



**EMKOMETER** s.r.o.

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### Individual solutions for global markets

# The EMKOMETER company

Over the last 30 years, we have seen rapid development in field instrumentation. We are excited to be a part of this evolution. State of the art technology is helping our customers to optimize their processes, improve control, maximize safety and sustainibility.





Jiří Kroužek founder of the company

It has been long since we got involved in measurement offlow and level. We are aware of how important these measurements are to our customers. They are often directly affecting overall performance of the processes.

Our products are designed using the best available materials and technology. With focus on detail we always ask how to do it better. Short time profit is not the priority. We are happy to see that some of our products are still in operation after 20+ years and customers are coming back.

We are thinking in long term. Regarding products, relationships and company development. In house R&D, production and sale support provides unique flexibility hardly to be found anywhere else. Our company was established by Mr. Jiří Kroužek in Czech Republic in 1990. It is independent family operated company with worldwide presence and references.

Bespoke products and solutions have always been an advantage. Many of them became standard in the course of time and we are pleased to offer wide range of products and services nowadays.

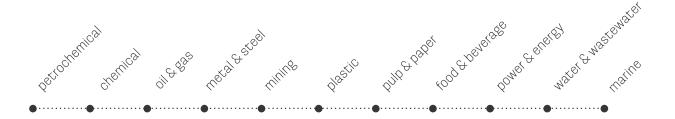
# products & services

company portfolio

Your needs are our challenge flow meters level indicators **MEASUREMENT PRODUCT & SERVICES MACHINES & PRESSURE EQUIPMENT** all in one place EMKOMETER Co. is the leading manufacturer of flow meters and level indicators in the Czech Republic. pressure equipment We specialize in developing and manufacturing various level indicators for pressure and nonpressure vessels, pressure equipment, service and consultancy. These devices can also be used in extreme environments with high temperatures, pressures, explosive atmospheres and corrosive substances. We also offer a wide range of flow meters including rotameters, electromagnetic flow meters, spring flow meters, paddle type flow meters, orifice plates, nozzles, and various flow switches. In the past 28 years our company has successfully custom production implemented thousands of measurements worldwide.

### aplication

in industry



### communication

protocol standards











### competency

approvals & certification

ČSN EN ISO 3834 - 2:2006 ČSN EN ISO 9001: 2009 ČSN EN ISO 14001: 2005

2014 / 68 / EU

MODUL H I-61 - 2524 / 15 / TZ

FTZÚ 05 ATEX 0266

FTZÚ O2 ATEX O453X

FTZÚ O2 ATEX O454X

FTZÚ O2 ATEX O455X

FTZÚ O5 ATEX O017X

FTZÚ 11 ATEX 0193X

FTZÚ 09 ATEX 0001X

TCM 142/14 - 5187

CERTIFIKÁTY:

GOST, EAC, DIN, ASME































### LEVEL

level indicators

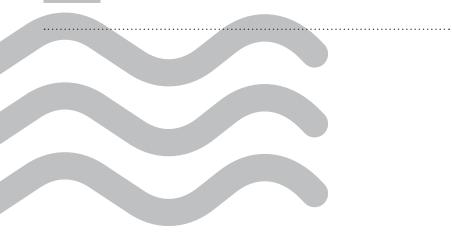


There are numerous applications requiring different parameters. It is possible to measure level of virtually any liquids, solids or interfaces using the right method.

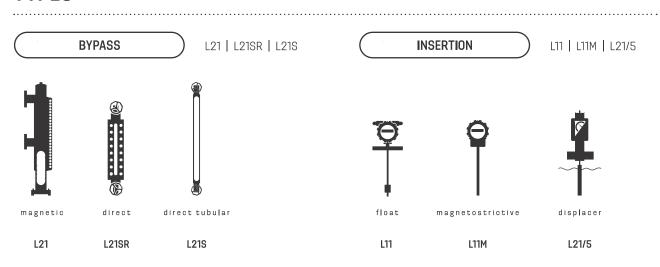
There is a number of simple local indicators that can be easily extended by a variety of accessories. Specialized instruments feature both analog and digital communication. Safety critical applications can be covered by SIL3 certified safety limit switches.

