VEGA

VEGAFLEX 80 two-wire Foundation Fieldbus

Version, available since	Description	Device Rev.

1.3.0	**Function extensions**
	New functions and modifications:
	
	– Measurement function:
	
	  – Bulk solids applications
	    o Standard deactivation of the automatic false signal suppression
	    o Standard deactivation of the measurement via probe end with Medium/Dielectric constant "Granules, powder, cement/1.5 … 3" and "Dusts, powder, wood chips/< 1.5"
	    o Sensitivity increased at 5 mV with Medium/Dielectric constant "Granulates, powder, cement/1.5 … 3" in the close range
	  – Optimizations for applications with short measuring ranges/probes ≤ 0.4 m
	    o New option "False signal suppresion with uncovered probe"
	    o Reduction of the track number
	  – Optimization of the overfill recognition so that overfillings above the sensor reference point are apparent
	  – To avoid errors during the setup of an interface application, the possibility of a common adjustment or scaling was removed
	
	– Instrument function in general:
	
	  – Optimization of the start behaviour PLICSCOM:
	    During the sensor start and with operating sensor, the sensor TAG and the version information are no longer displayed on PLICSCOM. Due to this, the measured value is displayed approx. 10 s earlier. The version information is available in the menu item "Info"
	  – Adaptation of the adjustment structure to the standardized VEGA adjustment structure
	  – variable positions after the decimal point for the display value
	
	Error corrections:
	
	– Measurement function:
	
	  – For level applications in which the dielectric constant cannot be determined and the HART diagnosis displays an err, this diagnosis can be deactivated via special parameter 23. Then the set dielectric constant is outputted
	
	– Instrument software, in general:
	
	  – When reset "Delivery status" is executed, the "Echo curve of the setup" was not deleted
	  – With instruments with customer-specific instrument setting it sometimes happened that after a reset "Delivery status" the parameters depending on the application setting were not disintegrated correctly and remained in a status as after a reset "Basic adjustment"
	  – When using the PLICSCOM function "Copy instrument settings", the special parameters 37 and 38 were not copied
	  – The selection of the time format 24/12 hours was not translated correctly in the Spanish language
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	− The first operation of the instrument via PLICSCOM caused the entry "Plicscom_VU8.FirstContactEnable" in the parameter modification memory − Deactivation of the echo curve memory with a terminal voltage < 12 V, for a higher stability with lower supply voltage − EMC optimization of the communication to PLICSCOM − Error message F261/4004 is set during the sensor start when min. and max. adjustment are identical − Error in the Chinese and Spanish PLICSCOM menu removed − The switch off time entered in the event memory corresponded always to the time of the last parameter change plus 1 second	

1.2.1
12/2015
	Error corrections:
	
	− Measurement function:
	
	  − For the application "Interface without gas phase (vessel and bypass/standpipe)", a device offset was not taken into account which caused a wrong measured value while correcting through the dielectric constant.
	  − Linearization level measurement:
	  When using the following linearizations:
	    o Cylindrical tank
	    o Spherical tank
	    o Venturi, trapezoidal weir, rectangular weir
	    o Palmer-Bowlus-Flume
	    o V-Notch
	    o User-programmable
	In combination with an adjustment from the basic settings, a measured value deviation iof the linearized percentage value is caused after a restart. Due to this, there is a wrong current if the linearized percentage value was assigned to the current output as output variable.
	  − Linearization interface:
	  When using the following linearizations:
	    o Cylindrical tank
	    o Spherical tank
	    o Venturi, trapezoidal weir, rectangular weir
	    o Palmer-Bowlus-Flume
	    o V-Notch
	    o User-programmable
	In combination with two separate adjustments for level and interface, the linearized level value of the instrument is wrong after a restart, the lin. interface value is correct. During operation, always the output value is wrong which was not modified.
	
	− Instrument software, in general:
	
	  − Error corrected when loading a corrupt delivery status
	  − When using the PLICSCOM function "Copy device settings", the special parameters 37 and 38 were not copied.
	  − At instruments with customer-specific device setting it can haüüen that after a reset Delivery status, the parameters depending on the application setting were not disintegrated correctly and the values have the status like after a reset Basic adjustment.
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Version, available since	Description	Device Rev.

1.2.0, **07/2015**	**Function extensions**
	
	New functions and modifications:
	
	− Measurement function:
	
	  − Optimization of the interface measurement
	    o Easier adaptation to the application
	    o Selection of the next, larger or last echo as interface
	  − Unit change of the reliability from % to unit mV
	  − Introduction of new probe types:
	    o 4 mm cable probe
	    o Coax probe 21 x 6 mm for 250 °C applications
	  − Assistant to determine the dielectric value in bulk solids applications with dust/powder/wood chips
	  − Detection threshold for bypass/standpipe applications increased
	  − Treatment of the freely suspended gravity weight echo
	    o Sensor outputs probe length and not gravity weight begin
	  − Optimization of high temperature probes with reference
	    o Temperature offset reference to product can be configured
	
	− Instrument software, in general:
	
	  − Introduction of the sensor unit "inch"
	
	− PLICSCOM adjustment:
	
	  − Adaptation of the adjustment structure to the standardized VEGA adjustment structure
	  − Additional menu languages: Turkish, Czech and Polish
	  − Lighting switched on as a default setting
	  − Enquiry of the language setting when switching on the sensor for the first time
	
