

EGE

For over 35 years EGE Elektronik has been developing and producing special and standard sensors for industry: flow sensors, level sensors, proximity sensors, detectors, pressure and temperature sensors.

EGE has specialised experience in the development and production of reliable and robust sensors for extreme environmental conditions. The sensors are continually improved in close cooperation with our customers. As a pioneer in electronic flow sensors, EGE features a wide range of flow sensors for a multitude of applications. Modifications – minor and major, are our speciality, even in small quantities. Production and development are located in Germany. We select our suppliers based on strict quality standards.

With our flexible and powerful/capable production we are able to supply variations in both smaller and large quantities at short notice EGE has a global network of competent partners who are trained regularly and keep in close contact with the head office in Germany. For even in the internet age we consider on-site advice and service essential. In this way we help you to stand out from the competition.

Flow sensors

As a pioneer of electronic flow monitoring EGE offers a large variety of sensors for flow monitoring and measurement. Electronic flow sensors operate wear-free and without pressure loss. In-line sensors offer flow monitoring and measurement without any components protruding into the medium. Devices with additional temperature monitoring, hygienic connections and special materials are available.

In addition we offer sensors for explosive environments (ATEX).

Air flow sensors

EGE compact air flow sensors are especially suited for flow monitoring in air conditioning technology, exhaust air systems, control cabinet ventilation, filter monitoring and applications in dust and gas explosive environments.

Level sensors

Besides robust sensors for machine and systems construction, EGE offers level sensors for aggressive media, extreme temperatures and dust and gas explosive environments.



Classic favourite:
the flow monitor SC 440



EGE: global representation



**MADE IN
GERMANY**



Proximity sensors

EGE inductive proximity sensors are designed for rough industrial use, high reliability and long service life. They include standard sensors with increased resistance against electromagnetic interference, temperature-resistant proximity sensors for temperatures of $-60\text{ }^{\circ}\text{C}$ to $250\text{ }^{\circ}\text{C}$, sensors resistant to changing climates with IP 69K degree of protection, proximity sensors resistant to rolling oil, all stainless steel sensors and sensors for dust and gas explosive environments.

The EGE capacitive proximity sensors are also designed for the rough industrial routine.

Infrared sensors

EGE has been developing and producing infrared sensors for the steel industry and metalworking for 35 years. We use robust materials, such as stainless steel and special glass. The infrared detectors measure and detect objects up to $2000\text{ }^{\circ}\text{C}$. The optic attachments can be used at ambient temperatures of $350\text{ }^{\circ}\text{C}$ with IP 69K degree of protection.

Temperature sensors

EGE temperature sensors provide measurements from $-20\text{ }^{\circ}\text{C}$ to $120\text{ }^{\circ}\text{C}$. They feature a display to read the values as well as analog and switching outputs.

The devices offer you additional programmable functions, such as different switching points, hysteresis, min./max. and temperature windows.

Pressure sensors

EGE offers pressure sensors as compact devices. They have a display to read the values locally as well as analog and switching outputs. Limit value, hysteresis, NC/NO contacts, attenuation can be programmed. This is an easy-to-install and quickly deployable device.

Ultrasonic sensors

EGE provides analog and switching ultrasonic sensors with an operating range from 0...600 cm. This also includes compact designs and directional ultrasonic barriers.

Metal detectors

EGE metal detectors protect machines and plant against destruction from metallic objects in material to be conveyed. Reliable switching and the prevention of false positive switching characterise the detectors for medium to large metal objects. They are of robust design and can also be used outdoors in portable machinery.



