23-110

RESOLUTION AUTHORIZING CONTRACT MODIFICATION 2023-04 TO OPERATIONS MANAGEMENT INTERNATIONAL/JACOBS

MOTIONED BY: Friedrich
SECONDED BY: Marotta

WHEREAS, the North Hudson Sewerage Authority (hereinafter "Authority") is a public body, duly formed under the Sewerage Authorities law, constituting Chapter 138 of the Laws of New Jersey of 1946, as amended (Chapter 14A of Title 40 of the New Jersey Statutes Annotated) and possesses the powers set forth therein; and

WHEREAS, the Authority has contracted with Operations Management International, Inc., Denver, CO. in the amount of $8,513,649.77 for the operation, maintenance and management of the Authority's sewerage collection and treatment facilities pursuant to the provisions of the Wastewater Treatment Privatization Act, N.J.S.A. 58:27-1 et seq; and

WHEREAS, Operations Management International, Inc., has submitted a proposal(Exhibit "A") for additional compensation in the amount of $156,032.77 related to the 18TH Street Pump Station Controls Upgrade; and

WHEREAS, the Facilities Review Board has reviewed the proposal and recommends the approval of the requested contract.

NOW, THEREFORE, BE IT RESOLVED that the Authority hereby authorizes the execution and implementation of said contract modification 2023-04 in the amount of $156,032.77.

DATED: SEPTEMBER 21, 2023

RECORD OF COMMISSIONERS' VOTE

	YES	NO	ABSENT
Commissioner Kappock			x
Commissioner Marotta	x		
Commissioner Gardiner	x		
Commissioner Friedrich	x		
Commissioner Guzman	x		
Commissioner Velazquez	x		
Commissioner Barrera	x		
Commissioner Zucconi	x		
Commissioner Assadourian	x		

THIS IS TO CERTIFY THAT THIS RESOLUTION WAS DULY ADOPTED BY THE NORTH HUDSON BOARD OF COMMISSIONERS ON SEPTEMBER 21, 2023.

_____

SECRETARY

Operations & Maintenance
NHSA Project
1600 Adams Street
Hoboken, NJ 07030
T +1.201.795.1411
F +1.201.420.6917
www.jacobs.com

Donald R. Conger III, PE
North Hudson Sewerage Authority
1600 Adams Street
Hoboken, New Jersey 07030

September 12, 2023

Subject: Proposed Out of Scope Project
18th Street Pump Station Replacement of Controls

Dear Mr. Conger:

Jacobs OMI is pleased to provide North Hudson Sewerage Authority ("Authority") our proposal to upgrade and replace the control system at 18th Street Pump Station in Weehawken.

Overview:

The 18th Street pump station was built approximately 70 years ago and was upgraded in 2004. At that time, new control systems, sanitary and CSO pumps were installed and have performed flawlessly for 20 years. The PLC and control system, main electrical components, bubbler system, graphics interface screen, 24VDC power supply and backup power supply have reached the end of their useful life and need replacement.

The Jacobs Regional Support Team, along with our in-house electricians, will upgrade the main electrical components feeding the control cabinet, along with installing new backup power supply, upgrading the PLC and programming software because it is now discontinued, and revamping the existing controls and programs for the flow meter, sanitary and CSO pumps, and the level sensor system. There is also only one means of control voltage to run the PLC and bubbler system, so the electrical upgrades will address back up power for emergency situations.

The work will consist of upgrading the following items:

- Operator Interface Terminal (OIT)
- PLC
- Verbatim Alarm Module
- Controls and programming for flow meters
- Bubbler System Level Sensor
- VFD Pump Feedback
- Rehabbing main electrical components
- Installing a new backup 24 VDC power supply system
- Relay Pump Station Status to Adams Street Control Room

Scope of Services and Specifics:

Utilizing Jacobs regional support, the following tasks will be completed to fully upgrade and rehab the 18th Street Pump Station Controls.

