

VEGAFLEX 60

a proven method of measurement:
guided wave radar

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OVFX.03/03.R0

VEGAFLEX 60



guided microwave
radar for **level**
measurement

OHMART
VEGA

VEGAFLEX 60: *guided microwave radar*

reliable solution

Ohmart/VEGA is proud to provide a wide variety of technologies for point and continuous level measurement. With the introduction of the VEGAFLEX 60 series, Ohmart/VEGA is pleased to offer high performance guided wave radar for measurement of solids and liquids. Ohmart/VEGA excels in providing customers with optimal solutions for their level and specialty measurement applications.

principle of operation

pulse

The **VEGAFLEX** emits a microwave pulse at a frequency of 2GHz. This pulse travels down to the product surface and is “guided” by a stainless steel cable or rod. When the pulse hits the surface of the product it is reflected back to the gauge.

target

Pulses are reflected from a solid or liquid material. Influences that affect the proportion of microwave energy which is reflected back to the gauge include particle size, moisture content, and dielectric constant (DK).

time

The travel time of the pulse is measured and converted to distance.



benefits



material measured

VEGAFLEX 60 series gauges can be used to measure a wide range of both liquids and solids. They are unaffected by characteristics such as temperature, pressure, bulk density, specific gravity, vortexing, and angles of repose.

angles of repose / vortexing

Because the **VEGAFLEX** reports level where the antenna touches the product, false reflections or signals caused by the angle of the product are eliminated. The **VEGAFLEX** will report the level accurately regardless of the products' angle.

antenna styles

Choose the **rod** antenna for agitated liquids or light solids. Choose the **cable** antenna for applications with liquids, heavy solids, or where low overhead clearance is an issue.

detachable antenna

All **VEGAFLEX** models have a detachable antenna as a standard feature. This is a feature unique to the **VEGAFLEX**. A 360° swivel connection allows cable models to remain tangle free.

2-wire/loop powered

The **VEGAFLEX** series is able to be loop powered, reducing the cost of installation.

small process connection

Models are available with NPT connections ranging in size from $\frac{3}{4}$ " to $1\frac{1}{2}$ ",

wide field of applications

Just three models of sensors for virtually all applications.

electronic ease

With a **plics**® sensor, electronics are easily exchangeable, and simple to program.



features & benefits

features

general explanation

the idea

plics[®] is a revolutionary concept in measurement technology. The idea behind **plics**[®] is that "easier is better". The advances made by the **plics**[®] concept will allow our customers to specify, and program all of our instruments with ease. All **plics**[®] level measurement technologies from Ohmart/VEGA have been designed with common features including:

- The ability to view vessel echo curves in the instrument head or on a remote display.
- The same housing options for all gauges: StSt, AI, AI Ex Proof, & Plastic
- Interchangeable programming methods for all devices: HART[®], PC Visualization software & plicscom
- Plug-in electronic modules that are the same size and easy to install, wire, and maintain.

simplicsity[®]





