

# CF 55

## Heat and cooling Meter Calculator



The CF 55 is the most advanced calculator issued from Itron's CF Heat Meter Family. It is designed for use by Heat/Cooling Utilities which face today's complex networks management. High performance tools help the management of contracts with end clients, other tools gather all data necessary to analyse network performance. All different data is available directly or through the wide communication choices.

### FEATURES AND BENEFITS

- » Complex Tariff Manager
- » Powerful Datalogger
- » Plug and Play Communication Boards
- » 2 or 4 wires temperature sensors

CE type approval certificate:  
DE-06-MI004-PTB006

### Applications

Heating, Cooling and combined applications.

### Standards Compliance

- » MID 2004/22/EC Module B+D
- » Env. Class C acc. EN 1434
- » PTB approved

### Benefits

- » Easy to use
- » Works with any flow meter with a pulse output
- » High value added functions
- » Clear informations
- » Powerful capacities

### Multifunctional Display

The multifunctional display facilitates easy reading, providing fast and clear access to the most important billing data. The display enables the diagnosis of failures alarms from a single glance.

The LCD has a long life time and through a push button you get easily access to each level of data.

### Loop 1

#### Billing Data

- Energy
- Cooling energy\*
- Volume
- LCD test
- External water meter 1 + 2\*
- Tariff indexes\*

\*optional

### Loop 2

#### Additional Information

- Flow rate
- Power
- Supply temperature
- Return temperature
- Temperature difference
- Operating time
- Power peak date + time\*
- Flow peak date + time\*
- Temperature peak date + time\*
- Time in alarm
- Temperature alarm
- Flow alarm
- Overflow alarm
- Power supply alarm
- Current time + date\*
- M-Bus primary address
- M-Bus secondary address
- M-Bus baud rate
- Pulse value water meter 1 + 2\*

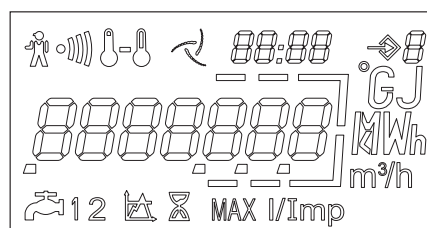
\*optional

### Loop 3

#### Fixed Date Reading

- Fixed date energy 1...24
- Fixed date cooling energy 1...24\*
- Fixed date volume 1...24
- Fixed date water meter 1 + 2 1...24\*
- Software version

\*optional



### PEAK

Three different base units are traced for its peak values in this tool. The integration time is adaptable to the different needs going from 1 minute to 24 hours for fixed window time sets. All values are time stamped for further comprehension and analysis and stored throughout the 24 fixed date reading months for permanent follow up.

Power (W)

Flow (m<sup>3</sup>/h)

Supply Temperature (°C)

### TARIFFICATION

The double tariffication is an advanced tool giving the possibility to utilities and clients set high performance network management indicators. It traces both the quality of supply as well the quality of consumption giving both parties a major advantage in the cost effective heat usage.

Power (W)

Flow (m<sup>3</sup>/h)

Supply Temperature (°C)

Return Temperature (°C)

### DATA LOGGING

This is the exploitations tool by excellence. Studies of the network performance, analysis of determined consumptions or simply the trace of a seasons pattern are possible with this powerful tool. Select up to 6 registers from a list containing above 20 available and log them through 1008 steps programmable from a minute by minute up to daily or weekly registration.

### CF 55 Energy Calculator

|                         |   |
|-------------------------|---|
| Metrolgy exceeds        | PTB, DRIRE, OIML, EN 1434   |
| Temperature range       | 0 ... 180 °C  |
| Temperature difference  | 3 ... 160 K   |
| Temperature sensors     | Pt100 or Pt500, 2 or 4 wires connection   |
| Display                 | LCD - 7 digits  |
| Back-up memory          | EEPROM  |
| Power supply (optional) | 6 or 12 year Lithium battery - 230 V main power supply or power supply by M-Bus |
| Protection class        | IP64  |
| Environmental class     | Class C acc. EN 1434  |
| Ambient temperature     | 5 ... 55 °C   |
| Optical interface       | EN 60870-5 / M-Bus protocol   |

