

# Hydrostatic

Continuous level measurement



**Overview**

**VEGABAR series 60**

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## Hydrostatic

### Level and pressure measurement

#### Measuring principle

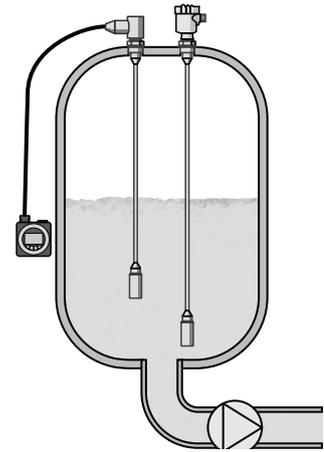
The pressure measuring cell converting the pressure into an electrical signal is the heart of the pressure transmitter. This pressure-dependent signal is converted by the integrated electronics into a standardised output signal. Different measuring cells are used to detect the pressure. The ceramic cells characterize by an excellent long-term stability and high overload resistance. The metal METEC® measuring cell enables fully welded versions.

## VEGABAR series 60

### For all industries

The VEGABAR series 60 covers all requirements on suspension pressure transmitters. Excellent accuracy, overload resistance, temperature resistance and corrosion resistance are the main points which must be met. In conjunction with application-optimised housing versions and electronics, these suspension pressure transmitters are the ideal solution for use in harsh environment.

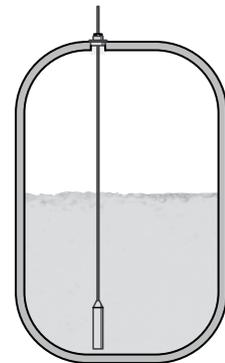
Especially the front-flush, abrasion-resistant CERTEC® measuring cell with its double seal system offers high reliability and measurement certainty.



## VEGAWELL

### For gauge measurements

The suspension pressure transmitters are designed for gauge measurements in water/waster applications. Different versions in combination with different cable materials offer all necessary options. The robust CERTEC® measuring cell as well as the integrated overvoltage arrester ensure the reliable operation.



## Overview

Instrument type		Sensor diameter Deviation in characteristics	Process fitting	Process tem- perature	Measuring range
<b>VEGABAR 66</b> CERTEC®		32 mm 0.1 %	Straining clamp, threaded fitting, thread from G1½, 1½ NPT, flange from DN 40, 2"	-20 ... +100 °C	0 ... +25 bar (0 ... +2500 kPa)
<b>VEGABAR 67</b> METEC®		40 mm 0.1 %	Straining clamp, threaded fitting, thread from G1½, 1½ NPT, flange from DN 50, 2"	-12 ... +100 °C	0 ... +25 bar (0 ... +2500 kPa)
<b>VEGAWELL 52</b> CERTEC® / MINI-CERTEC®		from 22 mm 0.1 %; 0.2 %	Straining clamp, threaded fitting	-20 ... +80 °C	0 ... +60 bar (0 ... +6000 kPa)

## VEGABAR 66



### Suspension pressure transmitter with CERTEC® measuring cell

#### Application area

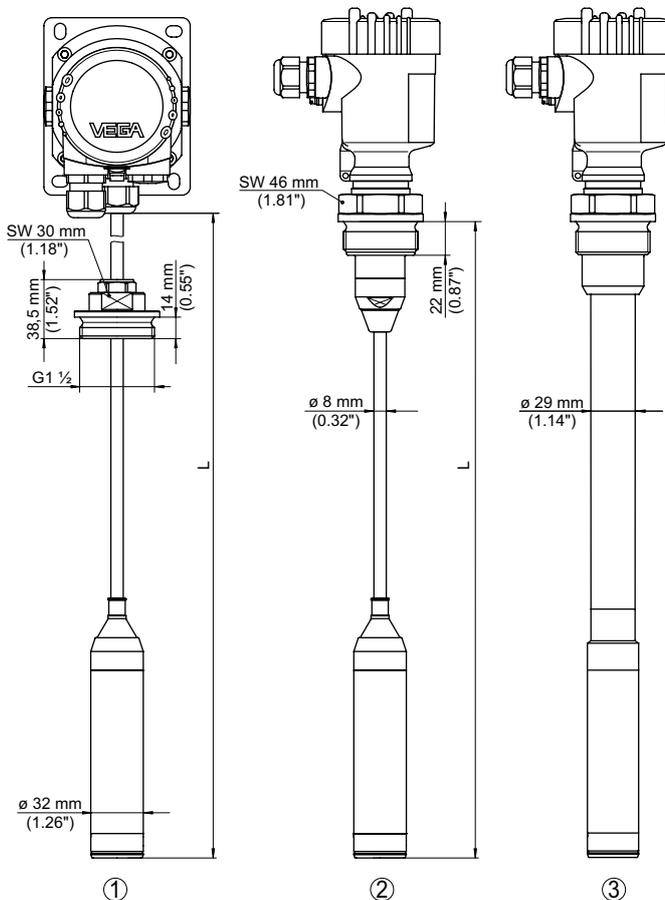
The VEGABAR 66 is a suspension pressure transmitter for level measurement in wells, basins and open vessels. The flexibility through different cable and rod versions offers the possibility to use VEGABAR 66 in a variety of applications.