indicating & adjustment module

plicscom



housing

plastic



StSt



signal chamber aluminum



dual chamber aluminum



electronics

4-20mA HART®



Profibus PA



Foundation Fieldbus



Level Switch



process fitting

thread



flange



sanitary



sensor type

level



switching



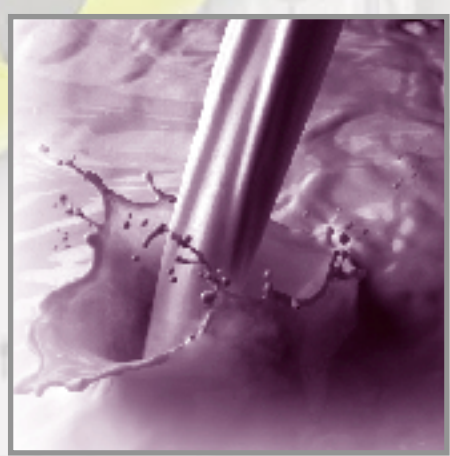
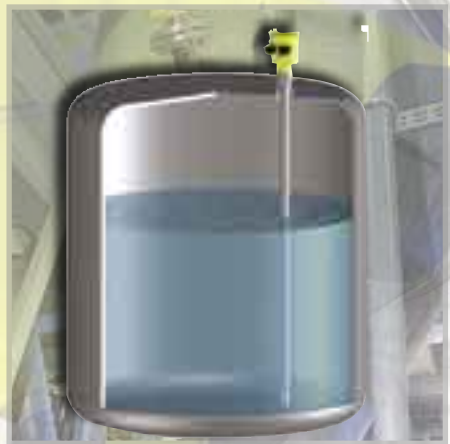
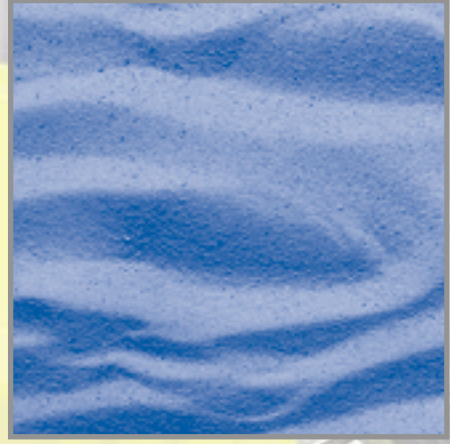
pressure



vegaflex rod & cable

VEGAFLEX 60: applications

applications





displacer replacement

Ideal for replacing existing mechanical devices, the **VEGAFLEX 61** can fit into a current displacer style bridle and provide measurement with no moving parts. A detachable rod antenna reduces the need for overhead clearance.

dry cement

The **VEGAFLEX** is ideally suited for measurement of finished cement. The **VEGAFLEX** provides a continuous and accurate measurement regardless of dust, or the filling process.

grains

The **VEGAFLEX** is an ideal solution for the measurement of grains. Corn, soy beans, wheat and other grains can be reliably tracked without the worry of dust interfering with the measurement. Other possible applications include: animal feed, coffee beans, and sugar.

low DK liquids

With very low dielectric constant liquids, the **VEGAFLEX 65** is the perfect solution. Using a co-axial tube antenna, the **VEGAFLEX 65** is able to focus all microwave energy on the product and produce a strong, reliable signal.

plastic pellets

The contacting technology of the **VEGAFLEX** allows for the reliable measurement of plastic pellets. Available in a two-wire loop powered instrument, the **VEGAFLEX** is able to measure up to 98 feet from the mounting point.

general liquids

VEGAFLEX is well suited for general liquid measurement. Areas that require a 3/4" NPT connection are perfect for **VEGAFLEX**.

VEGAFLEX 60: series 60

series 60 products



VEGAFLEX 61
cable antenna
liquids & light solids

Load Capacity:
1/2 Ton

Process Connection:
**3/4" NPT, 1" NPT,
1 1/2" NPT**

**1", 2" & 3"
RF 150# Flange**

Process Temp. Range
-40°F - 302°F

Process Pressure Range
-1 to 40 bar



VEGAFLEX 61
rod antenna
liquids & light solids

Load Capacity:
1/2 Ton

Process Connection:
**3/4" NPT, 1" NPT,
1 1/2" NPT**

**1", 2" & 3"
RF 150# Flange**

Process Temp. Range
-40°F - 302°F

Process Pressure Range
-1 to 40 bar



VEGAFLEX 62
rod antenna
liquids & light solids

Load Capacity:
3 Ton

Process Connection:
1 1/2" NPT

Process Temp. Range
-40°F - 302°F

Process Pressure Range
-1 to 40 bar



VEGAFLEX 62
*cable antenna
liquids & solids*

Load Capacity:
3 Ton

Process Connection:
1 1/2" NPT

Process Temp. Range
-40°F - 302°F

Process Pressure Range
-1 to 40 bar



VEGAFLEX 65
*co-axial rod antenna
liquids*

Load Capacity:
1/2 Ton

Process Connection:
**3/4" NPT, 1" NPT,
1 1/2" NPT**

**1", 2" & 3"
RF 150# Flange**

Process Temp. Range
-40°F - 302°F

Process Pressure Range
-1 to 40 bar

VEGAFLEX 60: programming & configuration



PC/Laptop

Programming with a PC/Laptop offers the highest level of configuration possibilities. visualization and data management are the key benefits of choosing PC programming.

plics® com

The plics com is a removable programming device for all plics instruments. Push button programming with a large screen display allows the user easy access to the gauge.



