

CF-51 and CF-55

Combined heat and cooling meter for small measuring points



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**

Applications

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

Properties

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

Options

- Special version for combined heat/cold measurements (special programming)
- Option cards for:
 - M-Bus / water meter inputs
 - M-Bus / 2 pulse outputs energy + volume
 - 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)
- Optional external EquaScan - wireless pulse Module pMIU
 - 📄 [Documentation: CF-51 Calculator - EPe20526](#)
 - 📄 [Documentation: CF-55 Calculator - EPe20527](#)

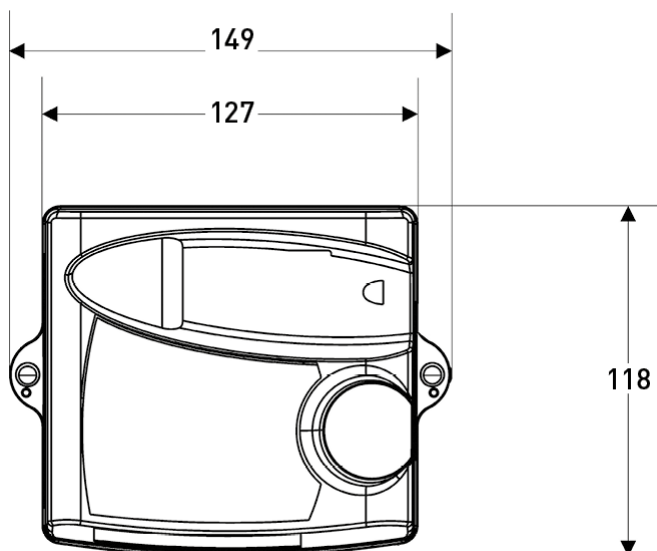
Technical Data UNICO®

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	Zoll	¾	1	1
Connection thread on coupling	R...	Zoll	½	¾	¾
Nominal flow rate	q _p	m ³ /h	1,5	1,5	2,5
Maximum flow rate	q _s	m ³ /h	3	3	5
Minimum flow rate horizontal ±5%	q _i	l/h	30	30	50
Pulse value of volume measuring meter		l/Imp.	2,5	2,5	2,5
Kvs-value		m ³ /h	3	3	5
Temperature		°C	2... 90/120	2... 90/120	2... 90/120
Installation position (Flow direction)			←→↑↓	←→↑↓	←→↑↓
Standard measuring range	q _i /q _p		1:50	1:50	1:50

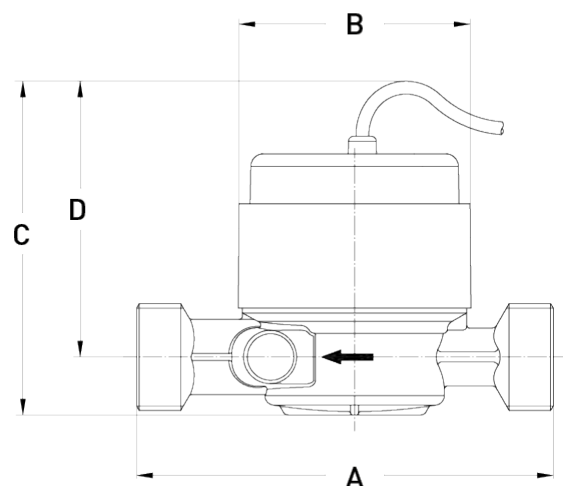
Dimensions			UNICO®		
Length without couplings	A	mm	110	130	130
Length with couplings		mm	184	222	222
Width	B	mm	72	72	72
Height with pulser and magnetic protection cover	C	mm	108	108	108
Height from pipe centre line	D	mm	90	90	90

Dimension Diagram CF-51 / CF-55/ UNICO®

Calculator CF-51/CF-55



UNICO®



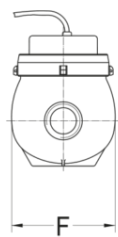
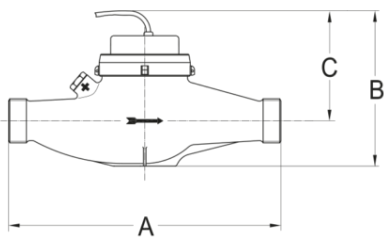
Technical Data MTW / MTW-VS / MTW-VF

Execution			MTW (horizontal)					MTW-VS oder -VF (vertical) ¹⁾			
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	Zoll	1	1¼	1½	2	2¾	1	1¼	1½	2
Connection thread on coupling	R...	Zoll	¾	1	1¼	1½	2	¾	1	1¼	1½
Nominal flow rate	q _p	m ³ /h	2,5	3,5	6	10	15	2,5	3,5	6	10
Maximum flow rate	q _s	m ³ /h	5	7	12	20	30	5	7	12	20
Minimum flow rate ±5%	q _i	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 ³ /h	5	10	12	20	30	5	10	12	20
Temperature		°C	2... 90/120	2... 90/120	2... 90/120	2... 90/120	2... 90/120	2... 90/120	2... 90/120	2... 90/120	2... 90/120
Installation position			□	□	□	□	□	□	□	□	□
Standard measuring range	q _i /q _p	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50