#### Your benefit

- High plant availability through maximum overload and vacuum resistance of the ceramic measuring cell
- Self-cleaning effect through front-flush design
- Low costs for maintenance through wear-free ceramic measuring cell

#### Technical data

Measuring cell:	CERTEC®
Sensor diameter:	32 mm
Measuring range:	0 ... +25 bar (0 ... +2500 kPa)
Process fitting:	straining clamp, threaded fitting, thread from G1½, 1½ NPT flanges from DN 40, 2"
Process temperature:	-20 ... +100 °C
Deviation of characteristics:	0.1 %
SIL qualification:	optionally up to SIL2



- 1 Version with suspension cable, threaded fitting unassembled G1½ and cable outlet / IP 68, ext. housing plastic / IP 65
- 2 Threaded version G1½, suspension cable
- 3 Threaded version G1½, connection tube

You will find further process fittings and options under [www.vega.com/configurator](http://www.vega.com/configurator).  
 You will find further drawings and tables under [www.vega.com/downloads](http://www.vega.com/downloads).  
 You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".



## VEGABAR 67



### Suspension pressure transmitter with METEC® measuring cell

#### Application area

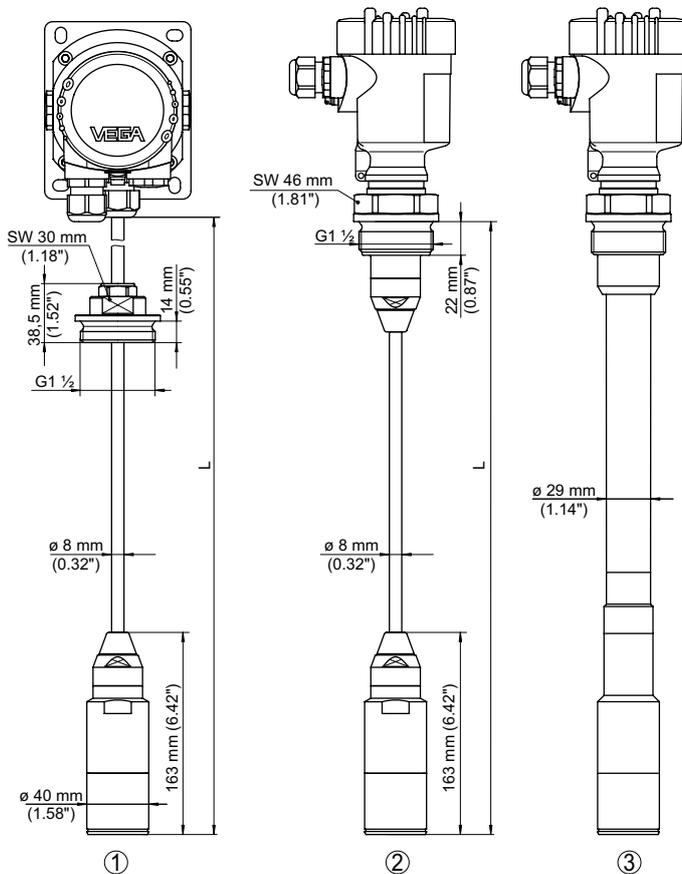
The VEGABAR 67 is a suspension pressure transmitter for level measurement in wells, basins and open vessels. The VEGABAR 67 offers the possibility to realize also smallest measuring ranges from 0.1 bar. Measured products are liquids and viscous products with higher temperatures.

