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 maintanance 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

SCH.E.I.D.L GmbH Von-Soden-Str. 46a, 90475 Nürnberg Info@Scheidl.de http://www.scheidl.de Tel.: 0911 / 988 10 32

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/m³
- 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/m³
- 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
- USB power supply or Battery 4x AAA
- 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 Temperature -10 to +40°C at +- 0.4°C
- Air Dew-point temperature -40 to +36°C
- Flood alarm sensor
- 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 60A: 1 220000 014381
- 3 phase 100A: 1 220000 015616
- 3 phase 200A: 1 220000 015531

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

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Technical Specification

Meter Inputs: 24 digital
El. power [W] el. energy [kWh]
wireless with clamps
cableded S0-pulse
Configurable weight and unit

Multisensor Inputs: 12 digital
Humidity rel. [%rH] and abs. [g/m³]
Temperature [°C], Dew-point [°C], Flood Alarm

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

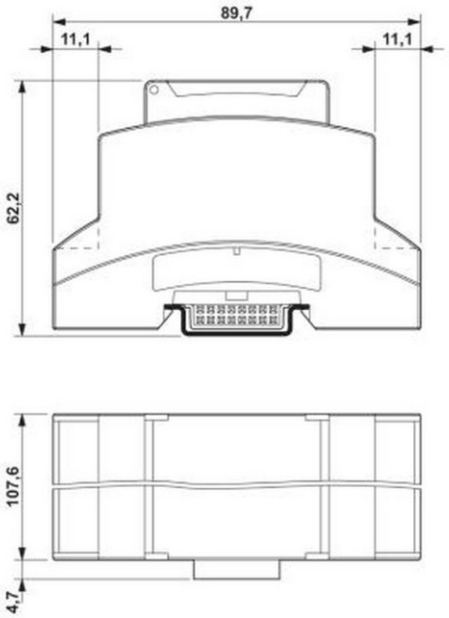
User Interface: Browser via network
Keyboard & mouse via PC, tablet, phone
Languages: English, German

Recording time: up to 20 Years
Average 1-day kept 5 years, 6-hours for 2 years, 1-hour for 1 year, 15-min for 3 month (Meter 1 year), 5-min for 1 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

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