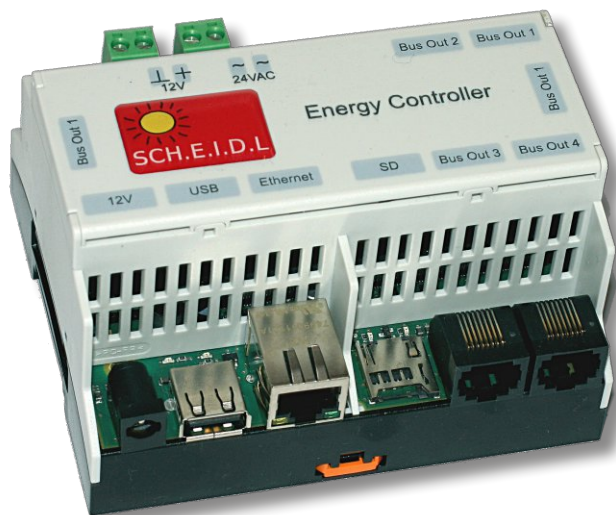


# Energy Controller Datasheet Multi-Datalogger

Web-Monitoring of Environmental, Thermal and Electrical Input



The SCH.E.I.D.L Energy Controller as Multi-Datalogger is a powerful measuring platform to monitor all types of building, storage, garden as well as systems for heating or electrical energy.

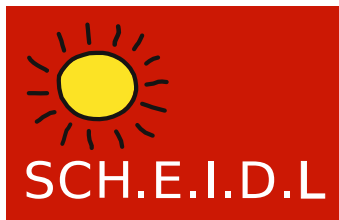
Various types of sensors are available and can be connected wireless or cable connected.

The operation and visualization of the entire system is easily reached from the network and PC in standard browsers, even on tablet or smartphone.

In addition to running as a data-logger there are also steering controllers available for various applications.

## Operation and Use

- To monitor environmental conditions within buildings or outdoor, e.g. museum, classic car or food storage, garden center or IT
- To analyze thermal and electrical systems with several heat generators or consumers, e.g. solar heat, cogeneration, photovoltaics, heat pumps, boilers, or heat distribution
- Visualization of multiple air temperatures, humidity, power meters, trends, conditions and hot water tanks, by a lot of sensors
- Long term recording (monitoring) for several seasons including a data backup
- Web remote access without installing any software, sending alarms in case of any problems via email or SMS
- All Data is stored inside the device, no data is sent to a cloud or portal server
- Security is ensured on military standard by several protected access levels
- Easy extension of new wireless and wired sensors just by hot-plugging
- Support of industry standard, wireless protocol for a mesh-network of sensors. Messages can be forwarded to span several 100m distance
- Support of cable based busses for maintenance free and fast sensors. This reduce cabling costs to a minimum, everything is just plugged
- Installation of Internet access just by plugging into a router - no configuration
- For snapping on DIN rails, housing for flat electrical cabinets
- Version 3.5: support wireless sensors
- Part number: 4 260376 260019



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## Supported Sensors

### **Multisensor** Secure SES303

Wireless Z-Wave Plus  
Air relative humidity 0 to 100%rH with  
+3%rH at 20 to 80%rH  
Air absolute humidity 1 to 41g/m<sup>3</sup>  
Air Temperature 0 to 40°C at +- 0.5°C  
Air Dew-point temperature -20 to +36°C  
Update on change at least every 5 min  
Battery 2x AA min. 2 years lifetime  
Indoor IP30  
Part number: 5 015914 840098

### **Multisensor** Aeon 4-in-1 Gen5 EZW074

Wireless Z-Wave Plus  
Air relative humidity 20 to 90%rH at +-5%rH  
Air absolute humidity 0 to 75g/m<sup>3</sup>  
Air Temperature -20 to +50°C at +- 1°C  
Air Dew-point temperature -37 to +48°C  
Repeater if USB powered  
Update on change at least every 10 min  
Battery 4x AAA or USB power supply  
Outdoor IP43  
Part number: 1 220000 012684

### **Multisensor** Philio 3-in-1 PAT02-A

Wireless Z-Wave Plus  
Air relative humidity 0 to 80%rH at +-10%rH  
Air absolute humidity 0 to 41g/m<sup>3</sup>  
Air Temperature -10 to +40°C at +- 0.4°C  
Air Dew-point temperature -40 to +36°C  
Update on change at least every 30 min  
Battery 1x CR123A min. 7 years lifetime  
Indoor IP30  
Part number: 4 713698 571115

### **Temperature** Secure SES302

Wireless Z-Wave Plus  
Air Temperature 0 to 40°C at +- 0.5°C  
Update on change at least every 5 min  
Battery 2x AA min. 2 years lifetime  
Indoor IP30  
Part number: 5 015914 840081