#### Your benefit

- Maximum reliability even with quickly changing process temperatures
- High plant availability through vacuum-resistant version
- Very good cleanability and high chemical resistance through adapted materials

#### Technical data

Measuring cell:	METEC®
Sensor diameter:	40 mm
Measuring range:	0 ... +25 bar (0 ... +2500 kPa)
Process fitting:	straining clamp, threaded fitting, thread from G1½, 1½ NPT flanges from DN 50, 2"
Process temperature:	-12 ... +100 °C
Deviation in characteristics:	0.1 %
SIL qualificationn:	optionally up to SIL2



- 1 Version with suspension cable, threaded fitting unassembled G1½ and cable outlet / IP 68, ext. housing plastic / IP 65
- 2 Threaded version G1½, suspension cable
- 3 Threaded version G1½, connection tube

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## Approval

- XX** without .....
- XM** Ship approval .....
- CX** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 Ga,Ga/Gb,Gb .....
- CA** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 Ga,Ga/Gb,Gb + WHG .....
- CM** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + Ship approval .....
- CI** IEC Ex ia IIC T6 .....
- DX** ATEX II 1/2G, 2G Ex d ia IIC T6 .....
- DI** IEC Ex d ia IIC T6 .....
- GX** ATEX II 1/2D,2D Ex tD IP66 T .....

## Version / Process temperature

- B** Suspension cable FEP / -12...100°C .....
- D** Connection tube 316L / -12 ... 100 °C .....

## Process fitting / Material

- XX** without .....
- AA** Straining clamp / 316L .....
- NG** Threaded fitting, unassembled G1½A PN3 / 316L .....
- GA** Thread G1½A (DIN3852-A) PN60 / 316L .....
- GB** Thread 1½NPT (ASME B1.20.1) PN60 / 316L .....
- FB** Flange DN50PN40 C, DIN 2501 / 316L .....

## Pressure / Measuring range

- A** rel. / 0...0.1bar (0...10kPa) .....
- B** rel. / 0...0.2bar (0...20kPa) .....
- C** rel. / 0...0.4bar (0...40kPa) .....
- D** rel. / 0...1.0bar (0...100kPa) .....
- E** rel. / 0...2.5bar (0...250kPa) .....
- F** rel. / 0...5.0bar (0...500kPa) .....
- G** rel. / 0...10.0bar (0...1000kPa) .....
- H** rel. / 0...25.0bar (0...2500kPa) .....
- 1** abs. / 0...1.0bar (0...100kPa) .....
- 2** abs. / 0...2.5bar (0...250kPa) .....
- 3** abs. / 0...5.0bar (0...500kPa) .....
- 4** abs. / 0...10.0bar (0...1000kPa) .....
- 5** abs. / 0...25.0bar (0...2500kPa) .....

## Electronics

- H** 4...20mA/HART® .....
- P** Profibus PA .....
- F** Foundation Fieldbus .....

## Housing / Protection

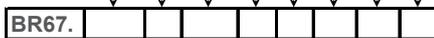
- K** Plastic / IP66/IP67 .....
- A** Aluminium / IP66/IP67 .....
- D** Aluminium double chamber / IP66/IP67 .....
- 8** StSt (electropolished) 316L / IP66/IP67 .....
- T** Cable outlet / IP 68, ext. housing plastic / IP 65 .....
- W** StSt double chamber / IP66/IP67 .....
- R** Plastic 2-chamber / IP66/IP67 .....

## Cable entry / Plug connection

- M** M20x1.5 / without .....
- N** ½NPT / without .....

## Indicating/adjustment module (PLICSCOM)

- X** without .....
- A** Mounted .....