Tasks

1. Core drill new holes for level sensors
    a. We will core drill two holes into the top of the wet well to mount the new submersible level sensors.
    b. Run conduit and install conduit supports to get from the level sensors to the PLC panel.
2. Install new standalone VEGA 342 controller and VEGA Submersible level sensors.
    a. This controller will be the main interface for the level sensor and be used as the backup controller in the event of a PLC failure.
    b. There will be a primary VEGA BAR 86 submersible level sensor and a backup VEGA WELL 52 submersible sensors.
    c. The VEGA controls will also be the temporary means of control while the new PLC is installed.
3. Install new relays and terminal blocks.
    a. We will be replacing all corroded and aged terminal blocks with new terminals and new wires numbering.
    b. All relays will be replaced and / or removed if no longer needed. Additional relays are going to be used to have the ability to swap control functions from the VEGA controllers to SCADA or SCADA to the VEGA controllers.
4. Once the level sensors and VEGA sensors are installed and setup, we will transition control of the pump station to the controllers and submersible sensors.
5. Demo all other not needed relays, conditioners, and parts of the bubbler system.
    a. We have decided we will rehab the main siemens controller and service the compressors and keep them as a third means of level control since the system does still work. Additional time will be needed to rehab the plumbing and some of the electrical.
6. Transfer logix control from GE Fanuc to RSLogix 5000.
    a. The code for the station will be re-written to allow the upgrade to the Allen Bradley controller.
    b. New graphics will be developed in FactoryTalk View Studio to be displayed on the new 15.6 Maple systems OIT.
7. Install temporary power.
    a. We will install a temporary power source to allow the pump station to operate while demoing the main power components.
8. Replace current 480 to 120 transformer.
    a. Main transformer will be replaced to ensure the panel electrical is stable and in good working order.
9. Replace the current power conditioner.
    a. The power conditioner for the main power supply will be replaced to maintain a stable, constant sine, clean power source.
10. Install new line voltage 850VA UPS.
    a. A SolaHd 850VA will be installed to provide power to the control panel while the generator starts.
11. Install new redundant SolaHD 10Amp 24VDC power supplies and distribution terminal blocks.

    a. This will act as the new backbone of the system. The modules will have a redundancy module installed so if one goes bad, it will alarm and automatically switch to the second power supply.
12. Install new Allen Bradley CompactLogix L30ERM with I/O.
    a. The I/O will be replaced in kind with the I/O from the existing GE unit.
    b. The PLC will be a CompactLogix L30ERM with the largest PA-4, 4-amp power supply to power the existing system and allow for future expansion.
    c. PLC will be setup to automatically switch to the VEGA 342 in the event the program stops running.
    d. The PLC will also be setup to automatically switch to the VEGA 342 in the event of power loss to the PLC.
13. Install new Maple System 15.6" High Speed HMI
    a. The new screen will have controls for the CSO pumps, Sanitary pumps and be able to view the barscreen status.
14. Development and networking
    a. Develop and implement screens for the new OIT
    b. Develop and implement screens for Adams Street
    c. The system will be connected to Adams Street SCADA network via the new Unifi PTP Wi-Fi system.
    d. Screens will be added to Adams Street as well to be able to view and control 18th Street remotely. The trends and data for 18th Street will also be available on the Adams Street SCADA server.
    e. The 18th Street PLC will be added to the network overview screen at Adams Street as well to be able to see the status of the PLC.
15. Complete Mission work
    a. All signals going to mission will be refed from the new system.
    b. A conduit and relays will be added from the main building to the generator room to allow a signal to be pulled to mission for generator run / fault status.
    c. Verify all mission inputs, outputs and analog signals are correct and properly identified.
16. Acceptance Testing
    a. The system will be tested from the VEGA 342's to verify, hand and auto functions when using the VEGA 342's.
    b. The system will be tested from the PLC to verify, hand and auto functions.
    c. The Wi-Fi data transfer rates, signal and DB loss will be tracked, and adjustments will be made if necessary to ensure a solid connection is always available.

Additionally, the proposal includes supplying and installing equipment necessary to allow for SCADA monitoring of 18th Street pump station systems from the Adams Street WWTP control room. Attached here within, is a detailed scope of services including equipment selected for this project.

Schedule:

Once the project is approved, we will begin ordering supplies and materials. Anticipated equipment lead times are estimated to be 12 to 16 weeks. A majority of the work will be completed by Jacobs Regional electricians, however, to save on costs, project staffed electricians will also help and assist with their efforts. Once work begins, installation and testing are estimated to take four weeks to complete. To ensure that the pump station remains 100% operable during the effort, redundant controls will be established and monitored during each phase of the job.

