

VEGATRENN 151

Single channel separator for 4 ... 20 mA sensors



Application area

The single channel VEGATRENN 151 is used for galvanic separation of intrinsically safe applications as well as the signal transmission of Ex approved 4 ... 20 mA sensors in hazardous areas. The separator is ideal in conjunction with signal conditioning instruments without own Ex approval. The VEGATRENN 151 is suitable for bidirectional transmission of HART signals. The HART signal can be tapped via the front-mounted HART communication sockets or the terminals. The total transmissibility of HART signals allows unrestricted access to the sensor settings.

Your benefit

- Reliable separation of intrinsically safe and non-intrinsically safe circuits
- Simple installation, because no additional power supply is required (loop-powered)
- Simple mounting through carrier rail as well as detachable, coded terminals

Function

The current signal from the sensor (4 ... 20 mA) is transferred linearly and galvanically separated to the output. The VEGATRENN 151 is suitable for bidirectional transmission of HART signals. The HART signal can be tapped via the front-mounted HART communication sockets or the terminals. The total transmissibility of HART signals allows unrestricted access to the sensor settings.

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 15 ... 35 V DC (loop-powered)

Sensor circuit

Number of sensors 1 x 4 ... 20 mA/HART (5 x HART multidrop)

Input type Active (sensor power supply by VEGATRENN 151)

Terminal voltage 16 ... 10 V DC at 4 ... 20 mA

Terminal voltage with operating voltage > 19 V

– at 20 mA > 14 V DC

Voltage loss with 15 V operating voltage

– at 20 mA < 5 V

Off-load voltage < 17 V

Short-circuit current ≤ 27 mA

Residual ripple < 20 mV RMS

Processing circuit

Quantity 1 x 4 ... 20 mA/HART

Type of output Passive

Operating voltage 15 ... 35 V DC

Residual ripple of the output current < 40 µA RMS

Current without connected sensor < 500 µA

Ambient conditions

Ambient temperature at the installation site of the instrument -20 ... +60 °C (-4 ... +140 °F)

Electrical protective measures

Protection rating IP20

Protection class II

Pollution degree 2

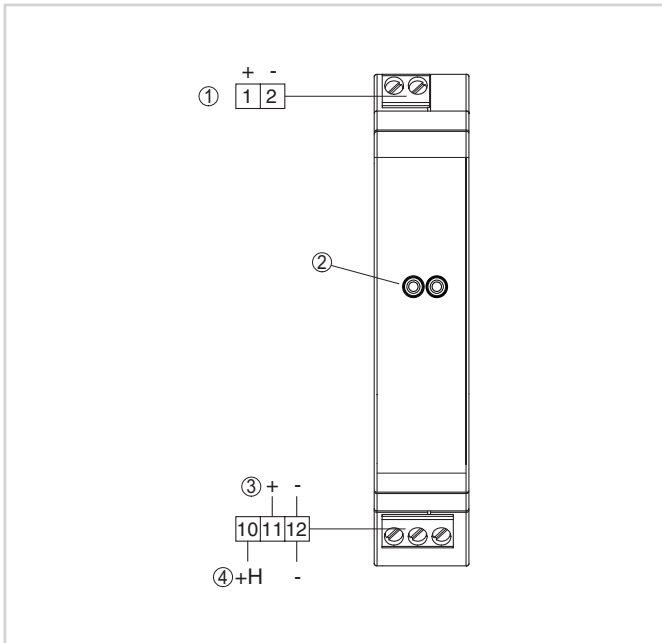
Approvals

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.

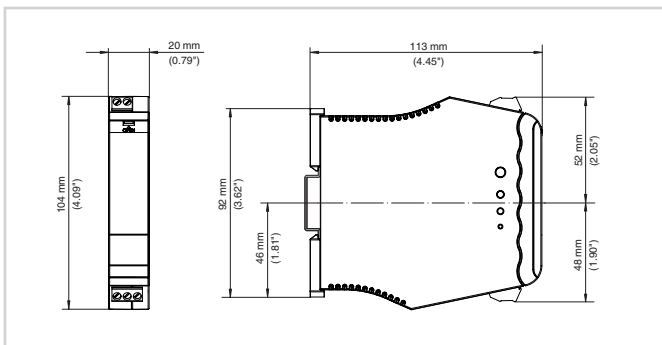
Electrical connection



- 1 Sensor circuit (4 ... 20 mA/HART, Ex area)
- 2 HART communication sockets for connection of a HART handheld, e.g. a VEGACONNECT
- 3 Processing circuit (4 ... 20 mA/HART, passive output)
- 4 Processing circuit (4 ... 20 mA/HART, passive output with looped HART resistor)

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

Dimensions



Dimensions VEGATRENN 151

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".