VEGA

VEGABAR 80 HART SIL

Version, available since	Description	Device Rev.
1.2.7, 10/2022	**New functions and modifications:** - None **Error corrections:** - Diagnosis function: - Rapid pressure changes over the complete measuring range sometimes led to a restart because the peak value is saved very often	3

1.2.6, 10/2021	**New functions and modifications:**
	- Measurement function:
	  - In the "Density-compensated level measurement" application, the sensor goes into fault as soon as the calculated density is outside the configured limits
	  - In the "Density-compensated level measurement" application, the default value for the "upper sensor covered" threshold is 20 mbar
	  - In the "Density-compensated level measurement" application, the integration time also affects the calculated density
	  - In the application of electronic differential pressure, the reaction time of VEGABAR 82 and VEGABAR 83 was adjusted.
	- PLICSCOM adjustment:
	  - Master and Slave terms removed
	Error corrections:
	- Measurement function:
	  - To compensate for thermoshock, both temperature sensors are approximated by integration in the event of a drift.
	  - HART Command 43 error in trim position correction removed
		3

1.2.5, 03/2020	**Error correction:**
	– Measurement function:
	  – Switching off the thermoshock compensation from temperatures of more than 100 °C or less than 0 °C
	– PLICSCOM adjustment:
	  - Depending on the units set, the limit values in the position correction menus were displayed incorrectly
		3

1.2.3, 09/2018	**Error correction:**
	– Measurement function:
	  – After activation of the electronic differential pressure and restart of the sensor, it could be possible that the the differential pressure was not calculated correctly with PSI measuring ranges
	  – Optimized thermoshock compensation for 400 mbar measuring cells with double seal
		3

Service info plics® software versions

Version, available since	Description	Device Rev.

1.2.2, **12/2017**	**Modifications:**
	− Instrument software, in general:
	   − Optimization of the sensor start and reset times
	Error correction:
	− Instrument software, in general:
	   − Despite high voltage supply, the run up time was 20 seconds instead of 9 seconds
	   − Continuous adjustment tool enquiries during the sensor start partly caused new starts
	− PLICSCOM adjustment:
	   − Error correction in the peak value image in the Chinese menu
	− HART communication:
	   − CMD 6 'Write Polling Address' return a wrong Global Status
	   − In multidrop mode, the sensor outputted a short interference current in the start phase
	   − Due to a too late recognition of the Carrier Detect signal it could happen that HART enquiries were answered too late
		3

1.2.1, **07/2017**	**Error correction:** − Instrument software, in general: − With an overpressure exisiting for a longer time (error status F013) the sensor started sporadically new.	**3**

1.2.0, **04/2017**	**Extensions and error correction of the second production version**
	
	New functions and modifications:
	− Measurement function:
	   − In the application "Density-compensated level measurement" also the differential pressure can be corrected with an offset.
	− Instrument software, in general:
	   − While switching over to electronic differential pressure, the static pressure value is automatically recorded in the measured value memory
	   − The activation of the electronic differential pressure is only possible when PLICSCOM or VEGACONNECT are connected to the sliding contacts
	   − With scaled measured value, the sensor delivers the correct standard values (0 … 100.0)
	− PLICSCOM adjustment:
	   − Quicker display of the measured value after a restart of the sensor or attaching PLICSCOM (the instrument version is no longer displayed)
	− HART communication:
	   − The following additional Common Practice Commands are supported
	     − CMD 33 'Read Device Variables'
	     − CMD 36 'Set Primary Variable Upper Range Value'
	     − CMD 37 'Set Primary Variable Lower Range Value'
	     − CMD 40 'Enter/Exit Fixed Current Mode'
		3

Version, available since	Description	Device Rev.
	- CMD 42 'Perform Device Reset' - CMD 45 'Trim Loop Current Zero' - CMD 46 'Trim Loop Current Gain' - CDM 47 'Write Primary Variable Transfer Function' - CMD 50 'Read Dynamic Variable Assignements' - CMD 51 'Write Dynamic Variable Assignements' - CMD 53 'Write Device Variable Units' - CMD 54 'Read Device Variable Information' - CMD 79 'Write Device Variable' – Additional Device Variables are now supported by the following Common Practice Commands - CMD 34 'Write PV Damping Value' - CMD 43 'Set PV Zero' – In the PLICSCOM menu item "HART mode", the selection "Loop current mode" is assigned by default with "Fixer current (4 mA)" as soon as a HART address unequal "Zero" is adjusted **Error corrections:** – Measurement function: - During the customer adjustment to the adjustment limits, the sensor display failure (F261-12017) after a restart - An adjustment span ≤1 mbar could not be adjusted - With electronic differential pressure, the limit values of the zero adjustment point were -20 % instead of -120 % of the measuring range - After a restart, an offset correction of the static pressure value >1 bar caused an error F260/F261 - In the application "Density", the level unit changes automatically from "m" to "ft", as soon as the density unit is changed from "kg/dm³" to "lb/ft³" - When the scaled measured value was a pressure unit, then wrong standard values were assigned to the second current output - The sensor linearization cannot be changed in the service level – Instrument software, in general: - In the start phase, the measuring cell electronics as switched off and on again after a few seconds - In the start phase, PLICSCOM was switched off for several seconds - Sensor did not start with wrong delivery status - With low energy (9.6 V and 3.8 mA) and quick activated measured value memory, it could happen that the sensor restarted cyclically - A reset to basic settings in error status F041 (no communication with the measuring cell electronics) was setting the adjustment to 0 … 1 bar (the adjustment remains at 0 … 1 bar, even if the communication with the measuring cell electronics was restored) - A reset to delivery status did not reset the physical unit - An automatic offset correction was not entered in the parameter change memory - In the configuration with the second current output, the electronic differential pressure could be activated via PLICSCOM Due to this, the sensor changed to error status and could no longer be operated via PLICSCOM - With the first setup of a spare electronics, the customer-specific adjustment was reset - After a reset to delivery status, the spare electronics with customer-	