## Total length

FEP cable (400-180000 mm) per 100 mm  
 Tube 316L (250-6000 mm) per 100 mm

## VEGAWELL 52



### Suspension pressure transmitter with CERTEC® measuring cell

#### Application area

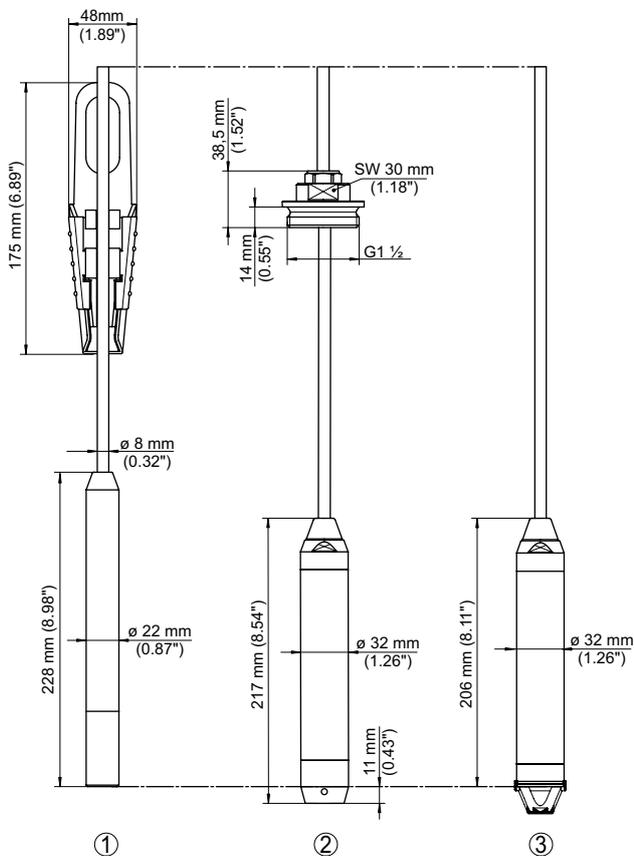
The VEGAWELL 52 is suitable for continuous level measurement of liquids. Typical applications are measurements in water/waste water, deep wells and in the shipbuilding industry.

#### Your benefit

- High reliability through maximum overload and vacuum resistance of the ceramic measuring cell
- High plant availability through integrated overvoltage protection
- Versatile use through robust housing and cable design

#### Technical data

Measuring cell:	CERTEC®
Sensor diameter:	from 22 mm
Measuring range:	0 ... +60 bar (0 ... +6000 kPa)
Process temperature:	-20 ... +80 °C
Deviation in characteristics:	0.2 %; 0.1 %



- 1 Version with straining clamp
- 2 Version with threaded fitting, unassembled G1½, with impact protection
- 3 Standard version with detachable plastic protective basket

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## Approval

- XX** without .....
- XM** Ship approval .....
- AX** ATEX II 1G, 2G Ex ia IIC T6 .....
- AM** ATEX II 1G, 2G Ex ia IIC T6 + Ship approval .....
- AI** IEC Ex ia IIC T6 .....

## Fastening / Material

- X4** without .....
- A4** Straining clamp / 316L .....
- GC** Threaded fitting, unassembled G1 (ISO228-1) PN3 / 316L .....
- GA** Threaded fitting, unassembled G1½ (ISO228-1)PN3 / 316L .....
- NP** Threaded fitting, unass. G1½ (ISO228-1) PN0.2 / PVDF .....
- GK** Thread G1½ (ISO228-1)PN3 / 316L with PBT hous.;M20x1.5 .....
- GV** Thread G1½(ISO228-1) PN3/316Lw.hous.StSt (prec.casting) .....

## Version / Process temperature

- A** Suspension cable PE / -20...60°C .....
- D** Suspension cable PUR / -20...80°C .....
- B** Suspension cable FEP / -20...80°C .....

## Length

- K** 6 m PE suspension cable .....
- L** 12 m PE suspension cable .....
- M** 27 m suspension cable PE .....
- T** individually selectable length (PE/PUR/FEP) .....

## Transmitter material / Diameter

- D** Duplex 1.4462 / 32mm .....
- V** 316L / 22mm .....
- K** Duplex 1.4462 with PE coating / 35mm .....
- P** PVDF / 44mm .....
- T** Titanium / 33mm .....
- T** Titanium / 40mm .....

## Seal measuring cell

- 1** FKM (VP2/A) .....
- 3** EPDM (A+P 75.5/KW75F) .....
- P** FFKM (Perlast G75S) .....

## Measuring range

- A** rel. / 0...0.1 bar (0...10 kPa) .....
- B** rel. / 0...0.2 bar (0...20 kPa) .....
- C** rel. / 0...0.4 bar (0...40 kPa) .....
- D** rel. / 0...1 bar (0...100 kPa) .....
- E** rel. / 0...2.5 bar (0...250 kPa) .....
- F** rel. / 0...5 bar (0...500 kPa) .....
- G** rel. / 0...10 bar (0...1000 kPa) .....
- 2** abs./0...2.5 bar (0...250kPa) .....
- 3** abs./0...5.0 bar (0...500kPa) .....

