



MINOCAL® COMBI

# Electronic Compact heat meter



*With integrated  
pulse output or bus output*

**Minol**  
*All that counts.*

WATER METER

HEAT METER

SYSTEM BUS

# Minocal® Combi

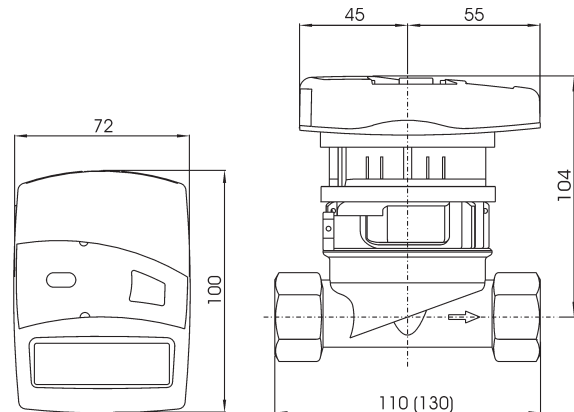
## Compact heat meter in measuring capsule design

### The device

As a further development of the established Minocal® type series the new Minocal® Combi impresses by a very high measuring accuracy within a considerably extended range of performance.



It is tailor-made for the use in housing with its nominal flow rates of  $Q_n$  0.6, 1.5 and 2.5 and a temperature range of 10°C - 90°C. The Minocal® Combi offers the storage of two yearly and 18 monthly key dates.



### Overview of the performance features

- Nominal flow rate  $Q_n$  0.6, 1.5 or 2.5
- Temperature range 10°C - 90°C
- Temperature difference 3K - 100K
- Processing unit is removable from the flow metering unit
- Infrared interface for programming and reading
- Type approval according to metrological class C
- Reversible LCD multi-function display with 3 display levels
- 2 customized yearly key dates and 18 monthly values
- Symmetrical or asymmetrical installation
- Optional M-Bus interface
- Optional contact output for energy and volume or 2 optional contact inputs for the connection of up to 2 devices e.g. water meters
- Also available in 2" type for the replacement of various external heat meter types
- Optional for forward flow installation
- Standard impulse ratio 1 kWh/impuls, others on request
- Software for reading and storage of the consumption data available
- Integrated time indication

### Technical data of the flow metering unit

Nominal flow rate $Q_n$	m <sup>3</sup> /h	0.6	1.5	2.5
Temperature range	°C	10°C - 90°C		
Metrological class according type approval				
- horizontal installation		A - C	A - C	A - C
- vertical installation		A - B	A - C	A - C
Reaction times				
- horizontal installation	l/h	3	5	7
- vertical installation	l/h	4	7	10
Flow rate at 0,1 bar pressure loss	m <sup>3</sup> /h	0.8	1.1	1.2
Pressure stage	bar	16	16	16

### Technical data of the processing unit with temperature sensors

Temperature range	1°C - 130°C
Temperature difference	3K - 100K
Display	LCD-multifunction display
Display units	kWh
Sensor type	PT500 (firmly fixed) cable length 1,5 m, optional 3 m
Interfaces	Infrared M-Bus [optional] Contact output [optional]
Key dates	Last two year's values and 18 monthly values
Protection class	IP54