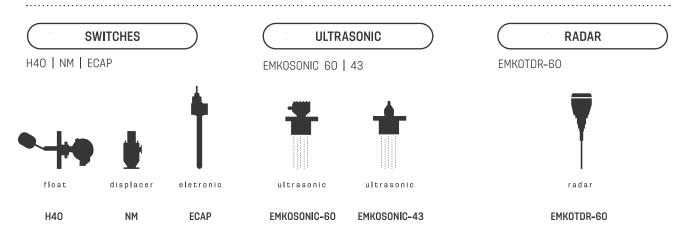
Common tasks include measurement of level of steam condensate in boilers, chemicals in process industry, sludges in wastewater and many others.

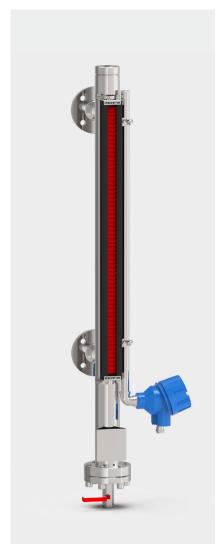
Since 1990 we have also developed number of customer specific applications that defined new standards in the field. (e.g. integrated insulation and heating of bypass level indicators)



#### **TYPFS**







### **MAGNETIC**

L21

Have becone of of the most popular indicators thanks to its reliability and modularity. Wide range of accessories includes switches, el. outputs and heating.



L11

Float operated instrument with connection from top. Available outputs are: countinous, multi point switching, temperature.



#### **DIRECT** L21SR

Direct level indicator for rough conditions. Can be equiped with reflexive glass, transparent glass and also MICA shields and backlight.



### **DISPLACER**

L21/5

Level or density measurement based on buoyant force from well know Archimedes' principle.



#### **DIRECT TUBULAR** L21S

Simple tubular glass indicator for temperatures up to 200°C and pressure 16 bar. Comes with stainless steel protective cover.

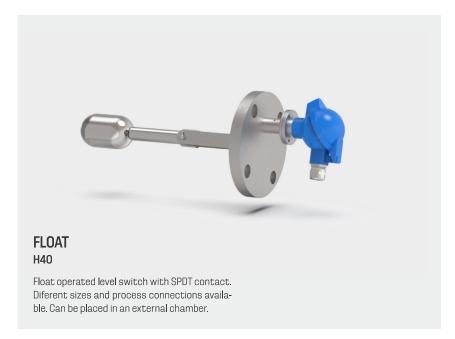


### **MAGNETOSTRICTIVE**

L11M

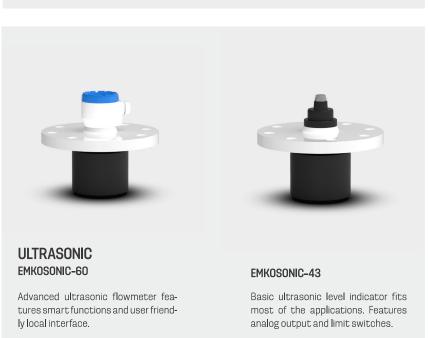
Advanced float operated level meter featuring continous output using magnetostrictive principle. Up to 0,1 mm accuracy.









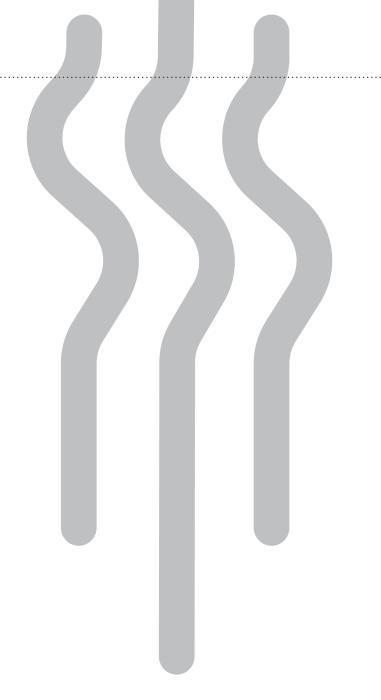




### Guided wave radar features accuracy up to 1 mm and is largely independent on most of the fluid properties. Can be placed in bypass chamber.