## Electronics

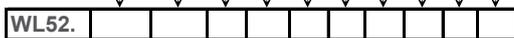
- C** 4 ... 20 mA .....
- D** 4...20mA/HART® + PT100 4-wire .....

## Deviation in characteristic

- 1** 0.20% .....
- 2** 0.10% .....

## Transmitter option

- X** without .....
- V** with impact protection .....



## Total length

- PE (400-550000 mm) per 100 mm
- FEP (400-550000 mm) per 100 mm
- PUR (400-550000 mm) per 100 mm

## VEGABOX 02



### Breather housing with ventilation filter

#### Application area

The VEGABOX 02 is used for electrical connection and ventilation of suspension pressure transmitters such as for example, the VEGAWELL 52. An optional transmitter module enables the conversion of the PT 100 signals into a 4 ...20 mA HART signal.

#### Your benefit

- Use in arduous environment through high resistance plastic housing
- High plant availability through filtering of the ambient air
- Versatile mounting options through wall or C-rail mounting



#### Technical data

Protection: IP 66

#### Approval

- XX without .....
- CX ATEX II 1G, 2G Ex ia IIC T6..T1 Ga,Gb .....
- CI IEC Ex ia IIC T6..T1 Ga,Gb .....

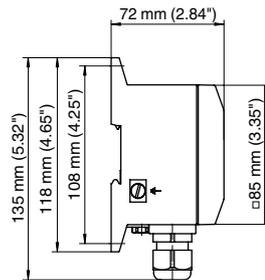
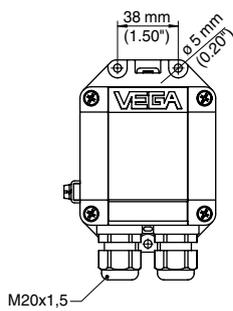
#### Function

- A Pressure compensation .....
- C Pressure compens. and temp. transmitter 4...20mA/HART .....

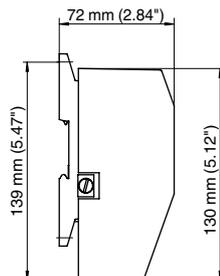
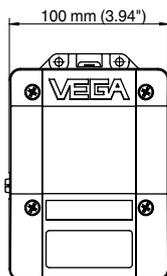
#### Protective cover

- X without .....
- W with .....

BOX02.



Standard version



With protective cover

## Measuring instrument holder for wall/tube mounting



### For mounting of pressure transmitters

The measuring instrument holder is used for mounting of pressure transmitters of VEGABAR series 50 as well as suspension pressure transmitters VEGAWELL 52. The adaptation to different instrument diameters is enabled via an attached reduction piece.

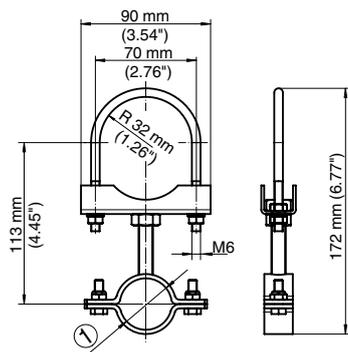
The materials used are 316L and 304.



### Version

- D for VEGABAR series 50; VEGAWELL Ø 22, 32, 38...40 mm .....
- E for VEGABAR series 50; VEGAWELL Ø 33, 36, 44 mm .....

BARMONT.



1 Adaptable diameter from 22 ... 44 mm

## Welded sleeve VEGABAR 66/67, VEGAWELL 52

For process fitting

- GA** Thread G1½ (DIN 3852-A) / 316L .....
- Outer dimensions**
- T** 65x39.5mm .....
- Q** 69x19mm .....
- Seal**
- X** without .....
- Material**
- V** 316L .....
- Certificate / Standard**
- B** C 3.1-Certificate/Mat. ....
- X** without .....

ESMBR66.

## Straining clamp

Suitable for VEGABAR series 60 and VEGAWELL



- Material**
- 27363** Stainless steel 316L .....

2.

## Closing screw VEGAWELL 52, VEGABAR 66/67



**Version / Material**

- GA** Screw connection G1½ (DIN 3852-A) PN3 / 316L .....
- GB** Screw connection 1½NPT (ASME B1.20.1) PN3 / 316L .....

WLVSCHR.