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Measuring principle	Measurement	Level indicator	Media	Measuring range	Tanks	Application
Mechanical		 MT-Profil R 	<ul style="list-style-type: none"> Fuel oil EL, L Diesel fuel Biodiesel Water Electrically conductive and non-conductive liquids 	0/150 to 0/250 cm	Unpressurised indoor tanks	Level measurement with float Reversible scale for adaptation to tank height and easy reading No power/no battery required
		 Unitel   	<ul style="list-style-type: none"> Fuel oil EL, L Diesel fuel 	0/900 to 0/3,000 mm	Unpressurised indoor or outdoor containers	Pull-to-read level measurement with remote measurement up to 50 m Dual scale 0/100 % volume for rectangular and cylindrical tanks No power/no battery required
Hydrostatic	Continuous	 DTA 10 / DTA 20 E   	<ul style="list-style-type: none"> Fuel oil EL, L Diesel fuel Biodiesel Water Non-corrosive media (density 0.5 to 1.5 g/cm³) 	0/400 cm (fuel oil) 0/350 cm (water)	Unpressurised indoor or outdoor containers	Push-to-read level measurement and signalling of a minimum level during measurements Battery operation DTA 20 E: EnOcean® inside
		 DIT 10   	<ul style="list-style-type: none"> Fuel oil EL, L Diesel fuel Biodiesel Water 	0/400 mbar Indication: Litres, m³, %, mm	Unpressurised indoor or outdoor containers	Push-to-Read level measurement Battery operation
		 Tank Control 10   	<ul style="list-style-type: none"> Fuel oil EL, L Diesel fuel Biodiesel Water 	0/400 mbar Indication: Litres, m³, %, mm	Unpressurised indoor or outdoor containers	2 channels Level measurement and alarms in the event of minimum or maximum levels, level differences, backwater and level control
		 HydroFox® DMU 07	<ul style="list-style-type: none"> Conductive and non-conductive liquids 	0/40 mbar to 0/20 bar	Unpressurised indoor or outdoor containers	4–20 mA or 0–10 V Level measurement with mechanically insensitive, high-precision ceramic sensor Optional Ex version optional 
		 HydroFox® DMU 08 	<ul style="list-style-type: none"> Water Fuel oil EL, L, M Oil/water mixtures Neutral liquids 	0/100 mbar to 0/400 mbar	Unpressurised indoor or outdoor containers as well as level measurement in wells, bodies of water	4–20 mA or 0–10 V Compact and sturdy level probe, stainless steel design Optional Ex version optional 
		 HydroFox® DMU 09 	<ul style="list-style-type: none"> Conductive and non-conductive liquids Extremely corrosive media 	0/40 mbar to 0/10 bar	Unpressurised indoor or outdoor containers as well as level measurement in open containers	4–20 mA Robust, chemical-resistant level probe made of plastic Optional Ex version optional 

