

# SCYLAR INT 8

## ENERGY CALCULATOR

**DIEHL**  
Metering



### APPLICATION

SCYLAR INT 8 is a high-precision calculator designed to meet European standards. It measures heating, cooling energy and can be used in combined mode too. SCYLAR INT 8 enables the utility to monitor and optimize its metering remotely; it can be directly connected to a Centralized Technical Management unit, to provide large quantities of instant or saved parameters.

### FEATURES

- ▶ MID approved
- ▶ Heating or bifunctional (heating/cooling) version
- ▶ Heat-transfer fluid: glycol-free water
- ▶ Low power consumption for enhanced battery lifetime (up to 16 years in standard use)
- ▶ Suitable for 2 and 4 wires temperature sensor connection
- ▶ Integrated radio option
- ▶ Modular version, M-Bus, RS232, RS485, Analog outputs 4-20mA, pulse outputs and pulse inputs

# SCYLAR INT 8

## ENERGY CALCULATOR

### GENERAL

SCYLAR INT 8	
Application	Heating or bifunctional (heating/cooling)   Heat-transfer fluid: glycol-free water
Approval	MID (DE-10-MI004-PTB004)
Protection class	IP 54
Battery supply	3.6 VDC D-cell up to 16 years lifetime*
Mains supply	24 VAC; 230 VAC / $\leq 0.15$ W
Volume pulse input frequency	Max. 200 Hz; pulse duration > 3 ms
Pulse value	I/pulse 1, 10, 100 and 1,000 <sup>1</sup>
Temperature sensor type	Pt 500 with 2- or 4- wire leads; $\varnothing$ 5.2mm
Cable length of temperature sensor	Pt 500: 2/5/10m
Calculation cycle	s 2

<sup>1</sup>Depending on size of flow sensor

\*Standard conditions of use and temperature. Theoretical life, with no guarantee.

### REACH

Information pursuant to Article 33 (1) of Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006:

This product series contains components with the following substances in a concentration of more than 0.1% weight by weight (w/w):

- Lead (CAS no.: 7439-92-1)

- 1,2-dimethoxyethane (CAS no.: 110-71-4)

### BASIC FEATURES

SCYLAR INT 8	
Ambient class (MID)	Class E2 + M2
Ambient temperature	°C 0 ... +55
Ambient storage temperature	°C -25 ... +60 (>35 °C max. 4 weeks)
Communication	3 communication interfaces (e. g. M-Bus + M-Bus + Int. Radio; 2 primary addresses, 1 secondary address)
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
Temperatures range	°C 0 ... +180

### INTEGRATED RADIO

SCYLAR INT 8	
Frequency band	868 or 434 MHz
Type of radio telegram	Open Metering Standard (OMS) profile A and B
Transmission data updating	Online - no time delay between value measurement and data transmission
Data transmission	Unidirectional T1 mode
Sending interval	12s (up to 16 years lifetime*) depending on length of telegram (duty cycle)

\*Standard conditions of use and temperature. Theoretical life, with no guarantee.

### DISPLAY

SCYLAR INT 8	
Display indication	LCD, 8-digit
Units	MWh - kWh - GJ - Gcal - MBtu - gal - GPM - °C - °F - m <sup>3</sup> - m <sup>3</sup> /h
Total values	99,999,999 - 9,999,999.9 - 999,999.99 - 99,999.999
Displayed values	Energy - Volume - Flow rate - Power -Temperatures and more

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## ENERGY CALCULATOR

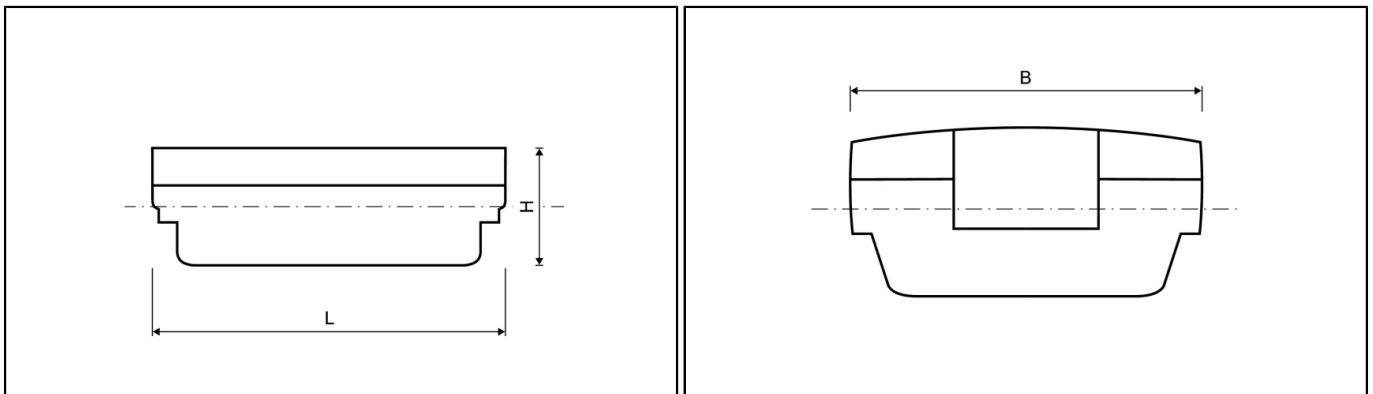
### INTERFACES

SCYLAR INT 8	
Optical	ZVEI interface, for communication and testing, M-Bus protocol, 2,400 bauds
M-Bus	Configurable telegram according to EN13757-3, data reading and parametrization are via 2 wires with polarity reversal protection, auto baud detect (300 and 2,400 bauds), 2 M-Bus with 2 primary addresses
L-Bus	Adapter for external radio module, configurable telegram according to EN13757-3, data reading and parametrization are via 2 wires with polarity reversal protection
RS232	Serial interface for communication with external devices, a special data cable is required, M-Bus protocol, 300 and 2,400 bauds
RS485	Serial interface for communication with external devices, power supply with 12 V ± 5 V, M-Bus protocol, 2,400 bauds
Pulse output	Module with 2 Open Collector pulse outputs (potential-free), output 1: 4 Hz (pulse width 125 ms), pulse or static conditions (e.g. errors), output 2: 200 Hz (pulse width ≥ 5 ms), ratio: pulse duration / pulse break ~ 1:1, configurable via IZAR@MOBILE 2 software
Pulse input	Module with 2 pulse inputs, max. 20 Hz, configurable via IZAR@MOBILE 2 software, data can be transferred remotely
Combined pulse in-/output	Module with 2 pulse inputs and 1 pulse output, configurable via IZAR@MOBILE 2 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			
Measuring cycle	T	s	With mains unit: 2s   with D-cell battery: 4s
Starting temperature difference	$\Delta\Theta$	K	0.125
Min. temperature difference	$\Delta\Theta_{\min}$	K	3
Max. temperature difference	$\Delta\Theta_{\max}$	K	175
Absolute temperature measuring range	$\Theta$	°C	-20 ... +190

### DIMENSIONS



SCYLAR INT 8			
Overall length	L	mm	150
Width of calculator	B	mm	100
Height	H	mm	54