Cost:

Jacobs OMI's proposed cost estimate for the project is $156,032.77 (One Hundred Fifty-Six Thousand Thirty-Two Dollars and Seventy-Seven Cents). This amount is based on the estimated direct costs and includes Jacobs' markup of 15% to cover general and administrative costs, overhead, and profit. Jacobs will invoice on a lump sum basis. The out-of-scope project costs are in addition to the Agreement's base fee and any other Agreement budget amounts.

	Project Costs - Summary Table	COST ($)
1	All Parts, Materials, and Supplies	$76,079.40
2	Labor (2 Jacobs Regional Support Electricians and travel expenses)	$59,601.27
3	Jacobs OMI (15% O&P)	$20,352.10
	TOTAL	$156,032.77

TOTAL COST: $156,032.77

Jacobs OMI appreciates the opportunity to provide this proposal. If you need additional information or have any questions regarding this letter, please feel free to contact me by phone at 201.795.1411 or by e-mail at mark.berube@jacobs.com.

Thank you for your consideration regarding this proposed out of scope project.

Regards,

Mark Berube
Project Director

Kevin Dahl
Regional Director, Jacobs

Cc: Richard Wolff, NHSA Executive Director
Fred Pocci, NHSA Authority Engineer
Don Conger, NHSA Authority Associate Engineer
Phil Reeve, Jacobs OM

Enclosure(s):

- Allen Bradley PLC and software
- Maple systems screen
- Sola HD 23-23-230-8 Power conditioner
- SolaHD Power Supply
- Square D 3T5F Transformer
- Spec Sheet Vega Level Sensors 52 and 86
- Spec Sheet Vega Level Controller 342

Your data

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Payment and shipping

SHIPPING

Express shipping (DHL)

PAYMENT

Credit Card

Bank transfer

PayPal

Discount code

Apply

Subtotal	USD $ 23,070.32
Shipping	USD $ 41.18
Total	**USD $ 23,111.50**

I have read and accept the **terms and conditions of sale**

Confirm your order

Order Summary

1769-L30ERM Allen-...

1 **USD $ 2,639.63**

1769-OW16 Allen-Bradley

1 **USD $ 1,003.06**

Need help? Contact us via chat

or call us at **+390287189214**

1769-IA16 Allen-Bradley

2 USD $ 454.02 **USD $**

1769-IF4I Allen-Bradley

4 USD $ 2,058.91 **USD $**

1769-OF4CI Allen-Bradley

2 USD $ 2,534.04 **USD $**

9701M-VWSSPT30M ...

1 **USD $ 2,555.16**

9701M-VWSDRT10M ...

1 **USD $ 2,660.74**

Delivery Notes

Write notes here ...

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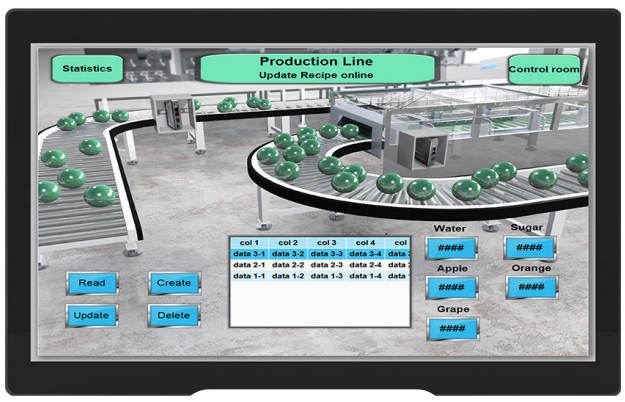

Hover to zoom



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- High-Resolution Capacitive Touch Screen
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- Multiple Memory and Storage Options Available
- Windows® 10 IoT 2019 Operating System
- Optional Wi-Fi Upgrade
- Integrate with AVEVA™ Edge 2020,

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Chad Hoover
Owner/President
Terminal Connections

Configurator | Specifications | Software | Documentation & Resources | What's Included

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The base options are selected by default. Select the options to the get desired configuration.

