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Reduce your energy costs in utilities stems 1



Heating

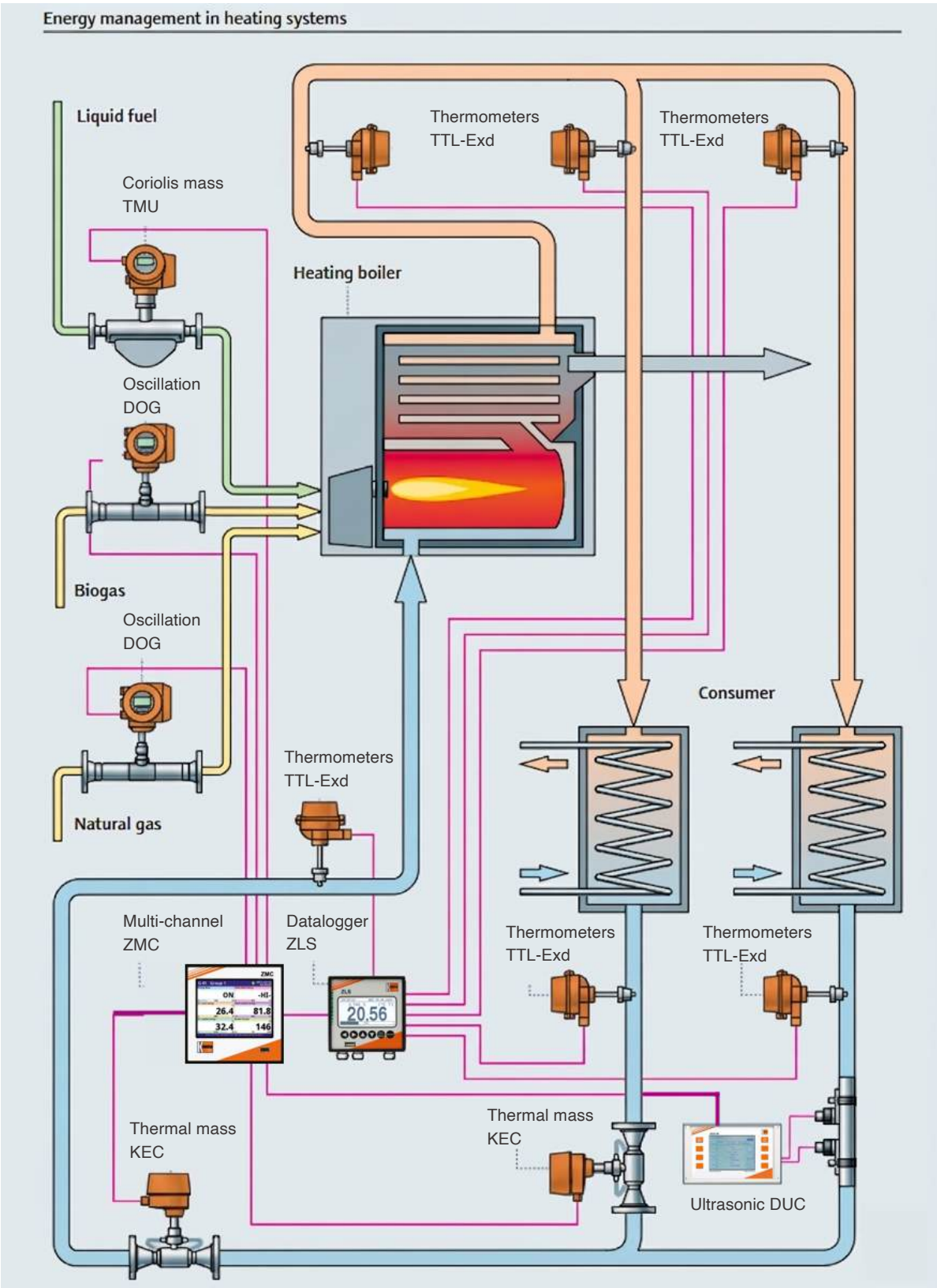


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Reduce your energy costs in utilities stems 2

Energy management in heating systems

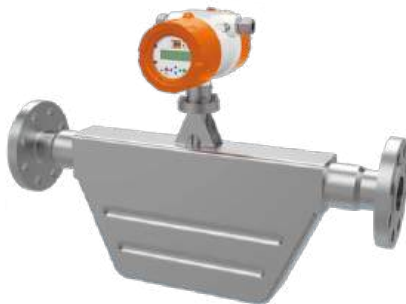


Kobold solution for Cooling systems



Flow measurement for refrigerants Model: Ultrasonic Flow Meter DUC

- Media: ultrasonic conducting liquids
- Temperature measuring range: -40 ... 150 °C
- Accuracy: up to 1%
- Flow velocities: 0 ... ±30 m/s
- Pipe sizes: DN 10 ... DN 6000
- No pressure loss
- Heat quantity measurement



Flow measurement for fuel consumption and natural gas Model: Coriolis mass flow meter TMU

- Direct measurement of mass flow
- Measurement for liquid, gases and density
- Optional sensor heating
- Connection: ANSI ½" ... ANSI 16", DN10...DN400
- Output: 4 - 20 mA, HART®, mass flow, volume flow, density
- No straight inlet run, extreme compact lightweight design



Temperature measurement for feed/ return line Model: Thermometers TTL-Exd

- Energy measurement for feed or return line
- Measuring range max. 180 °C
- Fast response time
- Headtransmitter with HART®-protocol or PROFIBUS®
- Output: sensor type or analogue 4-20 mA
- ATEX approval



Flow measurement for feed/ return line

Model: Oscillation flow meter DOG

- Measurement for dry and wet gases
- p_{\max} : 16 bar; t_{\max} : 120 °C
- Connection: flange DN 25 ... DN 200, ANSI 1" ... 8"
- Material: stainless steel
- Accuracy: ± 1.5 % of reading
- No moving parts



Flow measurement for feed/return line

Model: Thermal mass KEC

- Direct mass flow rate measurement of gases
- Measuring accuracy: ± 1.0 % of reading (on request)
- p_{\max} 100 bar, t_{\max} 180 °C
- Fast response time
- No moving parts
- Analogue output, Modbus RTU and impulse output
- ATEX approval



Data Logger

Model: Multi-Channel ZMC

- Multi-Channel controller
- Communication: RS-485/232, USB Host, Ethernet
- Calculation functions: mass, energy, density....etc
- Protocol: Modbus RTU Master or Slave, Modbus TCP Server
- Display: graphic TFT 3,5" or 5,7", touchscreen
- Data memory: 4 GB



Data Logger

Model: Datalogger ZLS

- Graphic LC-Display, backlight
- Input: mA + V or RTD + thermocouple
- 8 channel input
- 2 switching outputs
- Four presentation modes
- Interface RS 485, Modbus RTU, USB PC
- Free scaling