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 2014/32/EU Module B+D
- Env. Class E1, M1 acc. 2014/32/EU
- OIML R75

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

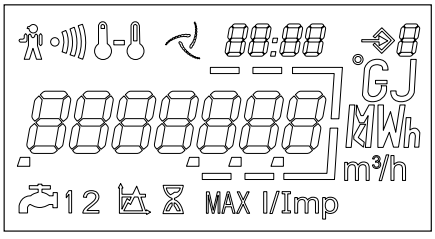
Additional Information
Flow rate
Power
Supply temperature
Return temperature
Temperature difference
Operating time
Power peak date + time*
Flow peak date + time*
Temperature peak date + time*
Time in alarm
Temperature alarm
Flow alarm
Overflow alarm
Power supply alarm
Current time + date*
M-Bus primary 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^3/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^3/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	
Metrology exceeds	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	Env. Class E1, M1 acc. 2014/32/EU
Ambient temperature	5 … 55 °C
Optical interface	EN 13757 / M-Bus protocol

Option Boards Characteristics

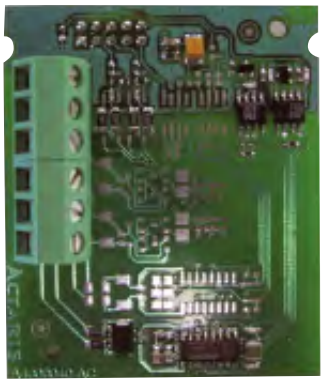
M-Bus	
Standard reference	EN 1434-3
Baud rate	300 to 2400 baud
Data in standard mode	Energy, Volume, Flow, Temperatures (supply, return, difference), Time in error, Operation time, Date and time, Volume of water meters 1&2, Firmware version
CF 55 Pulse Value	
L/imp or imp/L	1 / 2.5 / 10 / 25 / 100 / 250 / 1000L/imp or 2.5 / 4.5 / 7.5 / 10 / 25 imp/L
Pulse detection	Contact closed R ≤ 500 Ω Contact opened R ≥ 100 kΩ 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
LoRaWAN characteristics	
Device class	Class A, bi-directional
LoRa version	1.0.2
Activation	OTAA or ABP
Data rate	DR0-DR5 (250 bit/s - 5470 bit/s)
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
Modbus	
Mode	2 wires, Differential Half-Duplex
Baudrate / Data	2400, 4800, 9600, 19200 bits/s
Format	8 data bit 1 stop bit no parity
Power supply	3,6 V-12V DC from CF heat meter
Power supply by M-Bus (Board 6)	
Current consumption	2 unit loads = 3mA (M-Bus master / pemanent load)

OPTION BOARDS

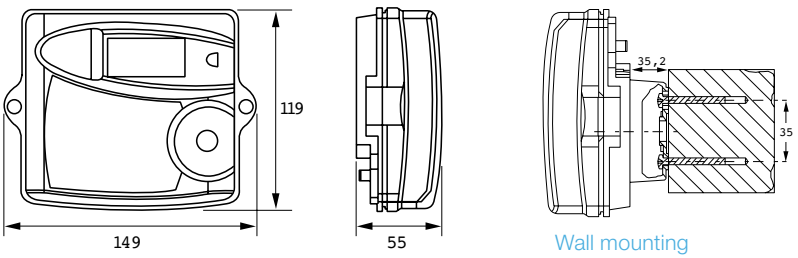
The CF 55 is pre-equipped for communication. Different option boards can be plugged simply to the meter and start working automatically.

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: **LoRa CMi4130**
- Board 6: **M-Bus + 2 Water Meters pulse input + power supply by MBus**
- Board 7: **Double M-Bus output**
- Board 8: **Modbus**



DIMENSIONS



Wall mounting

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ITRON METERING
Allmess GmbH
Am Voßberg 11
23758 Oldenburg i.H.
Germany

Phone: +49 4361 625-0
Fax: +49 4361 625-250