Display

- ◉ **21" LCD** *Capacitive Touch TFT XVGA* -

Processor (CPU)

- ◉ **Intel® Pentium® N4200 Quad-Core, 1.1 GHz** *2148 CPU Benchmark* -

System Memory (RAM)

- ○ **4 GB** *DDR3L 204-pin SO-DIMM* -
- ◉ **8 GB** *DDR3L 204-pin SO-DIMM* $60

Storage

- ○ **32 GB SSD** *SATA 2, MLC* -
- ○ **64 GB SSD** *SATA 2, MLC* $25
- ○ **128 GB SSD** *SATA 2, MLC* $70
- ○ **256 GB SSD** *SATA 2, MLC* $180
- ◉ **512 GB SSD** *SATA 2, MLC* $325

Operating System

- ○ **Microsoft® Windows® 10 IoT Enterprise 2019 LTSC 64-bit (PKEA)** *Entry* -

Current Configuration

Display 21" LCD	$1,810
Processor (CPU) Intel® Pentium® N4200 Quad-Core, 1.1 GHz	Included
System Memory (RAM) 8 GB	$60
Storage 512 GB SSD	$325
Operating System Microsoft® Windows® 10 IoT Enterprise Embedded 2019 LTSC 64-bit (EPKEA)	$0
Expansion Kit Wi-Fi	$85

Your Part Number:
PC1221AP-B07M6BW

Qty: 1

Total: $2,280.00

Add To Cart

Buy Now

◉ **Microsoft® Windows® 10 IoT Enterprise Embedded 2019 LTSC 64-bit (EPKEA)** ? *Entry*	**$0**
Expansion Kit	
○ **None**	**-**
◉ **Wi-Fi** *802.11b/g/n*	**$85**

Default options highlighted in yellow

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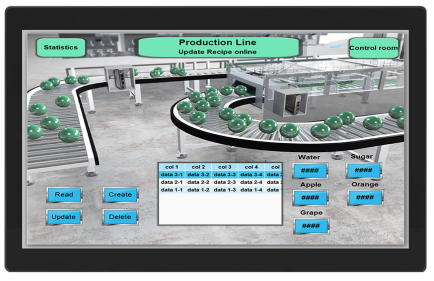
Learn More about OMI6821B

21.5" Industrial PC Series | PC1321BP



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21.5” Capacitive Industrial PC, Intel 7th Gen Core i5-7300U 2.6 GHz CPU, 6 USB Ports, 2 Ethernet Ports, 4 Serial Ports, 1 HDMI, 1 Display Port, 1 Mic Line In, 1 Audio Line Out, Optional Wi-Fi

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About Maple Systems

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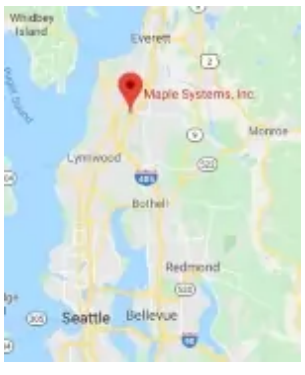

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Web Price
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GEORGIA-PACIFIC Paper Towel Roll: White, 10 in...

Web Price
$132.46 / pkg. of 6

Related Categories

Power Conditioners

Transformers, UPS & Power Supplies

Electrical

SOLAHD Power Conditioner: 12.5A @ 240V AC/14.4A @ 208V AC/25A @ 120V AC/6.3A @ 480V AC, 120/240

Item **6NW11** Mfr. Model **23-23-230-8**

Web Price
$6,196.86 / each

This item requires special shipping, additional charges may apply.

Qty 1 **Add to Cart**

(•) Ship ( ) Pickup

Ships from supplier. Expected to arrive on or before **Thu. Dec 29**.

Ship to **07054** | Change

Shipping Weight **142 lbs**

Ship Availability Terms

Add to List

Product Details

Catalog Page 205

- Max. Amps **12.5A @ 240V AC; 14.4A @ 208V AC; 25A @ 120V AC; 6.3A @ 480V AC**
- Input Voltage **120/208/240/480V**
- Output Voltage **120/240**
- Power Rating **3kVA**
- Output Watts **3,000 W**
- Hardwired/Corded **Hardwired**

Documents

PDF CVS Hard...