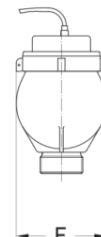
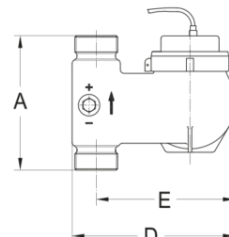
Dimensions			MTW (horizontal)					MTW-VS oder -VF (vertical) ¹⁾			
Length without couplings	A	mm	220 ²⁾	260	260	300	300	105	150	150	200
Length with couplings		mm	312	352	372	432	452	197	242	262	332
Total height	B	mm	127	137	137	163	177	-	-	-	-
Meter height from pipe centre line	C	mm	87	94	94	117	120	-	-	-	-
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

Dimension Diagram MTW / MTW-V

MTW



MTW-V

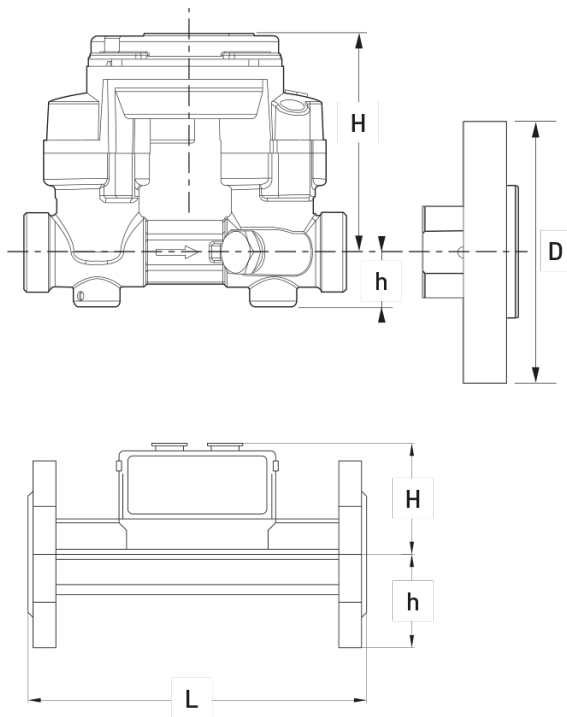


Technical Data US Echo II

Execution			US ECHO II																					
Nominal diameter	DN	mm	15	15	20	20	20	20	20	20	20	20	25	25	25	25	25	25	32	40	40	40	50	
Operating pressure	PN	bar	16	16	16	16	-	16	16	-	16	16	-	16	16	-	16	16	-	16	16	16	-	-
Operating pressure (flanged)	PN	bar	-	-	-	-	25	-	-	25	-	-	25	-	-	25	-	-	25	-	-	-	25	25
Connection thread on meter	G...B	Inch	¾	¾	1	1	-	1	1	-	1	1	-	1¼	1¼	-	1¼	1¼	-	1½	2	2	-	-
Connection thread on coupling	R...	Inch	½	½	¾	¾	-	¾	¾	-	¾	¾	-	1	1	-	1	1	-	1¼	1½	1½	-	-
Nominal flow rate	q _p	m³/h	0,6	1,5	0,6	0,6	0,6	1,5	1,5	1,5	2,5	2,5	2,5	3,5	3,5	3,5	6	6	6	6	10	10	10	15
Maximum flow rate	q _s	m³/h	1,2	3	1,2	1,2	1,2	3	3	3	5	5	5	7	7	7	12	12	12	12	20	20	20	30
Minimum flow rate	q _i	l/h	6	15	6	6	6	15	15	15	25	25	25	35	35	35	60	60	60	60	100	100	100	150
Starting flow		app. l/h	1,2	3	1,2	1,2	1,2	3	3	3	5	5	5	7	7	7	12	12	12	12	20	20	20	30
Kvs-value		m³/h	3,2	3,2	3,2	3,2	3,2	3,2	3,2	6	6	6	10,4	10,4	10,4	16,4	16,4	16,4	16,4	33,2	33,2	33,2	33,2	
Temperature range		°C	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	5..130	
Measuring range	q/q _p		1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	1:100	

Dimensions and weights			US ECHO II																					
Length without couplings	L	mm	110	110	130	190	-	130	190	-	130	190	-	150	260	-	150	260	-	260	200	300	-	-
Height	H	mm	72	72	72	72	72	72	72	72	72	72	77	77	77	77	77	77	77	77	85	85	85	85
Height	h	mm	18	18	18	18	-	18	18	-	18	18	-	23	23	-	23	23	-	23	35	35	-	-
Length with flanges	L	mm	-	-	-	-	190	-	-	190	-	-	190	-	-	260	-	-	260	-	-	-	300	270
Height with flanges	h	mm	-	-	-	-	52,5	-	-	52,5	-	-	52,5	-	-	57,5	-	-	57,5	-	-	-	82,5	82,5
Flange external dimension	D	mm	-	-	-	-	105	-	-	105	-	-	105	-	-	115	-	-	115	-	-	-	165	165
Hole circle diameter	L	mm	-	-	-	-	75	-	-	75	-	-	75	-	-	85	-	-	85	-	-	-	125	125
Number of screws		Pcs.	-	-	-	-	4	-	-	4	-	-	4	-	-	4	-	-	4	-	-	-	4	4
Weight		app. kg	1,1	1,1	1,2	1,5	3,2	1,2	1,5	3,2	1,1	1,4	3,2	1,5	1,9	3,6	2,4	2	3,7	1,8	2,5	5,5	7	6,5

Dimension Diagram US Echo II



Calculator executions

Wall-mounted model (split version)

CF-51

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

CF-55

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