Measuring principle	Measurement	Level indicator	Media	Measuring range	Tanks	Application
Capacitance	Continuous	 CapFox® EFT 20	<ul style="list-style-type: none"> Conductive and non-conductive liquids Powdery media Bulk solids Adhesive, corrosive media 	Up to 6,000 mm	Open or closed containers, indoor or outdoor For tank heights from 100 mm	4–20 mA or 0–10 V Level measurement with electrode as flexible probe, coax probe or rigid rod probe – also partially or fully insulated Optional Ex version 
Guided micropulse		 PulsFox® PMG 20	<ul style="list-style-type: none"> Conductive and non-conductive liquids Powdery media Bulk solids Adhesive, corrosive media 	Up to 40,000 mm	Open or closed containers, indoor or outdoor Ideal for changing media	4–20 mA / HART Level measurement independent of changes in pressure, temperature or density. Electrode as flexible probe, coax probe or rigid rod probe – also partially or fully insulated Optional Ex version 
Ultrasonic		 SonarFox® UST 20	<ul style="list-style-type: none"> Conductive and non-conductive liquids Mushy and pasty media Sludge Waste water Adhesives and resins 	Up to 20,000 mm	Open or closed containers, indoor or outdoor	4–20 mA / HART Non-contact level measurement without influence of type, density or temperature of the medium Optional Ex version 
Mechanical	Point level	 Level switches Minimelder / Maximelder	<ul style="list-style-type: none"> Water Fuel oil EL, L, M Oil/water mixtures Neutral liquids 	Min./max. level detection	Open or closed containers, indoor or outdoor	Single-channel For alarms in the event of minimum or maximum levels EnOcean®-ready
PTC thermistor		 Overfill prevention system UFS 01 acc. to WHG	<ul style="list-style-type: none"> Water-polluting liquids (flash point > 55 °C) 	Max. level detection	Open or closed containers, indoor or outdoor	Single-channel Signals when the maximum level is reached Approval: DIBt: Z-65.11-193, Z-65.11-185
Capacitance		 CapFox® ENT 21	<ul style="list-style-type: none"> Conductive and non-conductive liquids Powdery media Bulk solids Adhesive, corrosive media 	Min./max. level detection	Open or closed containers, shafts or pipes, indoor or outdoor	PNP, NPN or 2-wire (EN 60947) Point level detection with measurement electrode as flexible probe or rigid rod probe (MS) – also partially or fully insulated Optional Ex version 
Conductivity	 CoFox® ELT 8	<ul style="list-style-type: none"> Conductive liquids (Waste) water Emulsions Non-adhesive, low-viscosity media, without foam formation 	Response threshold 2.5 to 60 kOhm, fully adjustable	Indoor or outdoor containers	For point level detection – can be used as level control for filling or emptying with 2 probes 24 V version	
Vibration fork	 VibraFox GVG	<ul style="list-style-type: none"> Conductive and non-conductive liquids (density from at least 0.7 to 2.5 kg/dm³) Non-adhesive, corrosive media 	Min./max. point level detection	Open or closed containers, shafts or pipes, indoor or outdoor	PNP or 2-wire For point level detection at a max. viscosity of 10,000 mPa • s WHG approval Approval: DIBt: Z-65.11-412	

i The suitability of a specific type of measuring device for an application is determined by a great variety of factors. Please note the information in the operating instructions. The level experts at AFRISO will be happy to help you with your selection.

LEVEL MEASUREMENT – POINT LEVEL DETECTION

Universal, variable **level indicators** for a great variety of requirements in numerous industries

AFRISO level indicators allow for continuous measurement and point level detection in tanks, silos, mobile containers or pipes in industrial and process engineering applications.

Depending on the application, the medium or the required approval, you can choose between different measuring principles. The suitability of a specific type of measuring device for an

application is determined by a great variety of factors – the level experts at AFRISO will be happy to help you with your selection.



CONTINUOUS

AFRISO uses mechanical, pneumatic, capacitive or hydrostatic devices as well as devices based on ultrasound or

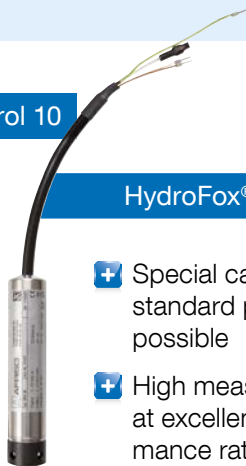
guided micropulse (TDR) for continuous measurement and monitoring of the level of liquids and bulk solids. The proven

measuring principles ensure reliable and precise results.



Misuratore di livello TankControl 10

- + Graphical indication of consumption and remaining range
- + With visual/audible alarms, Acknowledge key and 2 relays



HydroFox® DMU 08

- + Special calibration for all standard pressure units possible
- + High measuring accuracy at excellent price/performance ratio



HydroFox® DMU 07

- + Mechanically insensitive ceramic sensor
- + Small temperature error and high over-pressure safety



PulsFox® PMG 20

- + Stable, reliable measurement even with foam, vapour, dust or turbulent surfaces of the medium
- + Robust housing for rough ambient conditions

Programming display PD 20

Highly useful:
The PD 20 programming display provides menus for device adjustment and serves as a local display. PMG 20 and UST 20 can be adjusted simply by pressing a key, even if there is no medium in the container.