State of the art technology for efficient flow measument

The techniques for precise measurement of flow are increasingly important today. Fluids being measured and the energy involved in their movement may have a high monetary value. Other related key aspects are process effectivity, safety, environmental protection and quality control.

Applications include dosing, filling, monitoring and control of various liquid across wide range of industies. Range of the instruments available is extending and selecting right method has direct impact on related costs. Therefore it is important to understand both - the process and instruments in detail. Water, steam, air, gas, chemicals or oil. There is no universal method to measure all but measuring any fluid becomes easy with right equipment. There you can rely on our instruments.



### **TYPES**



AF | BF | CF | DF | NF | Z | EZ | EF | MRB | DUG | VEP | RW | RV | P | PP | PPP | K



rotameter AF | BF | CF

DF | NF



rotameter Z | EZ



plastic rotameter EF



MRB



 $f\,I\,o\,w$ indicator DUG | VEP



monitor RW | RV





rotameter

К

P | PP | PPP

**ELECTROMAGNETIC** 

H3 | F31 | F51

ULTRASONIC

UF | UFH



flow / heat meters F3 | H3



flow meters F31



battery powered insertion F51



flow meter / heat meter UF



hand held

UFH

**DIFFERENTIAL PRESSURE** 

EC | ED | EV | MULTINOZZLE | V CONE | 4-HOLE ORIFICE



orifices EC



nozzles ED



venturi tube E۷



nozzles



v- cone



4-hole orifice

VORTEX - THERMAL - CORIOLIS )

VORTEX | THERMAL | CORIOLIS











# COMPACT ROTAMETER z | EZ

Compact panel mount version is suitable for OEM use. Wide range of materials ensures best fit for the application. Integrated control valve allows easy flow regulation.



INDUSTRIAL ROTAMETER

Flowmeters with float and glass cone

are designed for measuring the volumetric or mass media flow. The flow

rate is read directly on the meter.

AF | BF | CF | DF | NF

### PLASTIC ROTAMETER

Best fit for plastic pipelines, widely used in water treatment and chemical industry. Connections to plastic flow pipe are by welding, gluing, flange or on request by a thread.



# REGULATING BLOCK MRB

Standard accessory used in cooling (heating) of compression molds for plastics. It is flow meter, thermometer and valve combined.



# FLOW INDICATOR DUG | VEP

Mechanical flow indicator with a sight glass for liquids and gases. Flow moves the piston and indicates the current flow. Various eletrical output available.



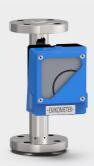
#### FLOW MONITOR RW | RV

Based on variable cross section between the cone and ring to which the spring is attached. Magnet in the float actuates the sensor, switch or indicator box. For pressure up to 450 bar.



# FLAP TYPE P | PP | PPP

Paddle flowmeters are designed for flow monitoring of liquids and gases, e.g. in the cooling, tempering circuits as well as for verifying the operation of the pupms, ventilators etc.



### METAL ROTAMETER

K

All-metal flow meters with float - type K are used for signaling and measuring of instant flow, total volume of fluids. Wide range of electrical outputs.





#### FLOW / HEAT METERS F3 | H3

Based on electromagnetic principle and equiped with temperature sensors on the input and output, heat transfer can be measured.





### FLOW METER / HEAT METER UF + SENSOR US

Suitable for non-conductive liquids. Ability to measure heat transfer. Wide range of sensors including clamp on, in line and insertion.





### **FLOW METERS**

F31

Our newest electromagnetic flowmeter featuring robust diecast casing is compatible with wide range of sensors.