HART® Handheld Terminal

The VEGAFLEX 60 Series models are available with HART® outputs. All VEGAFLEX 60 models are fully compatible with AMS and multidrop capability. Programming is achieved through a handheld terminal and general device parameters. No special device description (DD) required. Programming functions are limited to generic HART® commands.



VEGADIS 61 Remote Display

The VEGADIS 61 remote display provides visualization up to 82' from a gauge. It is plics ready and provides an access port for pactware programming, or plicscom use.

The **VEGAFLEX** excel's at measurement in industries such as:

- **water, wasterwater & disposal**
- **chemical**
- **plastics**
- **food & beverage**
- **power**
- **grains**
- **cement**
- **petrochemical**

VEGAFLEX 60: *electronics & signal conditioning*

loop powered / 2-wire options

14-36 VDC power and 4 to 20 mA signal carried by 2-wire loop. Approved for division 2 areas.

loop powered & 2-wire I.S non-inciveive

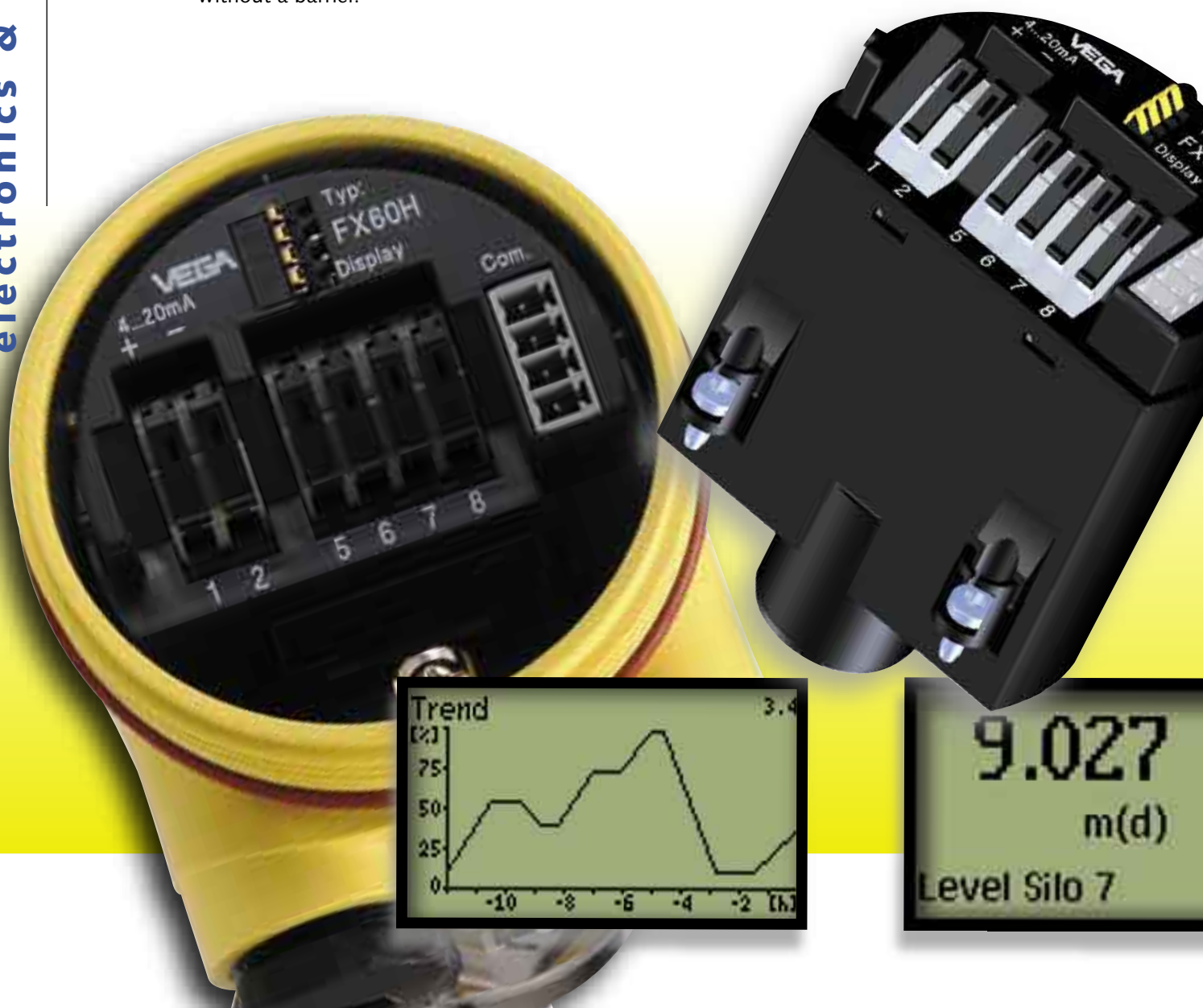
14-36 VDC power and 4 to 20 mA signal carried by 2-wire loop. Approved for Division 1 areas with an external barrier, Division 2 areas without a barrier.

