

VEGAMET 391

Controller and display instrument for level sensors



Application area

The VEGAMET 391 controller powers the connected 4 ... 20 mA/HART sensor, processes and displays the measured values. The VEGAMET 391 is ideal for simple control tasks in level, gauge and process pressure measurement as well as inventory management (VMI) and remote enquiry. Comprehensive adjustment functions allow individual adaptations to the respective application. In water/wastewater management, the instrument stands out with special functions such as pump switching, flow volume measurement, tendency functions and totalizer.

Your benefit

- Equal use of all pumps through integrated pump management
- Completely integrated functional unit for flow volume measurement
- Simple integration into the Intranet/Extranet via integrated web server

Function

The VEGAMET 391 controller powers any individual 4 ... 20 mA/HART sensor and processes its measured value. Through an adjustment on VEGAMET, this measured value can be individually scaled/linearised and transferred to connected instruments via the current output. Six operating relays are available as limit alarms.

Optional interfaces offer the possibility of remote enquiry of measured values. With the built-in webserver, the measured values can be made available in a network.

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

Series	Instrument for mounting into front panel, switching cabinet or housing
Connection terminals	
– Type of terminal	Pluggable spring-loaded terminal with coding
– Max. wire cross-section	2.5 mm ² (AWG 14)
Operating voltage	
– Nominal voltage AC	24 ... 230 V (-15 %, +10 %) 50/60 Hz
– Nominal voltage DC	24 ... 65 V (-15 %, +10 %)
Max. power consumption	7 VA; 3 W

Sensor input

Number of sensors	1 x 4 ... 20 mA (HART)
Type of input (selectable)	
– Active input	Sensor supply through VEGAMET 391
– Passive input	Sensor has an own voltage supply
Measured value transmission (switchable with RS232/Ethernet interface option)	
– 4 ... 20 mA	analogue for 4 ... 20 mA sensors
– HART protocol	digital for HART sensors

Deviation

– Accuracy	±20 µA (0.1 % of 20 mA)
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Relay outputs

Quantity	6 x operating relay
Switching voltage	min. 10 mV DC, max. 250 V AC/60 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

Current output

Range	0/4 ... 20 mA, 20 ... 0/4 mA
Max. load	500 Ω

USB interface

Plug connection	Mini-B (4-pole)
USB specification	2.0 (Fullspeed)

Ethernet interface (optional)

Quantity	1 x, cannot be combined with RS232
Data transmission	10/100 MBit

RS232 interface (optional)

Quantity	1 x, cannot be combined with Ethernet
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Indicators

Measured value indication	
– Graphic-capable LC display, with lighting	65 x 32 mm, digital and quasianalogue display

LED displays

– Status, operating voltage	1 x LED green
– Status, fault signal	1 x LED red
– Status operating relay 1 ... 6	6 x LED yellow

Ambient conditions

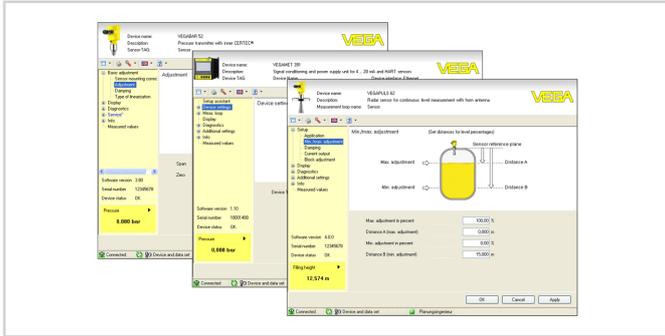
Ambient temperature	
– Instrument in general	-20 ... +60 °C (-4 ... +140 °F)

Electrical protective measures

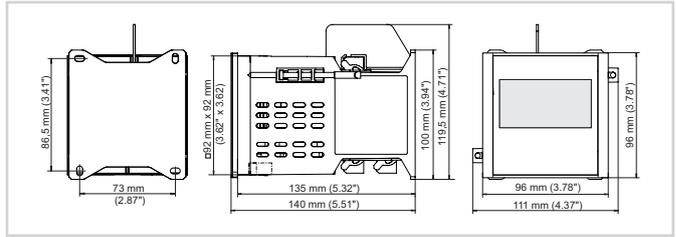
Protection rating	
– Front	IP65
– Instrument	IP20
Pollution degree	2

Adjustment

The adjustment of VEGAMET 391 is menu-driven via four keys in the front and a clear, graphic-capable LC display with background lighting. As an alternative, parameter adjustment of the instrument is also possible via the adjustment software PACTware and the respective DTM.



Dimensions



Information

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

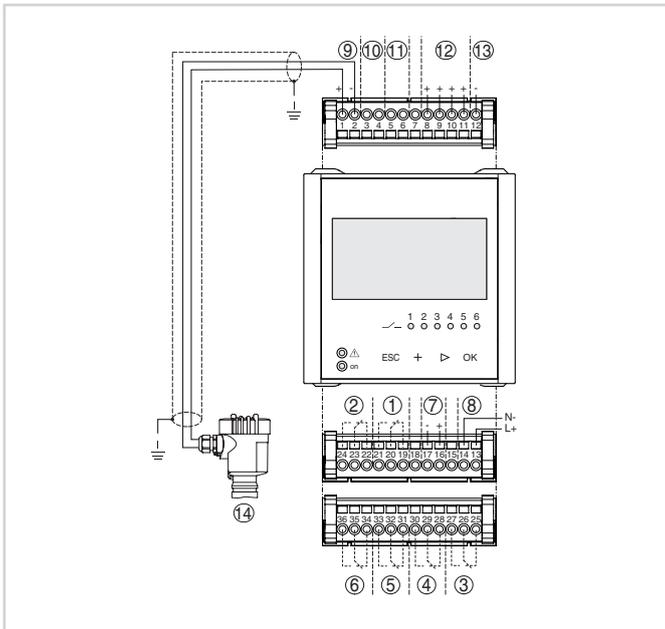
In the download section on our homepage you'll find operating instructions, product information, brochures, approval documents, instrument drawings and much, much more.

Software accessories such as the current device software and the appropriate operating software are also available there.

Contact

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

Electrical connection



Connection VEGAMET 391 with two-wire sensor

- 1 Internal relay 1
- 2 Internal relay 2
- 3 Internal relay 3
- 4 Internal relay 4
- 5 Internal relay 5
- 6 Internal relay 6
- 7 4 ... 20 mA current output
- 8 Voltage supply of VEGAMET 391
- 9 Measurement data input with sensor supply (active input)
- 10 Connection for VEGACONNECT for sensor parameter adjustment
- 11 Measurement data input (passive input), not with Ex-ia version
- 12 Digital input 1 ... 4
- 13 Common ground for digital input 1 ... 4
- 14 4 ... 20 mA/HART sensor (two-wire version)

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