Width **13 in**

Depth **10 in**

Height **19 in**

Phase **Single**

Voltage Regulation % **+/-1**

Cord Length **No Cord**

Number of Outlets **0**

Standards **UL 1012/CSA**

UNSPSC **39121009**

Country of Origin **USA (subject to change)**

Product Description

Constant-voltage transformers regulate voltage, filter noise, and suppress surges to protect connected equipment, and can function as both step-up and step-down transformers. For use where a constant voltage level is required to help reduce unscheduled downtime, incorrect data, or scrapped production.

1-phase
Hardwired, panel-mount
25-yr. typical mean time before failure (MTBF)

CVS Manual

CVS MCR Series Tech Sheet

Alternate Products

SOLAHD Power Conditioner: 12.5A @ 240V AC/14.4A @ 208V AC/25A @ 120V AC/6.3A @ 480V AC, 120/208/240V

Item **5EU18**

Web Price

$4,795.87 / each

Qty 1

Add to Cart

Chat with an Agent

GRAINGER

Cart

Order Summary

Subtotal	$2,897.15	Estimated Tax	N/A	Estimated Shipping	$59.93

Estimated Total $2,957.08

SOLAHD

DC Power Supply: 85 to 264 V AC, Single, 24V DC, 480W, 20, DIN Rail

Item # 5DJN0

Availability

Expected to arrive **Mon. Dec 12**.

Qty 2

Web Price **$970.46** / each

Total **$1,940.92**

SOLAHD

Redundancy Power Supply Module: Sola SDN Series DC Power Supplies, DIN Rail, 24V DC, 20

Item # 10G787

Availability

Expected to arrive **Mon. Dec 12**.

Qty 1

Web Price **$148.39** / each

SOLAHD

UPS: Line Interactive, 850 VA Power Rating, 510 W Watt, 230 V AC, 230 VAC, 0 Outlets

Item # 61VD28

Availability

Expected to arrive **Tue. Dec 13**.

This item requires special shipping, additional charges may apply.

Qty 1

Web Price **$807.84** / each

Specification sheet

VEGABAR 86

4 … 20 mA

Submersible pressure transmitter with ceramic measuring cell

Application area

The VEGABAR 86 is a pressure transmitter for pressure and level measurements of liquids and viscous products in the chemical, food processing and pharmaceutical industry. The device offers the possibility to detect even smallest measuring ranges from 0.1 bar.

Your benefit

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

Function

The heart of the pressure transmitter is the pressure measuring cell transforming the pressure into an electrical signal. This pressure-dependent signal is convereted by the integrated electronics into a standardized output signal.

The sensor element with VEGABAR 86 is the CERTEC® measuring cell with excellent long-term stability and high overload resistance. The measuring cell is also equipped with a temperature sensor. The temperature value can be displayed via the display and adjustment module or processed via the signal output.

Technical data

Measuring ranges	+0.1 … +25 bar/+10 … +2500 kPa (+1.45 … +363 psig)
Smallest measuring range	+0.025 bar/+2.5 kPa (+0.363 psig)
Deviation	< 0.1 %
Process fitting	Straining clamp, threaded fitting, thread ab G1½, 1½ NPT, flanges from DN 32, 1½"
Process temperature	-20 … +100 °C (-4 … +212 °F)
Ambient, storage and transport temperature	-40 … +80 °C (-40 … +176 °F)
Operating voltage	9.6 … 35 V DC

Materials

The transmitter of the instrument is made of 316L or PVDF. The process seal consists of FKM, FFKM or EPDM, the suspension cable of PE, PUR or FEP.

You will find a complete overview of the available materials and seals in the " *Configurator*" at www.vega.com and " *Products*".

Housing versions

The housings are available as single 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 are available. In addition a version as Secondary sensor is available for the electronic differential pressure measurement.

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.