Wide range of flow sensors



For extreme environments:
Inductive sensors



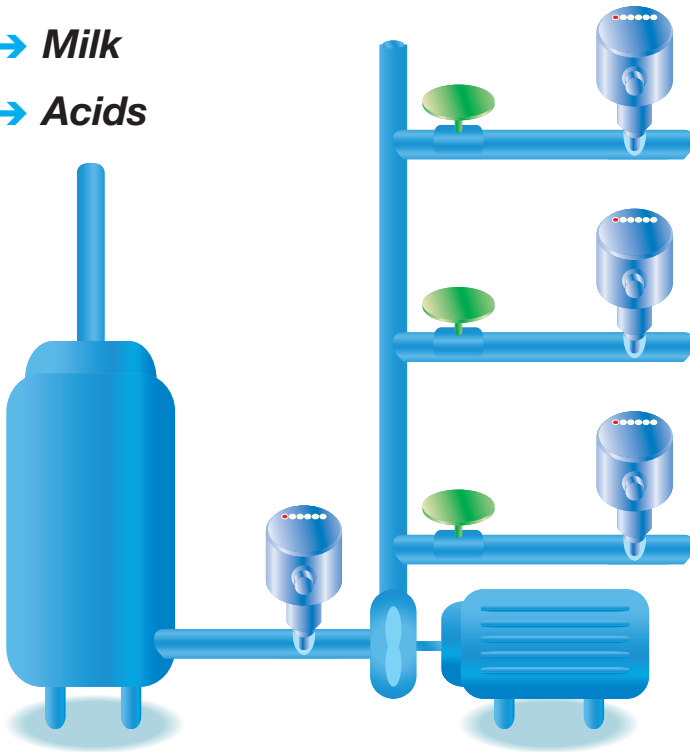
Level sensors for
extreme conditions



Detects metal parts in transported
material: Metal detectors of EGE

Monitor electronically

- Water
- Oil
- Fuel / Gasoline
- Milk
- Acids



Monitoring of

- Cooling-water circuits
- Ventilating plants
- Washing machines and purification plants
- Dry-running protection for pumps

Flow measurement

- Magnetic flowmeter
- Vortex flowmeter
- Measurement error < 2%
- Programmable: Analog and PNP output



Compact model



Analog 4...20 mA



Flow sensor



Flow measurement
Magnetic flowmeter – Vortex
Measurement error < 2%

Monitor electronically

- Flow
- Dosage
- Lubrication
- Working range from 0.001 l/min up to 100 l/min
- Reaction time 0.5 s
- No parts in flow path
- With additional temperature measurement

- Ex -Zones for gas and dust
- Special purpose alloys
- Hastelloy – Tantalum – Titanium
- ATEX for Gas Zone 0 and dust Zone 20
- Airflow-compact model – Dust- Ex Zone 22

- Monitoring of air and gas
- Ventilating plants
- Air conditioning equipment
- Exhaust installations for sawdust
- Detection range 0.5...30 m/s

- Monitoring of air flow
- Filter checking
- Switch cabinet cooling
- Detection range 0.5...15 m/s



Inline-compact



Ex - Sensor



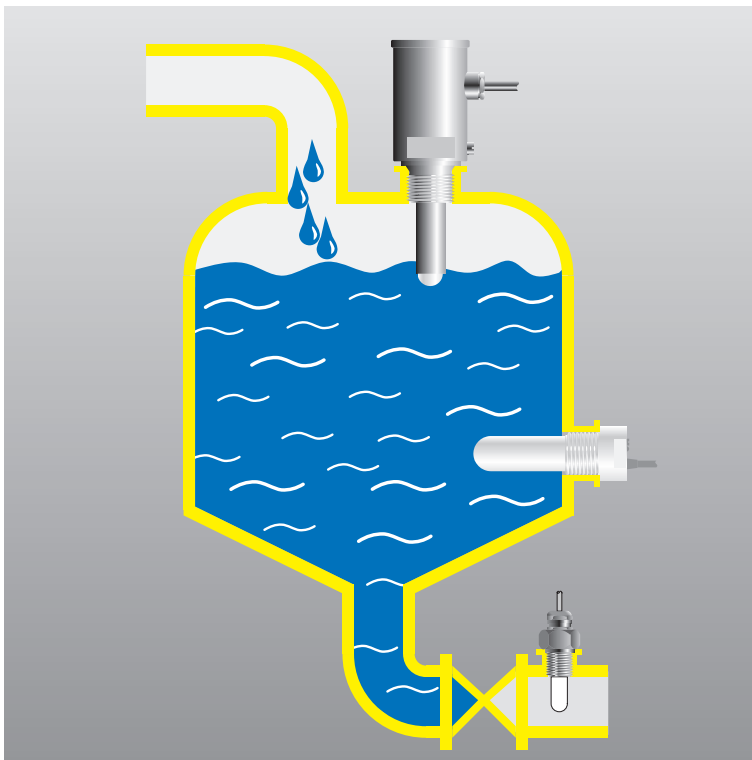
Airflow-compact model – Dust- Ex



M18-Compact model

Monitor electronically

- Fluids
- Granules
- Powder
- +230 °C
- -230 °C



- For aggressive media
- Overfill detection
- Starting and stopping of pumps
- Leak detection
- For hot glue +230 °C
- For liquid nitrogen and cooled granules -230 °C
- Steam proof: 30 bar at 140 °C
15 bar at 200 °C



