



Wireless communication

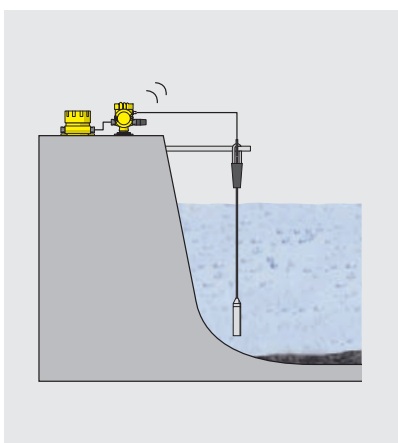


Area of application

Wireless communication devices are used when measured values have to be transferred from remote monitoring stations or mobile tanks to data collection centres. This makes them ideal for use in conjunction with VEGA Inventory System, the software for automatic inventory monitoring. They also enable wireless remote diagnostics and maintenance of their connected sensors.




Principle of operation

Only the transmitting unit is required for wireless communication. It is connected to the sensors via a serial bus cable or via the standard 4 ... 20 mA/HART signal cable. The transmitting unit provides the voltage supply for the sensors, reads out the measured values and transmits them to a data collection centre via the local mobile phone network.






Advantages

Simple operation through the use of open and standardized frequency bands (multi-band technology). High flexibility for the user thanks to free choice of mobile network. Especially fast setup as well as maintenance-free operation when using the VEGA service package "Wireless Data Transmission".

	PLICSMOBILE T81	PLICSMOBILE in the sensor	PLICSMOBILE B81
			
Application	Remote enquiry of measured values and remote parameter adjustment for up to 15 HART sensors	Remote enquiry of measured values and remote parameter adjustment for up to 15 HART sensors	Battery and accumulator unit for PLICSMOBILE
Input	1 to 15 HART sensors	1x plics® sensor (integrated) 1 to 15 HART sensors	1x solar panel
Output	VEGA Inventory System, e-mail, SMS	VEGA Inventory System, e-mail, SMS	Power supply of PLICSMOBILE and the connected sensors
Display/Adjustment	PACTware and DTM/ VEGA Tools app	PLICSCOM/ PACTware and DTM/ VEGA Tools app	–
Technology	GSM/GPRS/UMTS/GPS/ Bluetooth Smart	GSM/GPRS/UMTS/GPS/ Bluetooth Smart	–
Mounting	Wall or tube mounting	Integrated in field device	Wall or tube mounting
Temperature range	-20 ... +65 °C	-20 ... +65 °C	Battery: -10 ... +50 °C, -40 ... +80 °C (lithium) Battery pack: -20 ... +50 °C
Voltage supply	9.6 ... 32 V DC	9.6 ... 32 V DC	Battery: 4x 1.5 V, 4x 3.6 V (lithium) Battery pack: 4x 1.2 V
Approvals	ATEX, IEC	ATEX, IEC	ATEX, IEC
Benefit	<ul style="list-style-type: none"> • Cost-effective solution for remote enquiry of measurement data and remote parameterization of 1–15 sensors • World-wide application through multi-band technology • High flexibility through free choice of mobile network operator • Increased operating time with battery or accumulator via integrated power management 	<ul style="list-style-type: none"> • Cost-effective solution for remote enquiry of measurement data and remote parameterization via radio module integrated in plics® sensor 	<ul style="list-style-type: none"> • Cost-effective solution for autonomous operation of PLICSMOBILE with battery or accumulator supply • Increased operating time with accumulator via integrated charging circuit and connected external solar panels

Wireless communication

	WirelessHART gateway	WirelessHART adapter	WirelessHART battery
			
Application	Receiving unit for wireless measured value transmission and remote parameter adjustment/diagnosis (multiple channel)	Emitting unit for wireless measured value transmission and remote parameter adjustment/diagnosis (single channel)	Power pack for the WirelessHART adapter
Input	Sensors with WirelessHART adapter	1x 4 ... 20 mA/HART sensor	–
Radio path	200 m	200 m	–
Output	1x Ethernet, Modbus or HART	WirelessHART protocol	–
Display/Adjustment	PACTware/DTM or web server	PACTware/DTM	–
Technology	2.4 GHz WirelessHART	2.4 GHz WirelessHART	Lithium-Thionyl-Chloride
Mounting	Wall mounting	On sensor via M20 x 1.5 cable gland	For installation in WirelessHART adapter
Temperature range	-20 ... +60 °C	-40 ... +80 °C	-40 ... +80 °C
Voltage supply	20 ... 30 V DC	7.2 V DC battery	7.2 V, 19 Ah, 136.8 Wh
Approvals	ATEX, CSA	ATEX, CSA	For installation in WirelessHART adapter: ATEX, IEC
Benefit	<ul style="list-style-type: none"> • Simple setup and commissioning via automatic setup of radio network • Secure and reliable data communication through use of a standard protocol • Cost savings in planning and installation through multi-channel structure 	<ul style="list-style-type: none"> • Self-sufficient, energy-saving system with integrated battery/accumulator and power management • Simple installation on existing HART sensors via standard connectors • Cost savings through simple networking of remote HART sensors 	<ul style="list-style-type: none"> • Extension of the operating time through quick exchange of the power pack