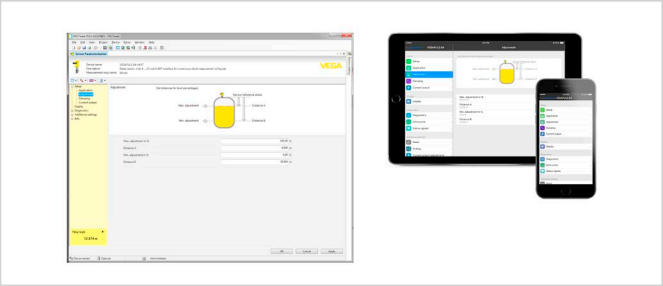
Adjustment

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.

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.

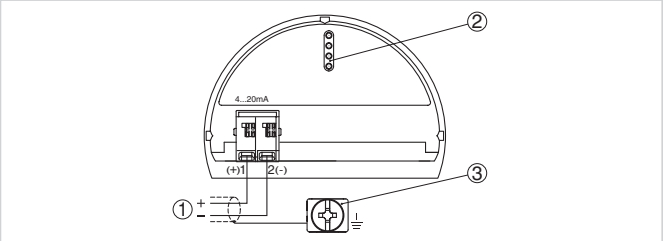
Wireless connection to standard operating devices

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

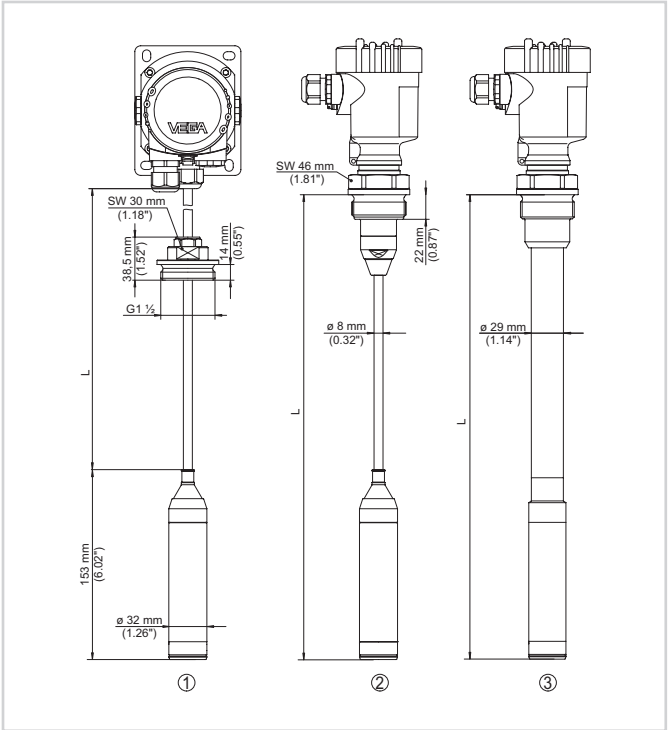
Electrical connection



Electronics and connection compartment, single chamber housing

1 *Voltage supply, signal output*
2 *For display and adjustment module or interface adapter*
3 *Ground terminal for connection of the cable screening*

Dimensions



1 *Version with suspension cable and threaded fitting unassembled G1½*
2 *Threaded version G1½, suspension cable*
3 *Threaded version G1½, connection tube*
L *Total length from configurator*

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*".

Specification sheet

VEGAWELL 52

4 … 20 mA

Submersible pressure transmitter with ceramic measuring cell

Application area

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

Your benefit

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

Function

The ceramic CERTEC® measuring cell is the heart of VEGAWELL 52. The hydrostatic pressure of the liquid column causes a capacitance change in the measuring cell via the ceramic diaphragm. This change is converted into a standard 4 … 20 mA signal. The entire measuring cell consists of high purity ceramic and is characterised, apart from its excellent long-term stability, by very high overload resistance.

Technical data

Measuring ranges	+0.1 … +60 bar/+10 … +6000 kPa (+1.45 … +870.2 psig)
Smallest measuring range	+0.1 bar/+10 kPa (+1.45 psig)
Deviation in characteristics	0.1 %
Process fitting	Straining clamp, threaded fitting unassembled from G1 (ISO 228-1) or from 1 NPT, thread G1½ (ISO 228-1) or from 1½ NPT on the housing
Process temperature	-20 … +80 °C (-4 … +176 °F)
Ambient, storage and transport temperature	-40 … +80 °C (-40 … +176 °F)
Operating voltage	8 … 35 V DC

Materials

The transmitter of the instrument is made of 316L, Duplex (1.4462), Titanium or PVDF. The process seal consists of FKM, FFKM or EPDM, the suspension cable of PE, PUR or FEP.

