

## VEGADIF 85

### Modbus and Levelmaster protocol

### Differential pressure transmitter with metallic measuring diaphragm



#### Application area

The VEGADIF 85 differential pressure transmitter is used universally for measurement of liquids, gases and vapours. Typical applications are level measurements in pressurized vessels as well as flow measurements in combination with DP flow elements. Further applications are pressure monitoring on filters as well as density and interface measurements.

#### Your benefit

- Measurement of extremely small differential pressures through high precision measured value detection
- High reliability through integrated overload system
- Versatile use through a variety of measuring ranges and process fittings

#### Function

A metallic measuring cell is used as sensor element. The process pressures are transmitted via the separating diaphragms and an oil filling to a piezoresistive sensor element (resistance measuring bridge using semiconductor technology).

The difference between the acting pressures changes the bridge voltage. This change is measured, further processed and converted into a corresponding output signal.

In addition, the measuring cell temperature and the static pressure are measured on the low pressure side. The measuring signals are further processed and are available as additional output signals.

#### Technical data

Process temperature - basic version	-40 ... +105 °C (-40 ... +225 °F)
Process temperature with chemical seals	-40 ... +400 °C (-40 ... +752 °F)
Process pressure	-1 ... +400 bar/-100 ... +40000 kPa (-14.5 ... +5802 psig)
Smallest adjustable span	1 mbar/100 Pa (0.015 psig)
Deviation	< ±0.065 %
Process fitting - basic version	¼-18 NPT according to IEC 61518
Process fitting with chemical seals	Flanges from DN 32 or 2", hygienic fittings from DN 32 or 2"
Process temperature - basic version	-40 ... +85 °C (-40 ... +185 °F)
Process temperature with chemical seals	-40 ... +400 °C (-40 ... +752 °F)
Process pressure	-1 ... +420 bar/-100 ... +42000 kPa (-14.5 ... +6092 psig)
Ambient, storage and transport temperature	-40 ... +80 °C (-40 ... +176 °F)
Operating voltage	8 ... 30 V DC

#### Materials

The process flanges are made of stainless steel 316L, Alloy 276 or Superduplex. The process diaphragm is available in 316L and in the high resistance materials such as Alloy C276 and Tantalum.

You will find a complete overview of the available materials and seals in the "Configurator" at [www.vega.com](http://www.vega.com) and "Products".

#### Housing versions

The housings are available as single chamber or double chamber version in plastic, aluminium or stainless steel.

They are available in protection ratings up to IP68 (25 bar) with external electronics as well as in IP69K.

#### Electronics versions

Apart from the two-wire electronics with 4 ... 20 mA or 4 ... 20 mA/HART, also purely digital versions with Profibus PA, Foundation Fieldbus and Modbus are available.

#### 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.

## Adjustment

### Adjustment directly at the measuring point

The adjustment of the instrument is carried out via the optional display and adjustment module PLICSCOM or via a PC with the adjustment software PACTware and corresponding DTM.

The connection of the PC is carried out via USB directly on the instrument or via an interface adapter USB/RS 485 on the signal cable.

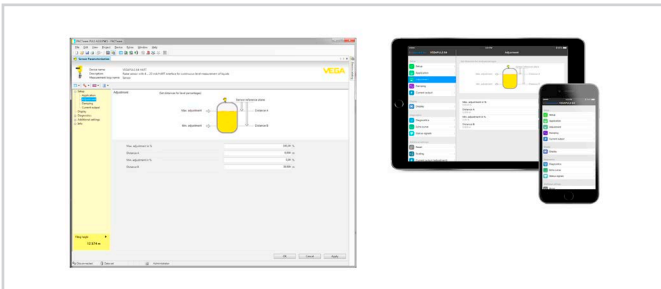
### Wireless adjustment via Bluetooth

The Bluetooth version of display and adjustment module enables a wireless connection to standard adjustment units. This can be smartphones/tablets with iOS or Android operating system or PCs with PACTware and Bluetooth USB adapter.



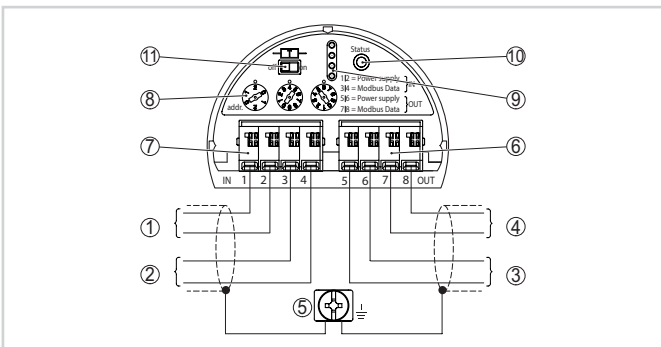
Wireless connection to standard operating devices

Adjustment is hence carried out via a free-of-charge app from the Apple App Store or the Google Play Store or via the adjustment software PACTware and respective DTM.



Adjustment via PACTware or app

## Electrical connection

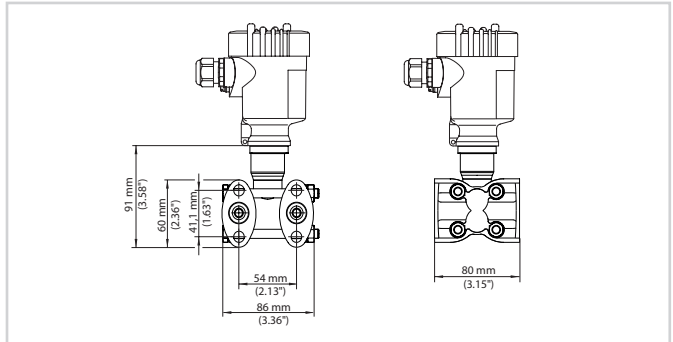


Electronics compartment - Connection Daisy-Chain

- 1 Voltage supply
- 2 Signal input
- 3 Power supply (to further Modbus sensors)
- 4 Signal output (to further Modbus sensors)
- 5 Ground terminal in the housing
- 6 Terminal block - Output (OUT)
- 7 Terminal block - Input (IN)
- 8 Rotary switch for address setting
- 9 Contacts for the display and adjustment module or the interface adapter
- 10 Signal lamp - Status
- 11 Connectable bus resistor

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

## Dimensions



Dimensions VEGADIF 85

## 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.

## Instrument selection

On our homepage under "Products" you can select the suitable measuring principle and instrument for your application.

There you will also find detailed information on the available device versions.

## Contact

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