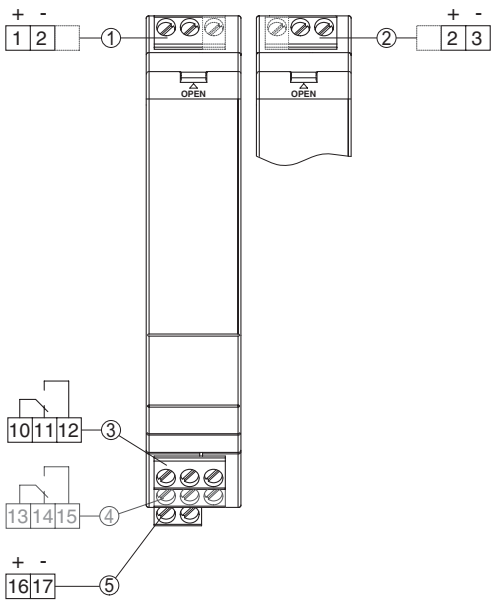
Technical data

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 AC (-15 %, +10 %), 50/60 Hz
– Nominal voltage DC	24 … 65 V DC (-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 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	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) above sea level	II
– up to 5000 m (16404 ft) above sea level	II - Only with connected overvoltage protection
– up to 5000 m (16404 ft) above sea level	I
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.

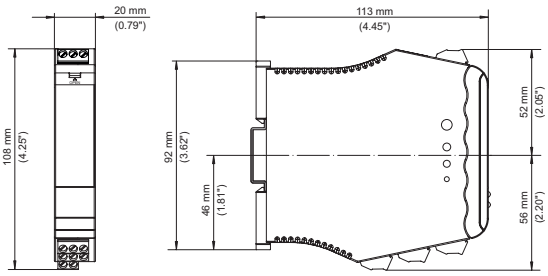
Electrical connection



1 *Sensor circuit (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 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.