	Error corrections:
	
	− Measurement function:
	
	  − Regulation device offset in case of moisture optimized on the coupling or deactivated in case of couplings with PEEK material
	  − Basic setting "Demonstration" adapted for tests and presentations
	    o Open focussing range
	    o Reduced noise suppression
	  − Focussing range interface on the probe end completely open backwards
	  − Calculation of the reference line adapted
	  − Threshold detection probe end with high temperature probes with reference reduced
	
	− Instrument software, in general:
	
	  − Error while storing switching off times removed
	
	− PLICSCOM adjustment:
	
	Various fault rectifications:
		2

1.1.2, **02/2015**	**Error corrections:** − Measurement function: − Error in the compensation of the spreading speed (concerns only instruments with reference distance). The error caused a considerable measurement error as well as an appropriate diagnosis message.	**1**

Version, available since	Description	Device Rev.
	– Parameters which only depend on the probe length and probe type do not block the application. Hence these are newly written with a restart of the instrument when dissolving the probe dependence. A manual parameter adjustment will get lost.	

1.1.1, 09/2014	**Error corrections:**
	
	– Measurement function:
	  – Optimization of the signal processing with:
	    – Level measurement statically and dynamically
	      o Adaptation of the detection thresholds for different probes and applications, for example interface
	      o Process SIL and NON-SIL measurement function standardized
	      o Improvement of the measurement accuracy of negative echoes
	      o Function first large echo with interface can be activated
	      o Determination of the dielectric figure value also possible without movement
	      o Safeties on the probe end with high temperature probes with reference optimized
	      o Reduction of the threshold for the cancellation of the limited decision range
	    – Automatic probe length determination
	      o Improved accuracy
	      o Probe length determination with positive probe end
	    – Fault signal echo loss was not effective with probe end tracking
	    – Sensor does not indicate empty with empty vessel and active probe end measurement
	    – Ceramic spacers with high temperature coax probes caused a slope error and the accuracy was not maintained, spacers are now compensated
	    – Empty signal with freely suspended cable
	    – Min. amplitude introduced for water sump
	    – Limitation of the measured value to the probe length
	    – Reduction of the safety when creating a gating out of false signals
	  – Dielectric figure value was not taken over into the sensor after calculation through the assistant
	  – Dielectric figure value could not be edited with locked aplication
	  – Adaptation of the application settings for probes with centering weight
	  – Simulation is now also possible when the instrument is in failure mode
	  – Message 811 "Automatic profile was updated" filled the event memory during operation. Message will no longer be entered
	  – Output of the echo information for test certificates was provided in the unit "dB" without positions after the comma, now in the unit mV available
	  – Search range for cable breakage/probe loss could be invalid with short probes
	  – After the probe length determination, a previously activated measuring range limitation became inactive
	  – Focussing range did not stop at the probe end and did not open backwards
	  – Total level could be behind the interface with interface measurement
	  – Probes with centering weight were only available in the bypass
	
	– Instrument software, in general:
		1

Version, available since	Description	Device Rev.
	– With electronics temperatures outside the limits (-40°C, +80°C), no message S600 was outputted – With little energy, now the external enquiries are delayed so that the sensor does not crash – Adjusted units were not taken into account for the configuration of the echo curve memory recordings – After a rest Basic settings in the application Interface, the device identification remains on Interface (although the application was reset to Level); this caused problems in the PLICSCOM menu as well as with VEGAMET – PLICSCOM adjustment: – Various fault rectifications: – FF communication When using a connection without active communication (e.g. redundant connection with a second master), the sensor is requested to send periodically an idle telegram. This was no more the case after approx. 49 days.	

1.1.0, 10/2013	**First version**
	New functions and modifications relating to VEGAFLEX 60:
	
	– Measurement function:
	  – Increased accuracy
	  – Increased repetition rate
	  – Increased sensitivity by probe end tracking
	  – Extension with application parameter adjustment
	  – Automatic update of the false signal suppression
	  – Probe loss detection added
	  – Running time correction with steam boiler application
	  – Determination of the dielectric figure added
	
	– Instrument software, in general:
	  – Lower supply voltages possible
	  – Device status according to NE 107
	  – Event memory added
	  – Function extension for the measured value memory
	  – Real time clock added
	
	– PLICSCOM adjustment:
	  – Modification of the menu structure
	  – Modification of the layout with value changes
	  – The following languages are available:
	    – German
	    – English
	    – French
	    – Spanish
	    – Russian
	    – Italian
	    – Dutch
	    – Portuguese
	    – Japanese
	    – Chinese
		1

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Version, available since	Description	Device Rev.

	− FF communication
	   − 3 AI function blocks available
	   − Additional function blocks
	     − PID
	     − 2 x DI Discrete Input
	     − SC Signal Characterizer
	     − IT Integrator
	     − IS Input Selector
	     − AR Arithmetic
	     − OS Output Splitter	

Legend:

Name	Description
Version	Compatibility version.Function extension version.Error correction version
available since	Month/Year
Device Rev.	Version number of the instrument defined by HART. Consecutive integral number Will be increased if in the "Application Layer" modifications were carried out, e.g. new commands, modifications in the data structure in a command.