

Water-Detection-System Oil-TEC

Measure water content in oil

Measurement of absolute water content in user-specific liquids with media temperatures up to 140°C

The installed pump conveys the medium into the cooling system (inlet). Then the heat is extracted and returned to the outlet. The heat that is to be dissipated is released to the ambient air.

The system is based on Peltier elements, which are capable of cooling media with higher inlet temperatures down to approx. 50 °C

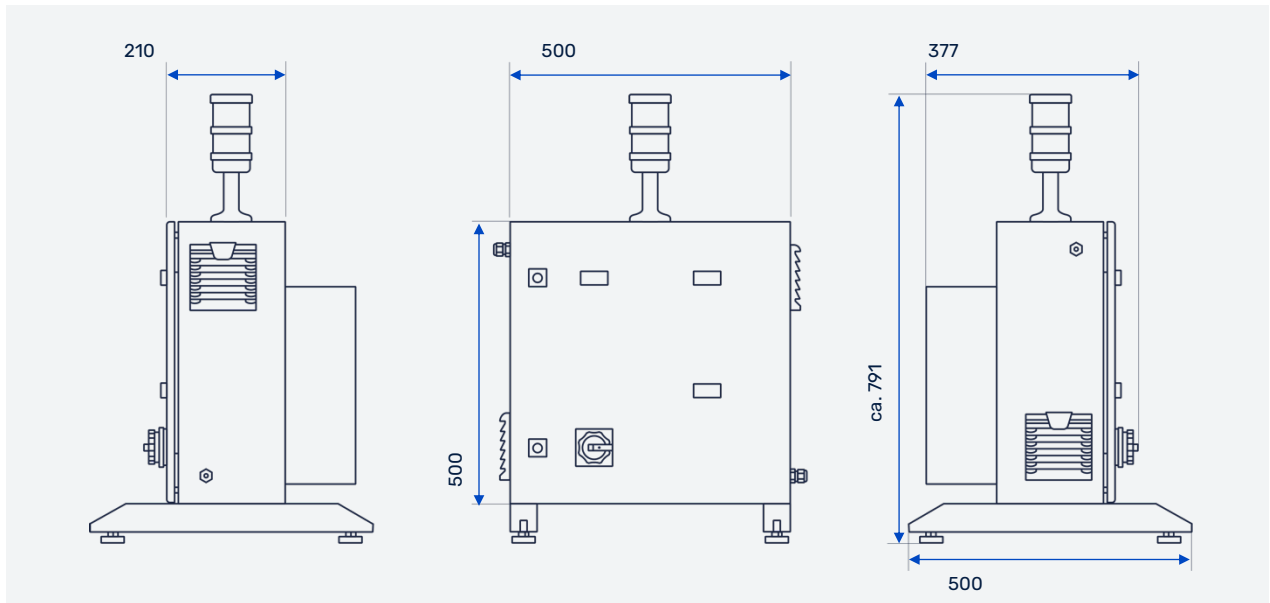
- Designed for inline measurement of absolute water content in ppm [mg/kg].
- Applications: mineral, ester, skydrol, silicone, vegetable, diesel, refrigerating machine, transformer, insulating oils, brake fluids and customized fluids, among others.

Features

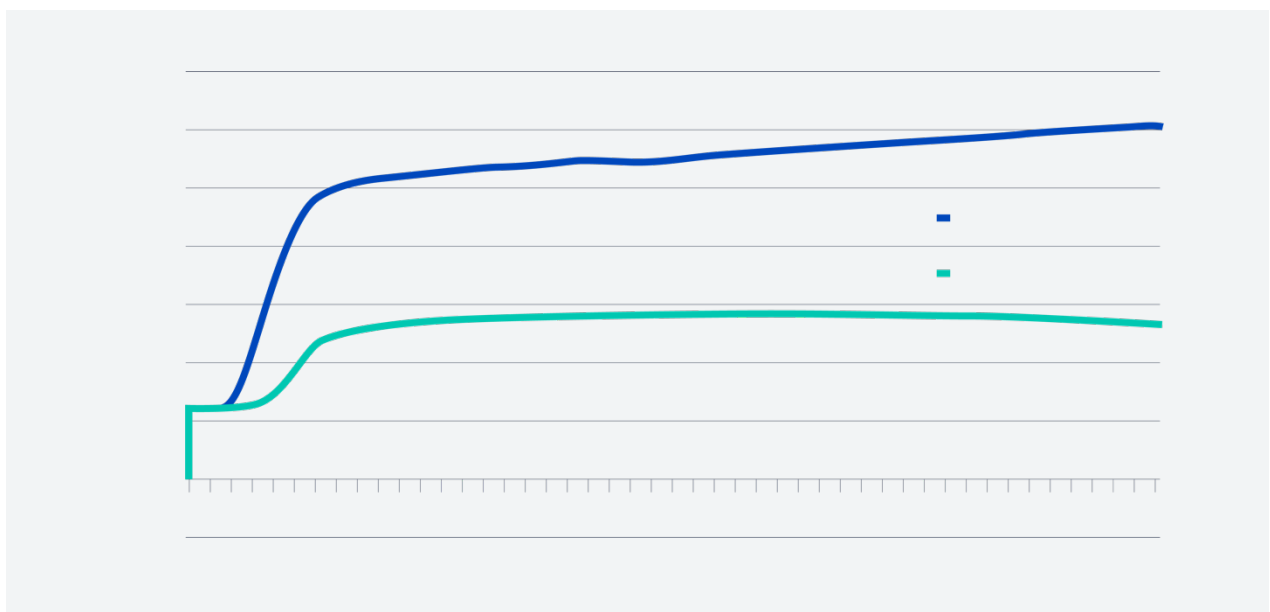
- Cooling based on TEC (thermoelectric cooler)
- Water content measurement at high media temperature
- Quiet (≈40 dB(A))
- Compact design
- Protection class: IP44
- Real-time display for temperatures and oil moisture
- Signal column for current water content
- Dimensions: 500x500x369mm
- Weight: approx. 40Kg

