

SCYLAR INT 8

CALCULATOR

HYDROMETER



APPLICATION

Energy calculator for universal use in systems for heating and cooling measuring. Highly accurate recording of all billing data in local and district heating / cooling systems.

FEATURES

- ▶ Can be used for heating, cooling or combined heating / cooling
- ▶ Approved according MID
- ▶ Suitable for 2 and 4 wire temperature sensor connection
- ▶ Power save mode
- ▶ NOWA test capability
- ▶ Programmable history memory (daily, weekly, monthly)
- ▶ IZAR@SET parameterization software on Windows basis guarantees optimum adaption to the user specific needs
- ▶ individual remote reading (AMR) with add on modules Plug & Play
- ▶ Integrated Radio, Real Data or Open Metering Standard (868 or 434 MHz)
- ▶ 2 Communication ports (e. g. M-Bus + Radio)
- ▶ Significantly improved radio performance
- ▶ RS485 Interface
- ▶ 2 passive analogue outputs for 4 ... 20mA

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GENERAL

| SCYLAR INT 8 | |
|------------------------------------|------------------------------------------------------------------------|
| Application | heating - cooling - heating/cooling |
| Approval | MID |
| Protection class | IP 54 |
| Battery supply | 3.6 VDC; A cell; 11 years lifetime; 3.6 VDC; D cell; 20 years lifetime |
| Mains supply | 24 VAC; 230 VAC / 0.15W |
| Volume pulse input frequency | max. 200 Hz; pulse durance > 3ms |
| Pulse value | I/pulse 0.01 ... 10,000 ¹ |
| Temperature sensor type | Pt 100 or Pt 500 with 2- or 4- wire leads; Ø 5.2 / 6mm |
| Cable length of temperature sensor | Pt 100: 2m; Pt 500: 2/5/10m |
| Measuring cycle Volume | s 2 |
| Measuring cycle Flow | s 8 |

¹: depending on size of flow sensor

BASIC FEATURES

| SCYLAR INT 8 | |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Ambient class | class E1 + M1 |
| Ambient temperature | °C 0 ... 55 |
| Ambient storage temperature | °C -25 ... +70 |
| Communication | 2 communication slots (e. g. M-Bus + M-Bus; 2 primary addresses, 1 secondary adress) |
| Integrated Radio | Optional |
| Interfaces standard | Optical ZVEI interface |
| Interfaces optional | 2 slots for modules with M-Bus, L-Bus, RS232, RS485, pulse output, pulse input, combined pulse in-/output or analogue output |

INTEGRATED RADIO

| SCYLAR INT 8 | |
|----------------------------|------------------------------------------------------------------------|
| Frequency band | 868 or 434 MHz |
| Type of radio telegram | Real Data or Open Metering Standard (OMS) |
| Transmission data updating | Online - no time delay between value measurement and data transmission |
| Data transmission | Unidirectional |
| Sending interval | 12 ... 20 s; depending on length of telegram (duty cycle) |

DISPLAY

| SCYLAR INT 8 | |
|--------------------|------------------------------------------------------------|
| Display indication | LCD, 8-digit |
| Units | MWh - kWh - GJ - Gcal - MBtu - gal - GPM - °C - °F - m³ |
| Total values | 99,999,999 - 9,999,999.9 - 999,999.99 - 99,999.999 |
| Values displayed | Energy - Power - Volume - Flow rate - Temperature and more |

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INTERFACES

| SCYLAR INT 8 | |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Optical | ZVEI interface, for communication and testing, M-Bus protocol, 2400 baud |
| M-Bus | Configurable telegram, according to EN1434-3, data reading and parametrization are via two wires with polarity reversal protection, auto baud detect (300 and 2400 baud), 2 M-Bus with 2 primary addresses |
| RS232 | Serial interface for communication with external devices, a special data cable is required, M-Bus protocol, 300 and 2400 baud |
| RS485 | Serial interface for communication with external devices, power supply with 12 V \pm 5 V, M-Bus protocol, 2400 baud |
| Pulse output | Module with 2 Open Collector pulse outputs (potential-free), 4 Hz (pulse width 125 ms), 100 Hz (pulse width \geq 5 ms), ratio: pulse duration / pulse break \sim 1:1, configurable via IZAR@SET software. |
| Pulse input | Module with 2 pulse inputs, max. 20 Hz, configurable via IZAR@SET software, data can be transferred remotely. |
| Combined pulse in-/output | Module with 2 pulse inputs and 1 pulse output, configurable via IZAR@SET software, needed for leak detection. |
| Analogue output | Module for 4 ... 20 mA with 2 programmable passive outputs, programmable value in case of error. |

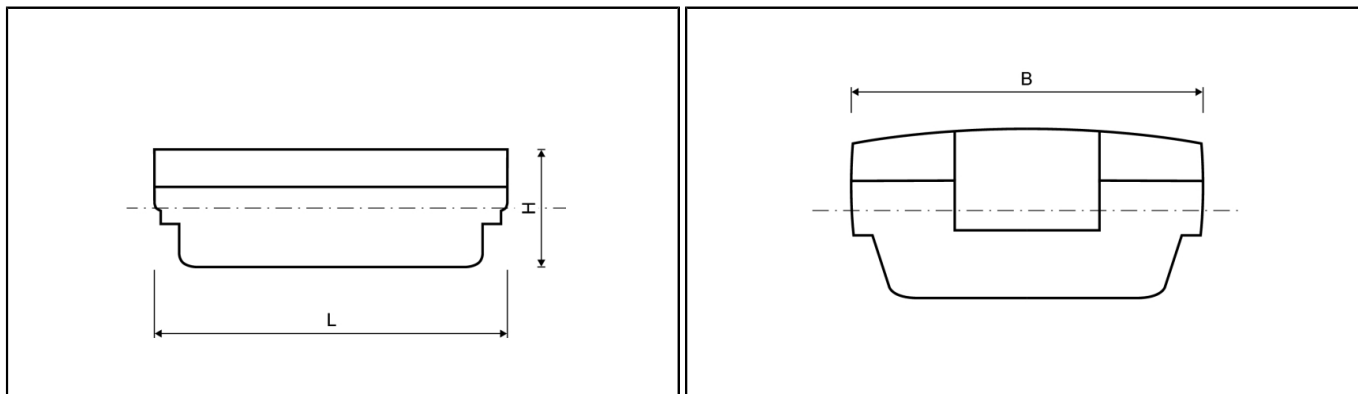
TEMPERATURE INPUT

| SCYLAR INT 8 | | | |
|--------------------------------------|-----------------------|--------------------|---------------------------------------------------------------------------|
| Sensor current | | mA | Pt 100 peak < 8; rms < 0.015, Pt 500 peak < 2; rms < 0.012 |
| Measuring cycle | T | s | with mains unit: 2 s; with A-cell battery: 16 s; with D-cell battery: 4 s |
| Starting temperature difference | $\Delta\Theta$ | K | 0.125 |
| Min. temperature difference | $\Delta\Theta_{\min}$ | K | 3 |
| Max. temperature difference | $\Delta\Theta_{\max}$ | K | 177 |
| Absolute temperature measuring range | Θ | $^{\circ}\text{C}$ | -20 ... 190 |

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DIMENSIONS



SCYLAR INT 8

| | | | |
|---------------------|---|----|-----|
| Overall length | L | mm | 150 |
| Width of calculator | B | mm | 100 |
| Height | H | mm | 54 |

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