Compact switch
24 V DC-PNP



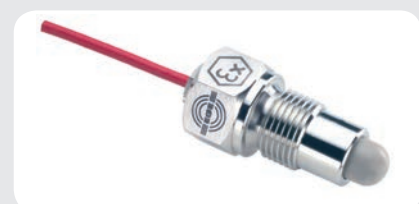
High temperature
+230 °C



Low temperature
-230 °C



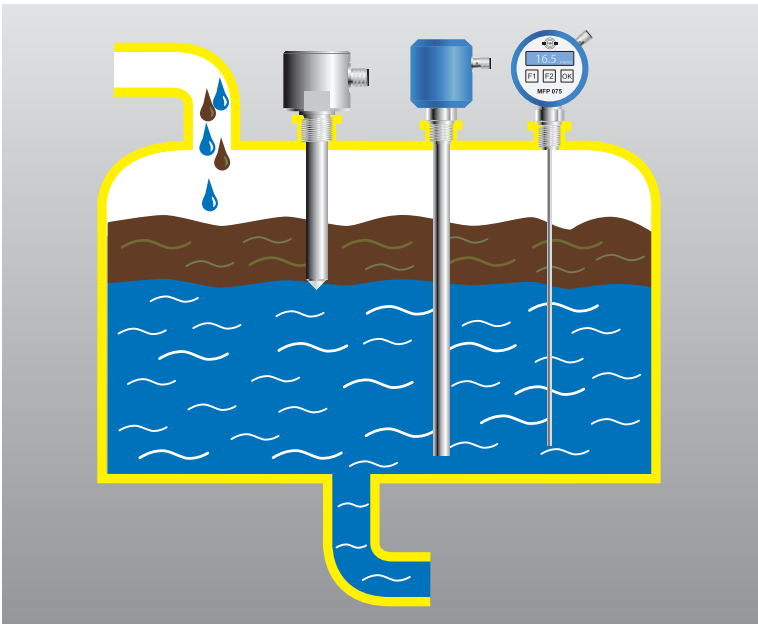
Rod sensor



Ex-Sensor

Microwave

- Suitable for all liquids
- As well suitable for powder and granules
- Distinguishes different liquids
- Sensor lengths 120...1000 mm



Microwave-compact



Microwave-compact



Microwave meter
High precision



Ultrasonic

Level measurement microwave

- Guided microwave
- Precise level detection
- Works with various liquids such as water or oil, powder, granules
- High precision ± 3 mm

Ultrasonic

- Monitoring of all material
- Level control
- Switching distance up to 5000 mm
- Waterproofed housing – IP 67
- Teach-in functions

For extreme environments

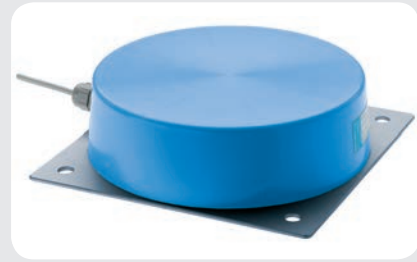
- Positioning control
- Monitoring of rotation
- Measurement of length
- Application in paper-mills
 - in cooling plants
 - in rolling mills
 - in wind-power plants

Special properties

- Resistance against water vapour
- Protection IP 68 + IP 69K
- Resistance against cooling fluids
- Shock resistance up to 300 g
- Factor 1 Aluminium - Steel - Copper
- Ambient temperature $-60...+250\text{ °C}$
- Increased EMC tolerance:
 - Power supply pulses up to 4 KV
 - Frequency converter spectra
 - High frequency radiation up to 100 V/m

Metal face sensors Industrial switch

- One piece stainless steel housing
- Impact and shock-resistant
- For extreme mechanical and corrosive conditions
- High electro-magnetic tolerance
- Unsusceptible to metal chips and abrasive media