### **Temperature** SCH.E.I.D.L V2A

Cabled 1-Wire  
Temperature -55 to +125°C at +-0,5°C  
V2A sleeve with silicone cable 0.3m  
Update every 10 seconds  
Outdoor IP65  
Part number: 4 260376 260026

### **Temperature** SCH.E.I.D.L Buffer

Cabled 1-Wire  
3x Temperature -20 to +105°C at +-0,5°C  
Loading th. power W and th. energy kWh  
Update every 1 min  
Magnetic with silicone cable 2.8m  
Indoor IP30  
Part number: 4 260376 260071

### **Meter** Electricity Aeotec HEM

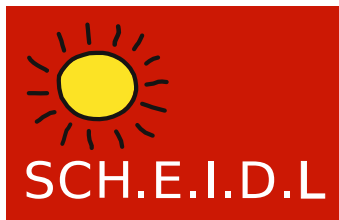
Wireless Z-Wave  
Active el. power 0 to 138kW at +-1%  
Active el. energy 0 to 99999999kWh  
Repeater for other sensors  
Update every 1 min  
With clamps for uninterrupted power  
1 phase 100A: 1 220000 011540  
3 phase 100A: 1 220000 011687  
3 phase 200A: 1 220000 011649

### **Meter** SCH.E.I.D.L S0 Counter Adapter

Cabled 1-Wire  
S0 pulse input DIN 43864  
Weighted pulses for electricity, natural-  
gas, water, heat or other meters  
Update every 1 min  
Indoor IP30  
Part number: 4 260376 260040

### **Repeater** Philio PAN04-1B

Wireless Z-Wave Plus  
Repeater for other sensors  
Powered 230V AC  
Flush mounting  
Part number: 4 713698 571122



# Energy Controller Datasheet Multi-Datalogger

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## Technical Specification

### Meter Inputs: 24 digital

El. power [W] el. energy [kWh]  
wireless with clamps  
cabled S0-pulse  
Configurable weight and unit

### Multisensor Inputs: 12 digital

Humidity rel. [%rH] and abs. [g/m<sup>3</sup>]  
Temperature [°C], Dew-point [°C]

### Temperature-Sensor Inputs: 24 digital

wireless air or cabled sleeve [°C]

### Hot-water-tank Sensor Inputs: 4 digital

cabled 3, 6 or 12 layers [°C]  
Loading / discharge th. power [W]  
Contained th. energy [kWh]

### State Sensor Inputs: 6 digital

cabled on/off

### User Interface:

Browser via network  
Keyboard & mouse via PC, tablet, phone  
Languages: English, German

### Recording time: up to 20 Years

Average 1-day kept 5 years, 6-hours for  
2 years, 1-hour for 1 year, 10-min for 3  
month, 1-min for 2 weeks, 10s for 3 days

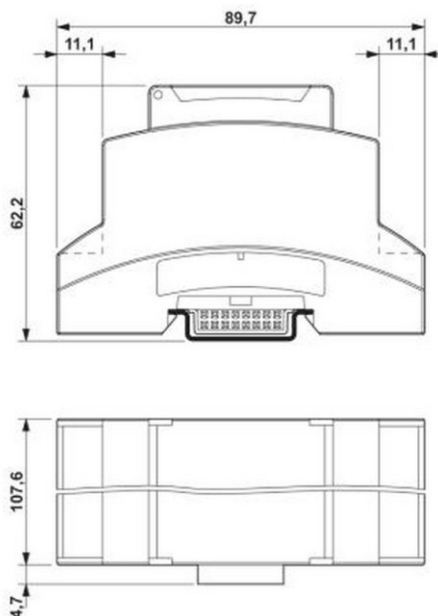
### Wireless Sensor Protocol: Z-Wave Plus

868MHz with +2,5dBm Tx power  
Max 100m distance (outdoor)  
Mesh-net up to 5 distances by repeater

### Cabled Sensor Protocol: 1-Wire

4 independent bus master  
Each max 50m distance  
RJ45 plug according IPS standard  
With +5V 100mA and +12V 200mA

### Network: 10/100Mbps Ethernet plug



### Security:

due to Internet connection  
SSL/TLS Encryption by 2048-Bit certificate  
Web Application Firewall  
backup nightly of all logged data  
security updates nightly  
password quality check, no defaults

### Power Supply: 12V DC max 630mA

Wall power supply  
Standby <2W max 7,5W

### Housing: 107 x 90 x 63mm 6TE Polycarbon.

Up to IP67 depending from cabinet  
Protection class: I  
for DIN-rail 35mm according DIN EN 60715

### Operating Conditions: +10°C to +40°C

20%rH to 80%rH, non-condensing

### Declaration of Conformity: CE standard for

"unabhängiges RS" according EN 60730  
EMV according EN 55014-1 and EN 61000  
ElektroG WEEE-Reg.-Nr. DE 31037580  
RoHS and REACH

