

VEGAPULS 21 - 31 two-wire 4 ... 20 mA/HART

Version, available since	Description	Device Rev.
1.2.2, 12/2022	<p>Error corrections:</p> <ul style="list-style-type: none"> - Support alternative D/A converter on the current output and HART modem - Bluetooth communication: <ul style="list-style-type: none"> o Sensor now allows up to 5 simultaneous connections (but only one communicating VVO) 	2
1.2.1, 05/2021	<p>Error corrections:</p> <ul style="list-style-type: none"> - Measurement function: <ul style="list-style-type: none"> - Error in the close range in the application "Bulk solids" corrected - Extending the additional safety at the end of the measuring range in the "stormwater overflow basin" application to 8 m - Bluetooth communication: <ul style="list-style-type: none"> - Sensor now allows up to 5 simultaneous connections (but only one communicating VVO) 	2
1.2.0, 09/2020	<p>New functions:</p> <ul style="list-style-type: none"> - Measurement function: <ul style="list-style-type: none"> - Extensions for international radio approvals - Increased accuracy of the first measured value - Bluetooth communication: <ul style="list-style-type: none"> - Additional encryption of data transmitted via Bluetooth - On-site adjustment: <ul style="list-style-type: none"> - Support of the Japanese language <p>Error corrections:</p> <ul style="list-style-type: none"> - Instrument software, in general: <ul style="list-style-type: none"> - The scaling unit "torr" could not be set - The first attempt to release the operation with the DTM or the app was aborted with an error, a second attempt released the operation successfully - HART communication: <ul style="list-style-type: none"> - After changing the HART address with HART command 6, the sensor may stop measuring and restart after 2 minutes - The bit "More Status Available" in command 48 was not set if an error, maintenance request, out of specification or function control message was reset 	2

Overview of the software versions

Version, available since	Description	Device Rev.
	<ul style="list-style-type: none"> – On-site adjustment: <ul style="list-style-type: none"> – If an update of the software of the on-site display was interrupted by a power failure, the on-site display permanently showed "Software update in progress" after a restart – No message was displayed on the on-site display during the programming of a new software – The unsupported application "Reactor tank" was set if the application "Agitator tank" was selected – On the on-site display, the first digit in the measured value image was not deleted if the device unit "ft" was used and the measured value jumped from a value ≥ 10.00 ft to a value < 10.00 ft 	
1.1.0, 01/2020	<p>First sales version</p> <p>New functions:</p> <ul style="list-style-type: none"> – Measurement function: <ul style="list-style-type: none"> – Linearization data of the adjustment tools are stored in the sensor, so that they are later available to the adjustment tools again – Negative adjustment values can be set – The adjustment determines now the vessel height – Settings of the application "Pump station" optimized – Default time for error message in case of echo loss set to 15 s (instead of 60 s) – Refined display of the echo curves – Various improvements in signal processing based on experience from field tests – Instrument software, in general: <ul style="list-style-type: none"> – A maintenance requirement message "Inconsistent software configuration" is displayed if the main, Bluetooth and display controller software do not match – Bluetooth and display software is transmitted in compressed form during a software update – During the update of the Bluetooth and display software, a maintenance requirement message "Software update in progress" is displayed – The Power Management was optimized – On-site adjustment: <ul style="list-style-type: none"> – Chinese and Russian languages are supported – Measurement reliability is available as display value – Distance value is displayed as default value in the measured value image (instead of filling height) <p>Error corrections:</p> <ul style="list-style-type: none"> – Measurement function: <ul style="list-style-type: none"> – Configuration option for unsupported linearization curves has been removed – Current electronics temperature could be higher (or lower) than the maximum (or minimum) peak value 	1

Overview of the software versions

Version, available since	Description	Device Rev.
	<ul style="list-style-type: none"> – Instrument software, in general: <ul style="list-style-type: none"> – Sensor did not start reliably at low voltage (12 V) and high temperatures (from 60 °C) – Safety of the access protection procedure was increased – Bluetooth communication: <ul style="list-style-type: none"> – Security of the authentication procedure was increased – HART communication: <ul style="list-style-type: none"> – Error code mapping in command #48 was wrong – On-site adjustment: <ul style="list-style-type: none"> – A fault image was briefly displayed during the start – Display update when editing numbers was revised – Unit "kg/s" could not be selected as flow unit – Sensor-TAG was abbreviated incorrectly if it could not be displayed completely 	
1.0.0, 05/2019	Pilot series	1

Legend:

Name	Description
Version	xx.yy.zz xx: Compatibility version. Will be increased when the compatibility to the previous version is no longer given. Value range 0 ... 99. yy: Function extension version. Will be increased when new functions or function changes were carried out on the previous version. Also errors can have been corrected with a function change. Value range 0 ... 99. zz: Error correction version. Will be increased when only errors were corrected on the previous version. Value range 0 ... 99.
available since	Month/Year
Device Rev.	Version number of the instrument defined by Fieldbus. 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.