

## VEGATRENN 142

### Double channel Ex separator for 4 ... 20 mA/HART sensors



#### Application area

The double channel VEGATRENN 142 is used for galvanic separation, intrinsically safe power supply as well as the signal transmission of Ex approved 4 ... 20 mA/HART sensors in hazardous areas. The separate voltage supply ensures a reliable measured value transmission. The VEGATRENN 142 is used in all industries, also with Ex applications. The VEGATRENN 142 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

- Universal Ex-separator for all 4 ... 20 mA/HART sensors (use in Ex-area is optional)
- Complete HART transmissibility enables access to the sensor settings
- Simple mounting through carrier rail as well as detachable, coded terminals
- For auxiliary voltage 20.4 ... 34.1 V DC for power supply of the device and connected sensor

#### Function

The Ex separator is used for intrinsically safe power supply of Ex approved 4 ... 20 mA/HART sensors. The current signal from the sensor (4 ... 20 mA) is transferred linearly and galvanically separated to the output.

The VEGATRENN 142 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 mm<sup>2</sup> (AWG 23) ... 2.5 mm<sup>2</sup> (AWG 12)

##### Voltage supply

###### Operating voltage

– Nominal voltage DC: 24 ... 31 V (-15 %, +10 %)

Max. power consumption: 5 W

##### Sensor circuit

Number of sensors: 2 x 4 ... 20 mA/HART (5 x HART multidrop per channel)

Input type: Active (sensor power supply by VEGATRENN 142)

Terminal voltage: 21 ... 16.5 V DC at 4 ... 20 mA

Off-load voltage: 24 V DC (+/- 1 V)

Short-circuit current: < 26 mA

Residual ripple: < 50 mV RMS

##### Processing circuit

Quantity: 2 x 4 ... 20 mA/HART

Type of output: Active

Off-load voltage: < 15.5 V DC

Residual ripple of the output current: < 50 µA RMS

Current on the input in case of short-circuit: < 10 µA

##### Ambient conditions

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

##### Electrical protective measures

Protection rating: IP20

Overvoltage category (IEC 61010-1): II

Protection class: II

Pollution degree: 2

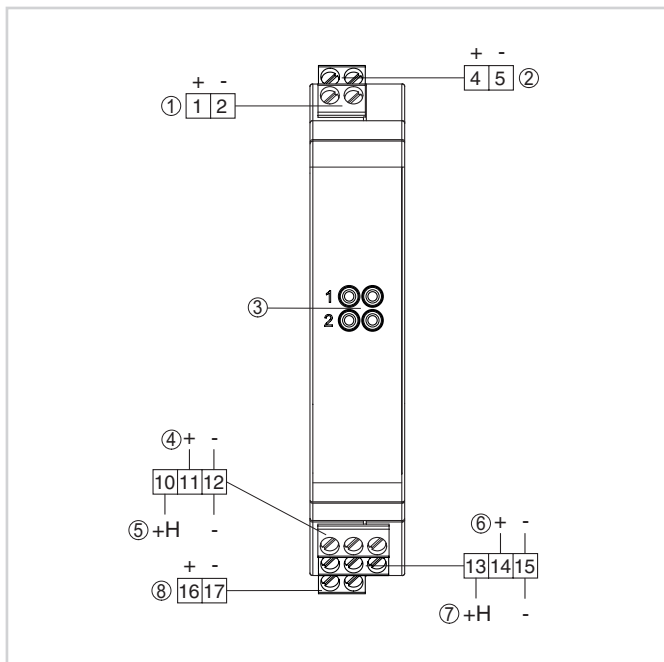
#### Approvals

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.

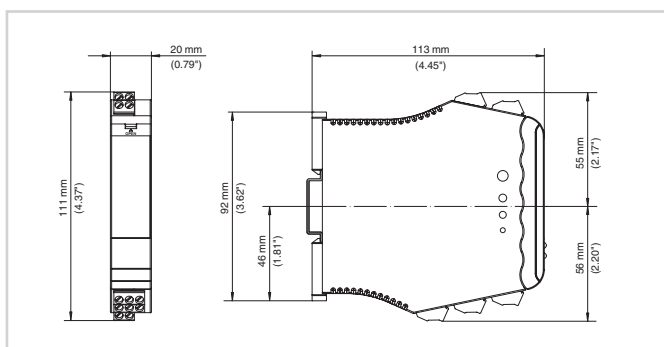
## Electrical connection



- 1 Sensor circuit channel 1 (4 ... 20 mA/HART, Ex area)
- 2 Sensor circuit channel 2 (4 ... 20 mA/HART, Ex area)
- 3 HART communication sockets for connection of a HART handheld, e.g. a VEGACONNECT
- 4 Processing circuit channel 1 (4 ... 20 mA/HART, active output)
- 5 Processing circuit channel 1 (4 ... 20 mA/HART, active output with looped HART resistor)
- 6 Processing circuit channel 2 (4 ... 20 mA/HART, active output)
- 7 Processing circuit channel 2 (4 ... 20 mA/HART, active output with looped HART resistor)
- 8 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 VEGATRENN 142

## 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".