4-Wire

20-72 VDC or 20-250 VAC power used with independent 4 to 20 mA output. Approved for Division 2 areas only.

field protocol

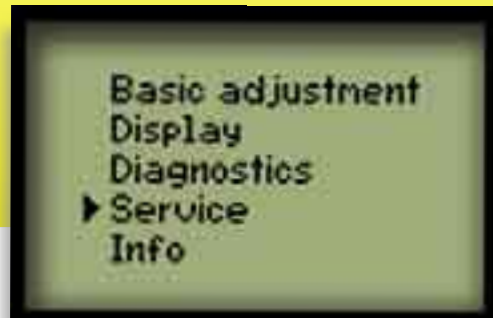
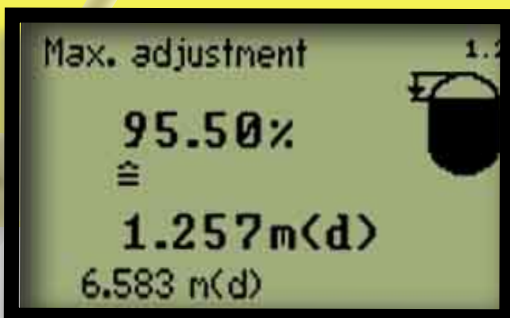
sensor available with HART®, Profibus & Foundation Fieldbus output from the head of the unit.

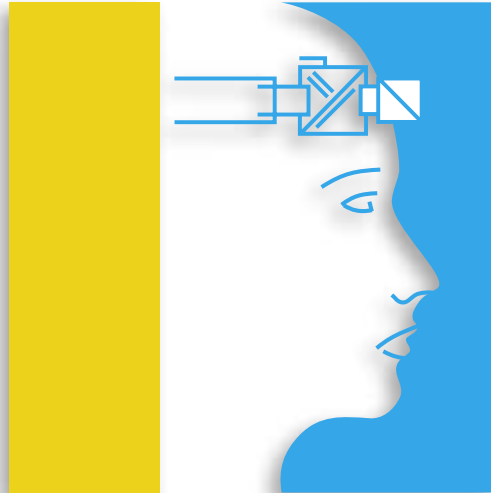




take control of *YOUR* measuring

- Suitable for all instrument series
- Splash proof even with cover open
- Echo & trend curve can be displayed
- For use in gauge head, or remote display
- Mounting in 90° steps
- Data memory capable
- 4-key easy adjustment