### **NOZZLES** ED

Nozzles offer better reliability and lower pressure drop than orifices.



#### **BATTERY POWERED** INSERTION

F51

Battery power with lifetime 5+ years and possibility of GSM communication makes it easy to measure in remote areas. Integrated temperature and pressure measurement.



### **HANDHELD**

UFH

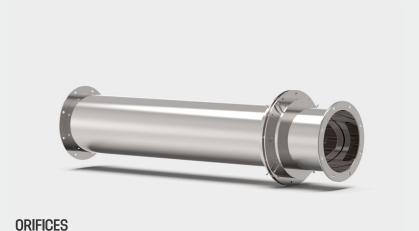
Battery powered, designed for instant measurements using clamp on sensors. Set comes with sensors from DN15 to DN7000.



### **VENTURI TUBE**

E۷

When it comes to minimizing pressure drop, venturi tube is the best option.



EC

Classical method of measurement proven over the decades and standardized. For measurement of steam, liquids and gases.



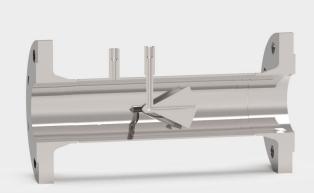
#### 4-HOLE ORIFICE

With reduced required straight runs, multihole orifice can fit existing installa-



### **MULTI NOZZLE**

Specialized DP elements to be used in test equipment, e.g. ISO 5801 fan test-



#### **V-CONE V CONE**

An advanced diferential pressure element defined by ISO 5167-5 standard since 2016. Features high relibility, repeatability, accuracy and low pressure drop. It is ideal for tight-fit and retrofit instalations.



### **VORTEX**

Vortex flometers are often default choice when it comes to measurement of the steam of non-conductive liquids.



### **THERMAL**

Based on heating element pair it can be used for both liquids and gases for flow monitoring and control.



### **CORIOLIS**

The most accurate flowmeter with astonishing response. Outputs mass flowrate directly. Independent density measurement. Volumetric ouput.



# **TEMPERATURE**

Temperature measurement products provide innovative solutions even for challenging applications.

> Temperature is one of the most common types of physical measurements. You can measure temperature in various environments. Depending on the desired accuracy, range, and expense, you have several sensor options for measuring temperature. Emkometer offers a wide variety of devices for you to choose from to make temperature measurements. Many instruments nowadays have integrated temperature measurements as a secondary variable.



#### **SENSORS**

Wide range of sensors includes Thermocouples, Thermistors amd RTDs. Right selection ensures precise measurement. Various process connection options.



#### **TRANSDUCERS**

Available in head mount or DIN enclosures. Analog output with optional HART® protocol, FOUNDATION Fieldbus™ or PROFIBUS PA interface.



#### **ASSEMBLIES**

Assembly consist of sensor and transducer. It comes precalibrated and enables easy plug&play installation.



# **PRESSURE**

Precise and stable pressure measurements in virtually any environment.



### SUBMERSIBLE PROBES FOR LEVEL MEASUREMENT

Hydrostatic submersible sensors can be used in non pressurized reservoirs as well as in drill holes and wells.



#### **CONDENSING CHAMBERS**

Are mainly used for steam measurement.



#### PRESSURE TRANSDUCERS

Process pressure transducer can be also used for level measurement. Suitable for gases, liquids and steam.

There are 4 types of sensors available - stainless steel silicon sensor, ceramic thick film sensor, stainless steel sensor and capacitive ceramic sensor. That gives us an advantage in choosing the one that fits best the application. Apart from pressure, we can measure level of liquids and also flow. Especially DP flow measurement methods rely on accurate differential pressure measurement.

#### **DIFFERENTIAL PRESSURE**

DP transmitters are widely used for flow measurement in combination with primary elements. Level measurement is also possible.