SonarFox® UST 20

- + Easy adjustment even without medium
- + Suppression of interference signals



CapFox® EFT 20

- + Easy adjustment via magnetic pin
- + Robust stainless steel housing, degree of protection IP 68 with fixed cable connection

Pressure transducer HydroFox® DMU 07:
Thanks to the flush diaphragm on the insensitive ceramic sensor, level measurements can be carried out in contact with the medium without any transmission liquid.



POINT LEVEL

To help avoid overflowing or excessive emptying of containers, AFRISO offers capacitive and conductive devices as

well as vibration level switches. It is also possible to protect pumps from running dry or to implement a level control for

filling and emptying.



CapFox® ENT 21

- + Compact design
- + For temperatures of the medium of up to 300 °C



CoFox® ELT 8

- + Min. or max. fail-safe mode adjustable
- + Level control for filling and emptying via a process connection (multi-rod probes)



VibraFox® GVG

- + WHG approval
- + High resistance to chemicals



Min./max. level detection with CapFox® ENT 21. Calibration for the medium is performed via a magnetic pin in a very easy way.



Multi-channel process display with data logger and switching outputs in control cabinet, programmable according to customer requirements.

Indication and evaluation

Numerous components, devices and communication systems for data transmission via GSM are available for visualisation and processing of

measured variables.



Multifunctional transducer MFU 12/14, programmable as required, 2 analogue outputs and 2 or 4 contact outputs



Digital display unit DA 10/12/14, 2 or 4 relay outputs, for control panel mounting



Multi-channel process display MPA 10 with integrated data logger, 8 analogue standard signal inputs, touchscreen operation and remote operation, 40 configurable display elements



Digital plug-in display DA 06 for transducers with 4–20 mA, output and ISO 4400 connector or M12 x 1 connector



Digital display and control unit VarioFox® 24, 4 switching outputs



Signalling devices, such as horns or warning lights



WATCHDOG-LINE alarm units for the detection of liquid accumulations, leakage or gases



Additional alarm unit ZAG 01, audible / visual alarms, 2 voltage-free changeover contacts



Event reporting systems EMS 220 / 442, monitoring of 2 (4) analogue measured values and 2 (4) digital limit values, alarms and measured values are transmitted to mobile phones via GSM

Non-contact level measurement with ultrasonic measuring instrument UST 20 and digital display unit VarioFox® 24 as standalone complete solution for individual tanks and small tank farms.

INDIVIDUAL PLANT ENGINEERING

Customised solutions from AFRISO

On request, we develop and manufacture complete solutions and take care of the entire engineering for you, all the way to the production of the finished system. Going against the general trend, we insist on a high degree of vertical manufacturing integration from our own tool design and construction department all the way to fully automatic assembly machines for electronic components. This makes us fast, flexible and independent.



AFRISO – more than 150 years of expert knowledge

The company

AFRISO, founded by Adelbert Fritz in Schmiedefeld, Germany in 1869, is an innovative, medium-sized company with a total staff of over 1,300 worldwide, over 650 of which are employed at the four German sites.



Headquarters in Güglingen (Germany)



AFRISO training centre



AFRISO logistics and service centre



Traditionally, we manufacture measuring and control devices for temperature and pressure. For more than 50 years now, we have also been manufacturing measuring, control and monitoring devices and systems for environmental protection:

- Level indicators
- Overfill prevention systems
- Leak detectors
- Fittings for heating systems
- Flue gas analysers

Our leading-edge, market-oriented products and innovations result from our comprehensive know-how, a highly motivated and qualified staff and the fact that we understand what the market needs.

Our portfolio covers everything from a comprehensive range of standardised, proven off-the-shelf products all the way to high-grade customised solutions.

- Research and development
- Tools and equipment making
- Highly versatile and rational production
- Highest quality levels
- National and international approvals

AFRISO stands for leading-edge brand products to meet your requirements.

Environmental management as per ISO 14001 is a matter of course for AFRISO.



For detailed information on our product range, find our online catalogue at www.afriso.com



We ensure that you get professional, personal service. You can reach your contact person on: www.afriso.com/contact



Technology for Environmental Protection
Measuring. Controlling. Monitoring.



AFRISO