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	specific adjustment switched to error status F261-12015 – With the SIL verification, the PIN in clear text was displayed in the list of all non-relevant parameters – For the non safety-relevant parameter "Selection of the positions after the comma int he measured value display figure", wrong verification texts were displayed – With low voltages, the sensor moved cyclically for a short time to error state F013-4036 – With VEGABAR 83 the sensor temperature peak value indicator sporadically stored impermissible values – PLICSCOM adjustment: – For special parameter 7 (source of the measuring cell temperature) an empty field was displayed in the DTM with VEGABAR 83 and VEGABAR 82 with Mini-CERTEC® – In the menu "Min. adjustment", the max. adjustable value of the max. adjustment was displayed (on the bar graph) as max. adjustable value – The special parameters 8 (activate thermo-shock suppression Master) and 9 (activate thermo-shock suppression Slave) were not be taken into account in the function "Copy instrument settings" – The displayed measured value was still flashing in the 3. measured value image even if the value could be displayed again – The selection of the time format 24/12 hours was not translated correctly in the Spanish language – Wrong presentation of the sensor name in Russian language – The first setup of the adjustment caused a wrong entry in the parameter change memory – Various error corrections in the Chinese menu – HART communication: – CMD 015 'Read Device Information' returned fix "linear" as PV_TransferFunctionCode, independent of the adjusted linearization – CMD 6 'Write Polling Address' return a wrong Global Status – During a reset to basic settings, not all HART enquiries were answered – Different HART Commands generated no entry in the parameter change memory	
1.1.0, 10/2015	**Extensions and error correction of the first production version** **New functions and modifications:** – Measurement function: – New application "Density-compensated level measurement" – Additional position correction of the static pressure with electronic differential pressure – Configurable adjustment limits for OEMs, depending on measuring range – Optimization of the starting time (time until the first measured value is outputted on the current output) – Instrument software, in general: – Own error number F042 for communication error with the slave – Electronic differential pressure with second current output via DISADAPT possible – PLICSCOM adjustment:	**2**

Version, available since	Description	Device Rev.

	– Additional menu languages: Japanese and Chinese
	– Variable positions after the decimal point for the display value
	– Enquiry of the language setting when switching on the sensor for the first time
	– Lighting: Standard setting switched on
	– HART communication:
	  – Introdcution of additional Common Practice Commands
	    – CMD34 Write Primary Variable Damping Value
	    – CMD35 Write Primary Variable Range Values
	    – CMD43 Set Primary Variable Zero
	    – CMD44 Write Primary Variable Units
	  – Introduction Burst Mode acc. to HART 5
	  – Multidrop mode permitted as long as the instrument is not SIL locked
	Error corrections:
	– Measurement function:
	  – In the application "Level measurement", the adjustment in "m" does not change, also when entering a new density
	  – In the application "Interface measurement", the position correction must now always be entered in pressure units so that the position correction does not deliver negative metre values
	  – In the application density measurement, the density is limited to "zero" if the slave pressure will be higher than the master pressure
	  – Thermoshock compensation for master and slave can be switched on and off separately
	  – Revision CERTEC® thermoshock compensation algorithm
	– Instrument software, in general:
	  – Simulation functions also without connected measuring cell (sensor in error status F041)
	  – The diaphragm temperature (instead of the rear temperature) is displayed with connected CERTEC® measuring cell
	  – Measured value memory standard setting switched on with 10 seconds
	  – Reset basic adjustments no longer rests the Device name
	  – Reset delivery status resets the units
	  – Device settings will be completely copied from PLICSCOM (settings for the user-defined unit and the adjustment were not copied)
	  – Error when storing the switching off times removed (possibly the time stamp of the last entry in the event memory could be later than the time event of the switching off event)
	  – Optimization Power Management
	– PLICSCOM adjustment:
	  – Various error corrections	

1.0.1, 04/2015	**Error corrections:** – Measurement function: – VEGABAR 81 and VEGABAR 83 - Temperature errors with the pressure value are now compensated correctly	1

Service info plics® software versions

Version, available since	Description	Device Rev.

1.0.0, 07/2014	**First version**
	New functions and modifications relating to VEGABAR 50:
	− Measurement function:
	   − Increased accuracy
	   − Quicker reaction time
	   − Extension with application parameter adjustment
	   − Electronic differential pressure
	   − Thermoshock compensation
	   − Measured values can be configured for the current output
	− 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
	     − Czech
	     − Polish
	     − Turkish
	− HART communication:
	   − HART Revision 7
	   − HART measured values can be configured
		1

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

Name	Description
	commands, modifications in the data structure in a command.