You will find a complete overview of the available materials and seals in the " *Configurator*" at www.vega.com and " *VEGA Tools*".

Housing versions

Apart from the version with unassembled cable end, there is also a version with single chamber housing and thread available.

The housing in protection rating IP66/IP67 is available in plastic or stainless steel precision casting.

Electronics versions

The instruments are available in different electronics versions. Apart from the analogue/digital two-wire electronics 4 … 20 mA/HART Pt 100, a pure analogue version 4 … 20 mA is also possible.

Approvals

Worldwide approvals are available for VEGA instruments, e.g. for use in hazardous areas, on ships or in hygienic applications.

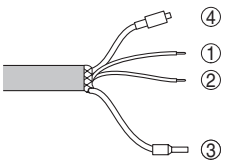
The technical data in the respective safety instructions are valid for approved instruments (e.g. with Ex approval). In some cases, these data can differ from the data listed herein.

You can find detailed information on the existing approvals with the appropriate product on our homepage.

Adjustment

An adjustment of the instrument is not necessary and not possible. The measuring range corresponds to the value set at the factory.

Electrical connection

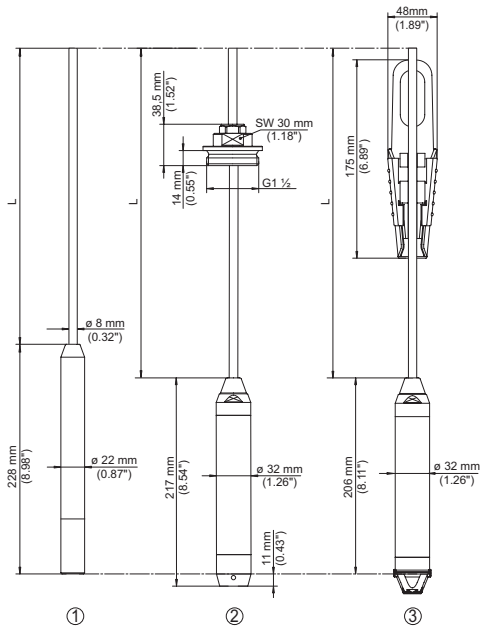


Wire assignment, suspension cable

1 *Blue (-): to voltage supply or to the processing system*
2 *Brown (+): to voltage supply or to the processing system*
3 *Shielding*
4 *Breather capillaries with filter element*

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

Dimensions



Dimensions VEGAWELL 52

1 *Standard version*
2 *Version with adjustable screw connection for suspension cable G1½ A, with impact protection*
3 *Version with straining clamp and detachable plastic basket guard*
L *Total length from configurator*

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*".

Specification sheet

VEGAMET 342

Controller for two continuously measuring analogue level sensors

Application area

The controller VEGAMET 342 feeds the connected 4 … 20 mA sensors, processes the measured values and displays them. The built-in housing is ideal for mounting in the switching cabinet. A large display for data visualisation as well as a turn/push button for easy adjustment on site are integrated.

It enables simple implementation of pump controls, flow measurements on open channels and weirs, totalizers, difference, sum and average value calculations. With VEGAMET 342, limit values can be reliably monitored and relays can be switched, e.g. for an overfill protection according to WHG.

Due to its various possibilities it is suitable for many industrial branches as well as plant manufacturers.

Your benefit

- Easy-to-read display from a distance, even in sunlight and darkness
- Complex programming of control tasks is no longer necessary
- Simple and reliable commissioning and diagnosis of the measuring points via smartphone

Function

The VEGAMET 342 controller can power the connected sensors and process their measurement signals. The requested parameter is shown on the display and also output to the integrated current output for further processing. The measurement signal can thus be transferred to a remote display or a superordinate control system. Operating relays for control of pumps or other devices are also integrated.

