



# CF-51 and CF-55

Combined heat and cooling meter for small  
measuring points  
DN 15 - DN 50

## Your benefits

- Big display:  
Easy to read
- Universal applicable:
  - Wall-mounted model  
(Volume measuring meter UNICO®  
and MTW)
  - Different power supply possibilities
- Option cards for diverse functionalities:
  - Economical basic device
  - Additional functionalities feasible

## Application

- Metering of heat and/or cooling consumption in building management
- Energy measurement for local or remote reading

## Features

- Electronic calculator
- LCD-resolution 7 digits
- Non-volatile memory EEPROM
- Temperature measuring range 0 - 130 °C
- Temperature sensor Pt 100  
CF-51: 2-wires  
CF-55: 2- or 4-wires
- Standard EN 1434
- 24 month register
- Supply via 12-year battery, mains or M-Bus  
(pay attention to versions)
- Maximum values with time stamp
- Combinable with mechanical impeller meters with Reed-pulser
- **CE** Conformity according European Measuring Instruments Directive (MID)

## Options

- Option cards for:
  - M-Bus / water meter inputs
  - M-Bus / 2 pulse outputs
    - Heat energy: Output Heat energy + volume
    - Heat and cooling energy: Output Heat and cooling energy
  - M-Bus Power / 2 water meter inputs
  - Double M-Bus (only CF-55)
  - LonWorks, FTT-10A / 2 water meter inputs  
(separate supply 24 V AC/DC necessary)
  - Modbus RTU (RS485) / 2 water meters inputs  
(Power supply module 230 V AC necessary)
- ☐ Documentation: CF-51 Calculator - EPe20526  
Documentation: CF-55 Calculator - EPe20527

## Calculator executions

### Wall-mounted model (split version)

#### CF-51

- ... WBT Battery (12 years)
- ... WNZ Mains supply (230 VAC)
- ... WFS Supply via M-Bus

#### CF-55

- ... WBT Battery (12 years)
- ... WNZ Mains supply (230 VAC)
- ... WFS Supply via M-Bus

## Technical Data

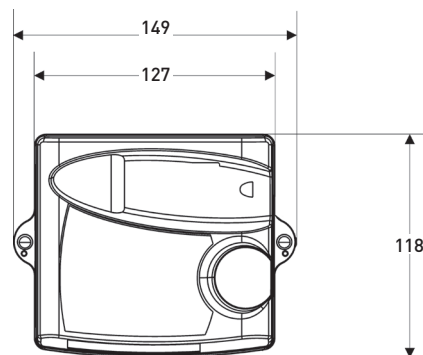
Execution			UNICO®		
Nominal diameter	DN	mm	15	20	20
Operating pressure	PN	bar	16	16	16
Operating pressure (flanged)	PN	bar	–	–	–
Connection thread on meter	G...B	Inch	¾	1 <sup>1)</sup>	1 <sup>1)</sup>
Connection thread on coupling	R...	Inch	½	¾	¾
<b>Nominal flow rate</b>	<b>q<sub>p</sub></b>	<b>m<sup>3</sup>/h</b>	<b>1,5</b>	<b>1,5</b>	<b>2,5</b>
Maximum flow rate	q <sub>s</sub>	m <sup>3</sup> /h	3	3	5
Minimum flow rate horizontal ±5%	q <sub>i</sub>	l/h	30	30	50
Pulse value of volume measuring meter		l/Imp.	2,5	2,5	2,5
Kvs-value		m <sup>3</sup> /h	3	3	5
Temperature		max.C°	90/120	90/120	90/120
Installation position (Flow direction)			← → ↑ ↓	← → ↑ ↓	← → ↑ ↓
Standard measuring range	q <sub>i</sub> /q <sub>p</sub>		1:50	1:50	1:50

<sup>1)</sup> also available with 1" NPSM thread (not in combination with temperature sensor drilling)

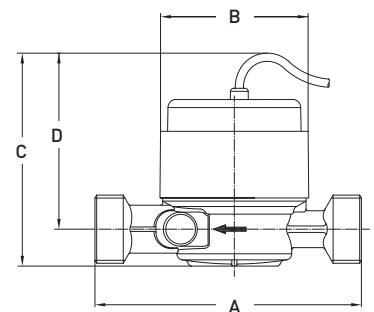
Dimensions			UNICO®		
Length without couplings	A	mm	110	130	130
Length with couplings		mm	184	222	222
Width	B	mm	72	72	72
Height with pulser and magnetic protection cover	C	mm	108	108	108
Height from pipe centre line	D	mm	90	90	90

## Dimension Diagram

Calculator CF-51/CF-55



UNICO®



## Technical Data

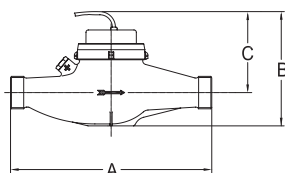
Execution			MTW (horizontal)					MTW-VS or -VF (vertical) <sup>1)</sup>			
Nominal diameter	DN	mm	20	25	32	40	50	20	25	32	40
Operating pressure	PN	bar	16	16	16	16	16	16	16	16	16
Operating pressure (flanged)	PN	bar	-	-	-	-	-	-	-	-	-
Connection thread on meter	G...B	Inch	1	1¼	1½	2	2¾	1	1¼	1½	2
Connection thread on coupling	R...	Inch	¾	1	1¼	1½	2	¾	1	1¼	1½
Nominal flow rate	q <sub>p</sub>	m <sup>3</sup> /h	2,5	3,5	6	10	15	2,5	3,5	6	10
Maximum flow rate	q <sub>s</sub>	m <sup>3</sup> /h	5	7	12	20	30	5	7	12	20
Minimum flow rate ±5%	q <sub>i</sub>	l/h	50	70	120	200	300	50	70	120	200
Pulse value of volume measuring meter		l/Imp.	2,5	2,5	2,5	25	25	2,5	2,5	2,5	25
Kvs-value		m <sup>3</sup> /h	5	10	12	20	30	5	10	12	20
Temperature		max.C°	90	90	90	90	90	90	90	90	90
Installation position			←→	←→	←→	←→	←→	↑↓	↑↓	↑↓	↑↓
Standard measuring range	q <sub>i</sub> /q <sub>p</sub>		1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50

Dimensions			MTW (horizontal)					MTW-VS or -VF (vertical) <sup>1)</sup>			
Length without couplings	A	mm	220 <sup>2)</sup>	260	260	300	300	105	150	150	200
Length with couplings		mm	312	352	372	432	452	197	242	262	332
Total height	B	mm	127	137	137	163	177	-	-	-	-
Meter height from pipe centre line	C	mm	87	94	94	117	120	-	-	-	-
Meter depth	D	mm	-	-	-	-	-	148	169	183	226
Meter depth from pipe centre line	E	mm	-	-	-	-	-	130	143	156	190
Meter width	F	mm	95	100	100	135	151	95	98	101	139

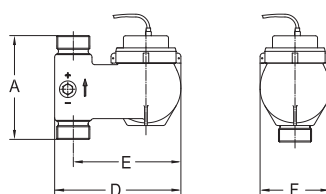
<sup>1)</sup> -VS = Vertical riser / -VF = Vertical down pipe <sup>2)</sup> Also supplied in length 190 mm

## Dimension Diagram

MTW



MTW-V



# Flow measuring ranges

