

# Energy Controller Datasheet Buffer-Temperature-Sensor

Digital 3-way Temperature Sensor for Hot Water Tanks



Highly accurate and easy to install chain of digital sensors for hot water storage in heating technology.

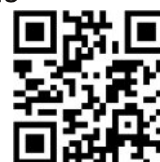
The buffer temperature sensor extends the SCH.E.I.D.L Energy Controller by several measurement points. It is automatically detected and installed by plugging in a single connector. So it allows the precise determination of heat produced or consumed and reservoir loss.

Used as Data-Logger, the SCH.E.I.D.L Energy Controller is a powerful device for monitoring and optimization all types of building services.

The ergonomic user interface is accessible via network on standard PC in normal browsers, or on smartphones and tablets. This makes each kind of facility transparent for analysis and improvement.

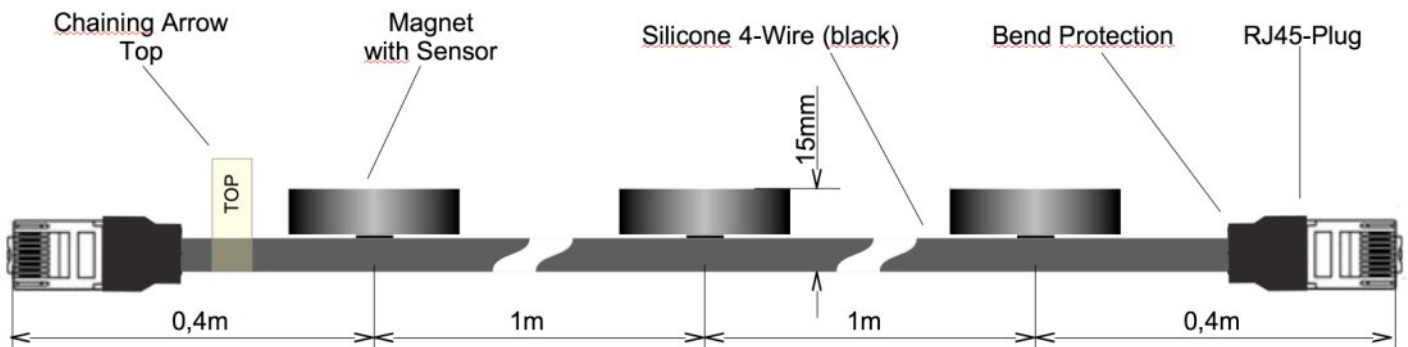
## Operation and Use

- For universal use with any device supporting 1-Wire e.g. DS9490R via RJ45 adapter
  - To expand the SCH.E.I.D.L Energy Controller by all relevant data points of a hot water buffer:
    - temperature top in °C
    - temperature mid in °C
    - Temperature down in °C
    - charging power in kW th.
    - Energy content in kWh th.
  - Scope of supply:
    - High temperature connector cable between 3 sensors with magnets and 2 plugs
    - Y-adapter
  - Heat quantity measurement without pipe section
  - Contact sensor mounted by magnetism, installable without drilling on a filled tank,
- thin enough to fit between insulating material and tank
  - Simple, fast and reliable mountable by plugging, no jamming of single wires, no reverse polarity
  - Other sensors are on the same bus cable consecutively chained by supplied Y-adapter or the second connector
  - Silicone cable of high quality, resistant over the entire measuring range
  - Reinforced protection against electromagnetic disturbance (EMS). CE-approved with surge and burst according standards
  - Part number:  
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## Technical Specification



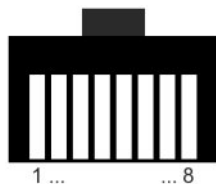
**Measuring Range:**  
-55°C to +125°C

**Resolution:**  
Resolution 0,0625°C  
calibrated to +/-0,5°C

**Digital Sensor:**  
3x Maxim DS18B20+  
for 1-Wire Bus

**Plug:**  
RJ45 plug for digital bus  
Plug up and down allows transfer to  
other sensors, strain relief ensures  
contact, with snap tap and bend  
protection, not suitable for permanent  
mechanical load (moving, tension)  
Pin assignment of the plug front:

- Pin 2: +5V
- Pin 4: 1-Wire
- Pin 5: GND
- Pin 7: +12V



**Power Supply:**  
+3V to +5,5V DC  
max 1,5mA, Standby 0,003mA

**Connecting Cable:**  
Silicone-cable, highly flexible, black and  
round. Heat resistant -55°C to +180°C  
0,4m length towards bus connector

**Magnetic Mounting:**  
Adhesive force: 3,6kg  
Heat resistant -55°C to +180°C  
7mm thickness, 25mm diameter

**Dimensions:**  
2,8m length over all  
thereof 2m max. distance between sensors  
15mm depth

**Protection:** IP30

**Storage Temperature:** -50°C to +125°C

**Declaration of Conformity:** CE Standard for  
Electromagnetic Compatibility EN 55014-1  
and EN 61000  
ElektroG WEEE-Reg.-Nr. DE 31037580  
RoHS and REACH