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

Operating voltage	
– Nominal voltage AC	100 … 230 V (-15 %, +10 %) 50/60 Hz
– Nominal voltage DC	24 … 65 V (-15 %, +10 %)
Power consumption	max. 15 VA; 5 W
Sensor input	
Number of sensors	2 x 4 … 20 mA
Type of input (selectable)	
– Active input	Sensor supply through VEGAMET 342
– Passive input	Sensor has an own voltage supply
Measured value transmission	
– 4 … 20 mA	analogue for 4 … 20 mA sensors
Deviation	
– Accuracy	±20 µA (0.1 % of 20 mA)
Terminal voltage	27 … 22 V at 4 … 20 mA
Relay output	
Quantity	3 x operating relay, one can be configured as fail safe relay
Switching voltage	max. 250 V AC/60 V DC
Switching current	max. 1 A AC (cos phi > 0.9), 1 A DC
Breaking capacity	min. 50 mW, max. 250 VA, max. 40 W DC (with U < 40 V DC)
Current output	
Quantity	2 x output
Range	0/4 … 20 mA, 20 … 0/4 mA
Max. load	500 Ω
Bluetooth interface	
Bluetooth standard	Bluetooth 5.0
Indicators	
Measured value indication	
– Graphic-capable LC display, with lighting	70 x 45 mm, digital and quasianalogue display
Adjustment elements	Turn/Push button
Ambient conditions	
Ambient temperature	
– Instrument in general	-20 … +60 °C (-4 … +140 °F)
Electrical protective measures	
Protection rating	
– Front	IP40 (IEC 60529)
– Instrument	IP20 (IEC 60529)

Adjustment

The VEGAMET 342 has an integrated display and adjustment unit. In addition, the parameter adjustment of the device can be done via Bluetooth and corresponding adjustment tools.

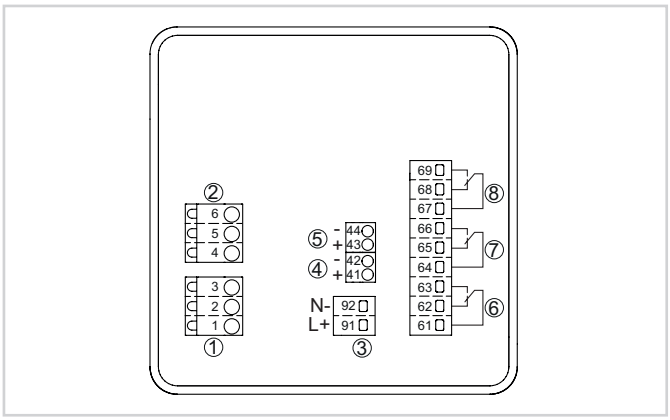
Adjustment via the display and adjustment unit
The adjustment is carried out menu-driven via a turn/push button and a clearly arranged, graphic-capable display with background lighting.

Wireless adjustment via Bluetooth
The integrated Bluetooth module enables wireless connection to smartphones/tablets (iOS/Android) or Windows PCs.

Operation is via a free app from the " *Apple App Store*", the " *Google Play Store*" or the " *Baidu Store*". Alternatively, adjustment can also be carried out via PACTware/DTM and a Windows PC.

Wireless connection to smartphone/table/notebook

Electrical connection

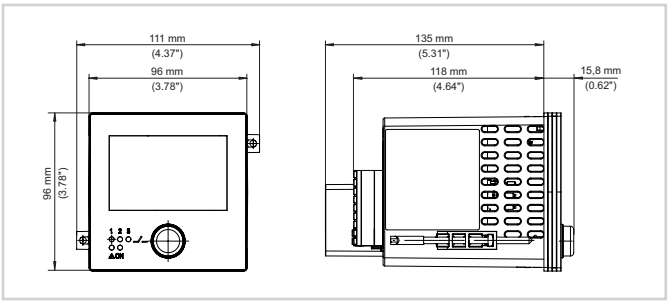


Wiring plan VEGAMET 342

1 *Sensor input 1 (active/passive)*
2 *Sensor input 2 (active/passive)*
3 *Voltage supply of the controller*
4 *4 … 20 mA current output 1*
5 *4 … 20 mA current output 2*
6 *Relay output 1*
7 *Relay output 2*
8 *Relay output 3*

Details on the electrical connection can be found in the operating instructions of the device in the download area on our homepage.

Dimensions



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