Switching distance
up to 200 mm



Temperature
up to $+250\text{ °C}$



PTFE switch
Resistant to acid, $+120\text{ °C}$



Climate-proofed switch
 $+120\text{ °C} / -60\text{ °C}$



Metal face sensors
Industrial switch

Metal face sensors with PTFE coating

- Resistant to welding cinder
- Adhesion-resistant
- Easy to clean – Abrasion-proof



Metal face sensors
with PTFE coating

Metal face sensors for food industry

- For use under hygienic conditions
- Resistant to high pressure cleaning
- Climate-proofed
- -10...+110 °C, IP 68 + IP 69K



Metal face sensors
for food industry

Ex-Zones

- Gas
Zone 0 / 1 / 2
- Dust
Zone 20 / 21 / 22

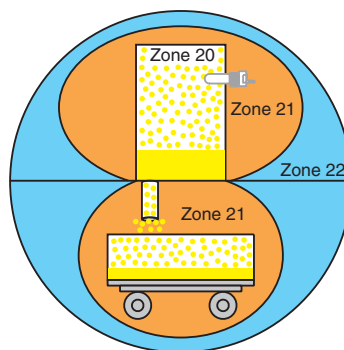


Diagram of a possible
zoning allocation

- Compact models for Zone 20 and 22
- Stainless steel sensors for Zone 22
- Sensors for increased switching distance

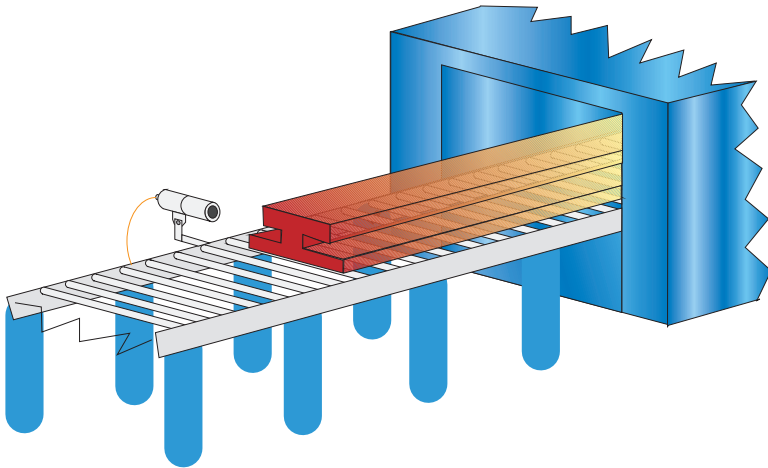


Ex-Sensors stainless steel



Ex-Sensor compact model

Sensing or measuring of warm parts



- **Position control**
- **Speed monitoring**
- **Length measurement**
- **Temperature measurement**

Special properties

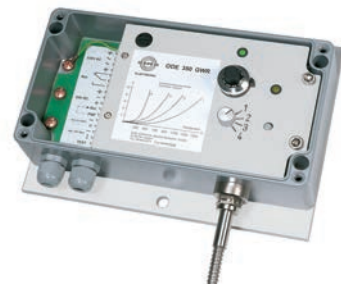
- Measurement up to 2000 °C
- Accuracy ± 10 °C
- Housing material stainless steel
- Protection IP 68
- Fibre-optic is resistant up to +350 °C



Compact switch
300 - 600 - 900 °C



With fibre-optic



Amplifier
300...2000 °C



Compact model
50...300 °C

- Monitoring of all materials
- Switching distance up to 5000 mm
- Level control
- Watertight housing – IP 67
- Teach-in functions

- Compact model with digital display
- Monitoring in pipes and containers
- Pressure up to 16 bar
- Level up to 10 m (± 1 cm)
- Programmable

- Compact model with digital display
- Monitoring in pipes and containers
- Temperature $-40 \dots +120$ °C (± 0.3 °C)
- Pressure up to 100 bar
- Multi-use output on/off + analog

- Detection of metal parts
- For harsh environment
- Large sensing range up to 400 mm
- Monitoring of bulk materials
- Machine protection



Ultrasonic



Pressure



Temperature



Metal detector



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