# PRESSURE EQUIPMENT & VESSELS

From design to realization



#### STAINLESS STEEL TANKS

Pressurized and non-pressurized tanks for various liquids. It can be equiped with agitator and integrated level measurePressure and non-pressure vessels are designed and manufactured according to our customers' specifications and requirements. All products are made in compliance with applicable standards and government regulations or according to our customers' other requirements (e.g. ASME design code). We also supply accessories for these vessels, ventilation/ exhaustion systems, pipelines, steel structures, mixers, sight glasses, level gauges, level switches, heating and insulation systems. All production processes are in compliance with PED 97/23 EC and 2014/68/EU requirements and manufacturing standards, e. g. CSN EN 13445-3, 13480, 12952 etc. Our company is certified to manufacture under the supervision of a notified body. Commonly used materials are 1.4301, 1.4571 stainless steel and P235GH, 16Mo3, P91 carbon steel. Other materials or teflon lining can also be used to ensure chemical





Turnkey delivery is also possible.



#### **ACCESORIES** Wide range of accessories ensures maximum efficiency and safety of the instruments. Emkometer is also able to customize products and solutions according to the needs of application.

To make it work properly



### **MECHANICAL**

Flanges, manifolds, armatures, valves, mechanical structures, adapters, reducers, condensation chambers and much more.



### **ELECTRICAL**

Power supplies, intrinsically safe barriers, transducers, junction boxes, heating and everything you might need for your instrument to work correctly.



#### CONTROL

Simple control systems, visualization, data aquisition systems.



# **DATALOGIO**

Smart instruments nowadays read multiple variables that can be easily represented in form of charts and tables.

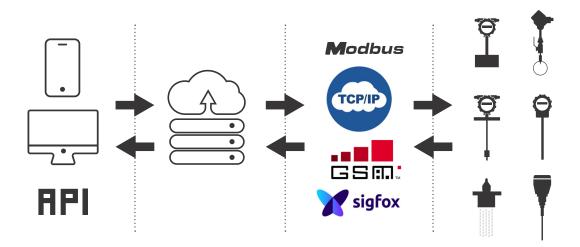
Is a data acquisition and management system. It enables 24/7 control of your sensors. Data can be easily managed and Datalogio keeps the track of the records and informs you if data is out of range.

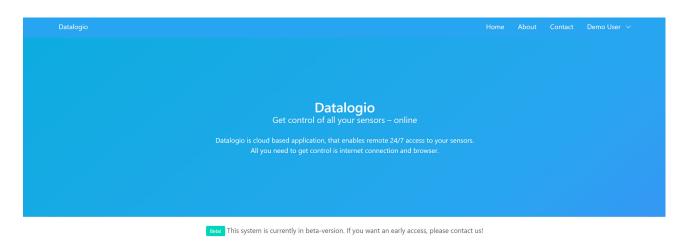
Is a simple cloud based application with user friendly interface. It can be accassed anywhere on any device. Every customer has its own profile with its active role. Just log in and see your sensors, customize them with a name with the localization on the map, and with all your important notes. Mark comments, set-up tasks and export important data.

Takes advantage of modern technologies including IoT and Sigfox. Thanks to these technologie it is possible to remotely managed battery powered instruments in distant areas without power grid.

#### **HIGHLIGHTS**

- safety and reliability
- simple user interface
- scalable architecture with easy driver implementation
- API for 3rd party SW
- possibility of connection devices from different manufacturers
- low cost operation
- various data exports







#### Simple and safe

Encrypted database architecture guarantees safe and fast access to your data. Google map interface makes it easy to locate your sensor. Intuitive user interface makes it easy to control.



#### Universal interface

TCP/IP or GSM/GPRS interface together with complex list of accessories and transducers makes it easy to connect to virtually any type of the sensor. This includes Modbus, M-BUS, RS-232, HART and analogue types of sensor. All your measurements at one place.



#### Get in control

Communication interface enables to configure your sensor, see list of errors, trend graphs and much

Data is yours! We just take care of them. You can access and export any data you want anytime.

Datalogio Home About Contact Demo User ∨

#### Sensor detail