### Option Boards Characteristics

#### M-Bus

|                       |   |
|-----------------------|---|
| Standard reference    | EN 1434-3   |
| Baud rate             | 300 to 2400 baud  |
| Data in standard mode | Energy, Volume, Flow, Temperatures (supply, return, difference), Time in error, Operation time, Date and time, Volume of water meters 1&2, Firmware version |

#### CF 55 Pulse Value

|                 |  |
|-----------------|--|
| L/imp or imp/L  | 1 / 2.5 / 10 / 25 / 100 / 250 / 1000L/imp or<br>2.5 / 4.5 / 7.5 / 10 / 25 imp/L                      |
| Pulse detection | Contact closed $R \leq 500 \Omega$<br>Contact opened $R \geq 100 k\Omega$<br>Maximum frequency: 10Hz |

#### Energy and Volume Pulse output

|             |   |
|-------------|---|
| Pulse value | Repetition of display<br>Energy from 1KWh to 1MWh<br>Volume from 10 L to 1 m <sup>3</sup> |
|-------------|---|

#### LON application

|                    |          |
|--------------------|----------|
| Transceiver        | TP/FT-10 |
| Transmission speed | 78 Kb/s  |

#### Radio Applications

|               |   |
|---------------|---|
| Compatibility | AnyQuest radio walk-by system<br>EverBlu radio fixed network system |
| Frequency     | 433 MHz   |
| Protocol      | Radian open protocol  |

#### GPRS Modem with integrated M-Bus-Master (option)

|                       |  |
|-----------------------|--|
| GPRS specifications   | Quad Band GSM 850/900/1800/1900MHz         |
| GPRS datatransfer via | SMS, E-Mail, FTP client, http client       |
| M-Bus Master (option) | EN 13757-2/-3, 300/2400 Baud, 8 unit loads |

#### RS232

|                    |  |
|--------------------|--|
| Standard Reference | M-Bus protocol EN1434-3                      |
| Baudrate / Data    | See M-Bus specifications                     |
| Power supply       | 4V-12V DC (DTR signal or external DC supply) |

#### Power supply by M-Bus (Board 6)

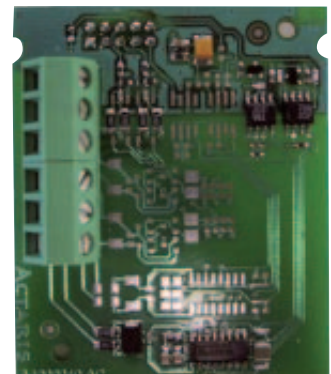
|                     |  |
|---------------------|--|
| Current consumption | 2 unit loads = 3mA (M-Bus master / permanent load) |
|---------------------|--|

### OPTION BOARDS

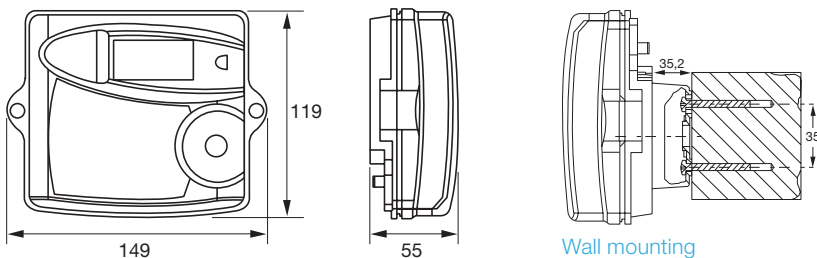
The CF 55 is pre-equipped for communication. Different option boards can be plugged simply to the meter and start working automatically.

The following option boards are available:

- » Board 1: **M-Bus + E/V Repetition**
- » Board 2: **M-Bus + 2 Water Meters pulse input**
- » Board 3: **GPRS Modem + E/V Repetition + M-Bus Master**
- » Board 4: **LON + 2 Water Meters pulse input**
- » Board 5: **Radio + 2 Water Meters pulse input**
- » Board 6: **M-Bus + 2 Water Meters pulse input + power supply by MBus**
- » Board 7: **Double M-Bus output**
- » Board 8: **RS232 + 2 Water Meters pulse input**



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