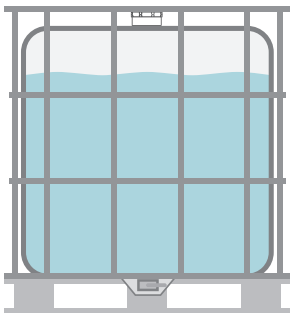
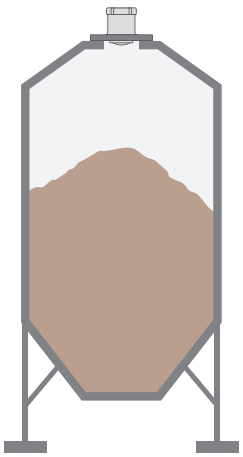
IIoT I Level I VEGAPULS Air series



Autonomous, mobile level measurement: VEGAPULS Air

VEGAPULS Air stand-alone radar sensors measure the levels in silos, mobile containers or liquids in tanks safely and reliably, even in remote or difficult-to-access locations. The battery-powered IIoT sensors communicate their measured values to the cloud wirelessly and require neither expensive cabling nor their own on-site Internet access.



The advantages

- ✓ Easy installation thanks to long-life battery supply and wireless technology
- ✓ Exact measuring results, independent of medium as well as process and ambient conditions
- ✓ Economical IIoT solutions transfer level information to the cloud

	AIR **VEGAPULS Air 23**	AIR **VEGAPULS Air 41**	AIR **VEGAPULS Air 42**
Application	Liquids and bulk solids in plastic tanks without process fitting	Liquids and bulk solids in simple process conditions	Liquids and bulk solids in simple process conditions
Measuring range	3 m	20 m	30 m
Antenna	Integrated	Integrated	Integrated
Process fitting	–	Threads: G1½, 1½ NPT, R1½	Compression flanges DN 80, 3" Adapter flanges from DN 100, 4"
Mounting connection	Adhesive adapter, tensioning strap, ceiling mounting	Mounting strap	Mounting strap
Process temperature	-20 … +60 °C	-20 … +60 °C	-20 … +60 °C
Process pressure	–	-1 … +2 bar (-100 … +200 kPa)	-1 … +2 bar (-100 … +200 kPa)
Accuracy	±5 mm	±2 mm	±2 mm
Frequency range	W-band (80 GHz)	W-band (80 GHz)	W-band (80 GHz)
Signal output	NB-IoT (LTE-CAT-NB1), LTE-M (LTE-CAT-M1), LoRaWAN	NB-IoT (LTE-CAT-NB1), LTE-M (LTE-CAT-M1), LoRaWAN, Bluetooth	NB-IoT (LTE-CAT-NB1), LTE-M (LTE-CAT-M1), LoRaWAN, Bluetooth
Display/adjustment	VEGA Inventory System	VEGA Tools app, PACTware/DTM, VEGA Inventory System	VEGA Tools app, PACTware/DTM, VEGA Inventory System
Voltage supply	Integrated batteries 2x 3.6 V (lithium)	Integrated batteries 1x 3.6 V (lithium), exchangeable	Integrated batteries 1x 3.6 V (lithium), exchangeable
Approvals	ATEX, UKEX, IECEx	–	ATEX, UKEX, IECEx
Benefit	✓ Easy mounting “outside”, as it is optimised for measurement through the tank top	✓ Minimal installation work thanks to self-sufficient supply and wireless interface	

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	LoRa Gateway (indoor)	LoRa Gateway (outdoor)
Application	Gateway for connecting LoRaWAN sensors to VEGA Inventory System	Gateway for connecting LoRaWAN sensors to VEGA Inventory System
Input	LoRaWAN	LoRaWAN
Output	GPRS/UMTS/LTE (2G, 3G, 4G)	GPRS/UMTS/LTE (2G, 3G, 4G)
Display	LED	LED
Mounting	Wall mounting	Wall and tube mounting
Temperature range	-20 … +55 °C	-40 … +60 °C
Voltage supply	100 … 230 V AC, 50/60 Hz	100 … 230 V AC, 50/60 Hz, PoE adapter
Benefit	✓ Easy setup and commissioning through preconfigured settings	

VEGA Inventory System

Application	System for inventory monitoring as well as remote enquiry and visualization of measurement and location data
Recommended operating systems	▪ VEGA Hosting Service: independent of operating system ▪ Local server: MS Windows Server 2016 or 2019 as well as MS SQL Server 2014 or higher
Adjustment	With standard web browser
Versions	▪ VEGA Hosting Service (VH) ▪ Local servers (LS)
Technology	Web-based
Benefit	✓ Simple centralized inventory monitoring and management ✓ More transparency through connected assets and facilities ✓ Avoidance of production stoppages and increased supply security ✓ Reduction of transport costs with optimized logistics planning