PACT*ware*TM

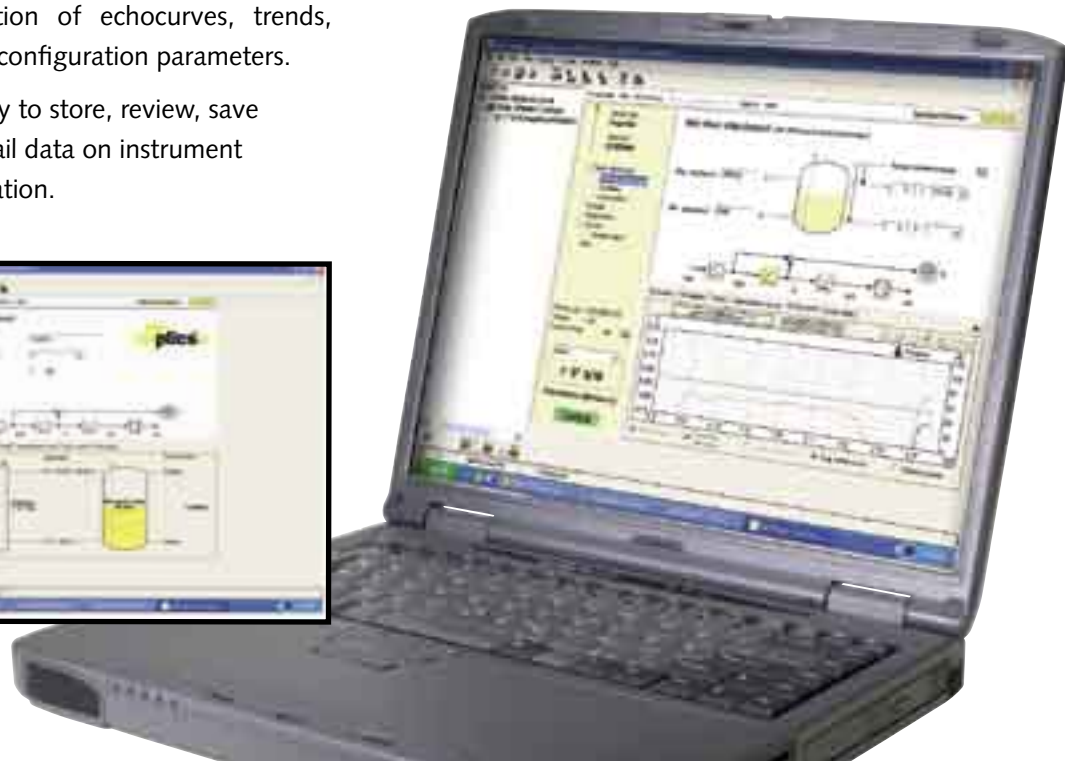
DTM collection

All Ohmart/VEGA plics instruments have a device type manager (DTM) program that runs within Pactware. The DTM provides many benefits including:

- Easy to use windows program with graphic explanations.
- Visualization of echocurves, trends, & vessel configuration parameters.
- The ability to store, review, save and e-mail data on instrument configuration.

software revolution

Pactware is a field device tool, commonly referred to as an "FDT", which is based on field device tool standard 1.2. An FDT is a software program that provides a frame environment for use on a computer or a laptop. This frame environment is used to open, and run configuration programs for field instrumentation. These configuration programs are called Device Type managers (DTM's), and are offered by various instrumentation manufacturers.



at a glance : VEGAFLEX 60

at a glance

VEGAFLEX	61 Rod	61 Cable	62 Rod	62 Cable	65 Rod
liquid measurement	yes	yes	yes	yes	yes
solid measurement	yes	yes	yes	yes	no
maximum length	19.6'	105'	19.6'	196'	19.6'
exchangeable antenna	yes	yes	yes	yes	no
use with heavy bulk solids	no	no	no	yes	no
2-Wire loop powered	yes	yes	yes	yes	yes
coaxial antenna	no	no	no	no	yes
near zone from process connection	6"	12"	6"	12"	2"
unmeasurable area at end of sensor	0"	10"	0"	10"	0"
accuracy	±3mm (0.11")	±3mm (0.11")	±3mm (0.11")	±3mm (0.11")	±3mm (0.11")