Water-Detection-System Oil-TEC

Dimensions

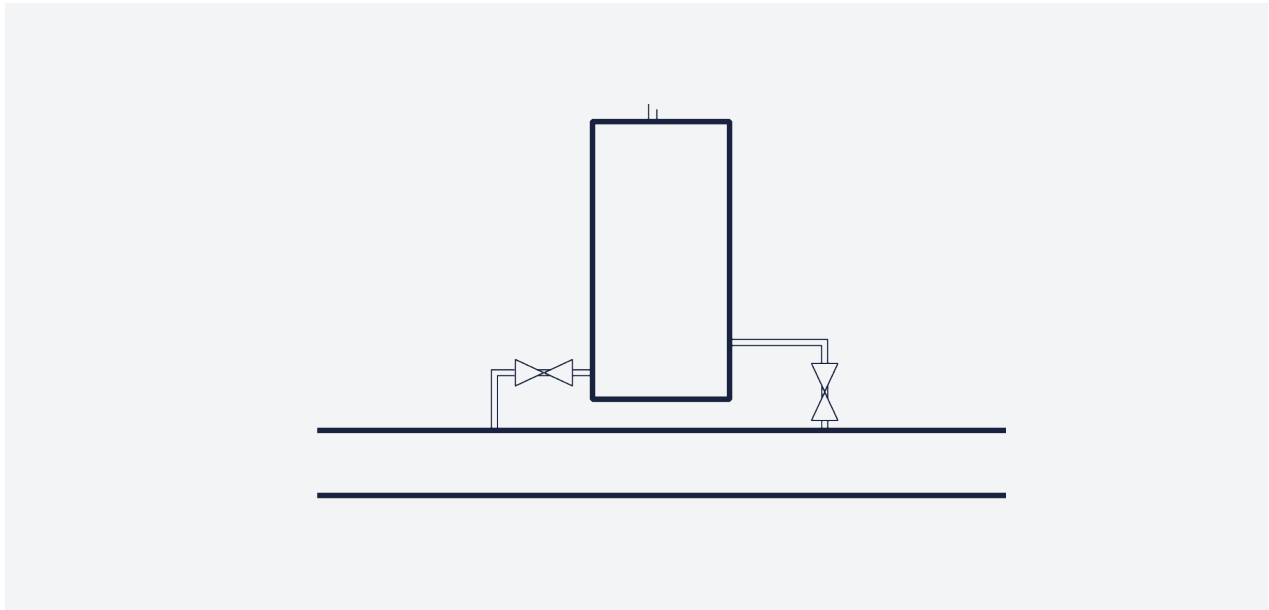


Cooling Power



Water-Detection-System Oil-TEC

Installation



- For optimal function: Installation via bypass

Operating Mode

Media Temperature	Measurement	Pump	Cooling	Water Content Measurement
> 140 °C	No	Off	Off	Off
≥ 40 °C	Yes	On	On	Off
≤ 35 °C	Yes	On	Off	On

50 mm (Media Temperature to Measurement)
 115 mm (Measurement to Pump)
 63 mm (Pump to Cooling)
 5 / 8-18 UNF (Media Temperature to Measurement)
 5 / 8-18 UNF (Water Content Measurement to Pump)

Applications i.e

- Hardening Plants
- Drying and Oil Treatment Plants
- Hydraulic Systems

Interfaces

- Inlet G 1/8 internal thread
- Outlet G 1/8 thread
- 4-20 mA (oil moisture in ppm)

Water-Detection-System Oil-TEC

Three dry contacts (alarm output): Inlet temperature, outlet temperature

Technical Data

- Current Output 4-20mA
- Oil Flow Rate 230ml/min (at 100°C oil temperature (input))
- Typical Measuring Range 10 - 40.000ppm (upper range is limited to saturation of oil)
- Medium Temperature 35°C - 140°C
- Power Supply 300 Watt, 230 V, 50/60 Hz
- Protection Class IP44
- Input Temperature Medium max. 140°C
- Max. Delivery Pressure 1,5 bar