

CF 51

Heat and cooling Meter Calculator



The CF 51 is a stand-alone calculator issued from the Itron CF Heat Meter Family and represents a technology step forward in the metering of thermal energy. Easy to handle, this calculator will turn your investment into benefits.

FEATURES AND BENEFITS

- » Modular Design
- » Plug and Play Communication options boards
- » Bonus calculator
- » Max. demand manager
- » 2 wires

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

Loop 1

Billing Data

- Energy
- Cooling energy*
- Volume
- LCD test
- External water meter 1/2*

*optional

Applications

Heating, Cooling and Combined, return and supply positioning.

Standards Compliance

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

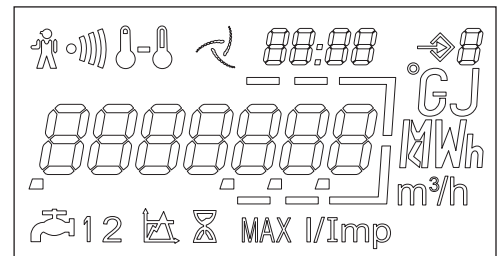
Benefits

- » Simple to use
- » Easy reading
- » Upgrade with option boards

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 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

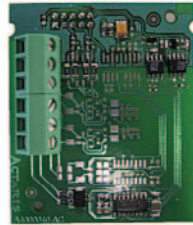
CF 51 Energy Calculator

| | |
|----------------------------|---|
| Metrology exceeds | PTB, DRIRE, OIML, EN 1434 |
| Temperature range | 0 ... 180 °C |
| Temperature difference | 3 ... 160 K |
| Temperature sensors | Pt100 or Pt500, 2 wires |
| 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 |
| Pulse value (programmable) | 1 / 2.5 / 10 / 25 / 100 / 250 / 1000 L |
| 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 |



Pulse Inputs for 2 water meters

| | |
|-------------------------------------|--|
| Pulse value (independent per input) | 1 / 2.5 / 10 / 25 / 100 / 250 / 1000L/imp |
| Pulse detection | Contact closed $R \leq 500 \Omega$ Contact opened $R \geq 100 k\Omega$ Maximum frequency: 10Hz |

Energy and Volume Pulse output

| | |
|-------------|---|
| Pulse value | Repetition of display Energy from 1KWh to 1MWh Volume from 10 L to 1 m ³ |
|-------------|---|

LON application

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

Radio Applications

| | |
|---------------|---|
| Compatibility | AnyQuest radio walk-by system 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 |

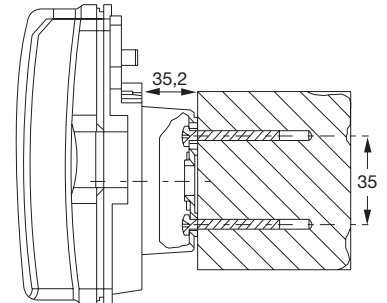
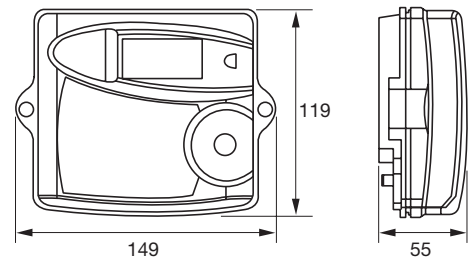
RS232

| | |
|--------------------|--|
| 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) |
|---------------------|--|

DIMENSIONS



Wall mounting

OPTION BOARDS

The CF 51 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 M-Bus**
- » Board 7: **RS232 + 2 Water Meter pulse input**



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