



# CF-51 and CF-55

Combined heat and cooling meter  
for large measuring points  
DN 20 - DN 150

## Your benefits

- Big display:  
Easy to read
- Universal applicable:
  - Wall-mounted model
  - Different power supply possibilities
- Option cards for diverse functionalities:
  - Economical base device
  - Additional functionalities feasible

## Application

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

## Features

- Electronic calculator
- LCD-resolution 7 digits
- Non-volatile memory EEPROM
- Temperature measuring range 0 - 180 °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 or ultrasonic 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 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)

- Documentation: CF-51 Calculator - EPe20526  
Documentation: CF-55 Calculator - EPe20527

# Technical Data

Execution			MTW (horizontal)					MTW-VS or -VF (vertical) <sup>1)</sup>					MTH (horizontal)					MTH-VS or -VF (vertical) <sup>1)</sup>						
Nominal diameter	DN	mm	20	25	32	40	50	20	25	32	40	20	25	32	40	50	20	25	32	40	20	25	32	40
Operating pressure	PN	bar	16	16	16	16	16	16	16	16	16	16	16	16	16	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	1	1¼	1½	2	2¾	1	1¼	1½	2	1	1¼	1½	2
Connection thread on coupling	R...	Inch	¾	1	1¼	1½	2	¾	1	1¼	1½	¾	1	1¼	1½	2	¾	1	1¼	1½	¾	1	1¼	1½
Nominal flow rate	q <sub>p</sub>	m³/h	2,5	3,5	6	10	15	2,5	3,5	6	10	2,5	3,5	6	10	15	2,5	3,5	6	10	2,5	3,5	6	10
Maximum flow rate	q <sub>s</sub>	m³/h	5	7	12	20	30	5	7	12	20	5	7	12	20	30	5	7	12	20	5	7	12	20
Minimum flow rate ±5%	q <sub>i</sub>	l/h	50	70	120	200	300	50	70	120	200	50	70	120	200	300	50	70	120	200	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	2,5	2,5	2,5	25	25	2,5	2,5	2,5	25	2,5	2,5	2,5	25
Kvs-value		m³/h	5	10	12	20	30	5	10	12	20	5	10	12	20	30	5	10	12	20	5	10	12	20
Temperature		max.C°	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Installation position			↔	↔	↔	↔	↔	↑↓	↑↓	↑↓	↑↓	↔	↔	↔	↔	↔	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓
Standard measuring range	q/q <sub>p</sub>		1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	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 or -VF (vertical) <sup>1)</sup>					MTH (horizontal)					MTH-VS or -VF (vertical) <sup>1)</sup>						
Length without couplings	A	mm	220 <sup>2)</sup>	260	260	300	300	105	150	150	200	220 <sup>2)</sup>	260	260	300	300	105	150	150	200	105	150	150	200
Length with couplings		mm	312	352	372	432	452	197	242	262	332	312	352	372	432	452	197	242	262	332	197	242	262	332
Total height	B	mm	127	137	137	163	177	-	-	-	-	133	143	143	169	183	-	-	-	-	-	-	-	-
Meter height from pipe centre line	C	mm	87	94	94	117	120	-	-	-	-	93	100	100	123	126	-	-	-	-	-	-	-	-
Meter depth	D	mm	-	-	-	-	-	148	169	183	226	-	-	-	-	-	148	169	183	226	148	169	183	226
Meter depth from pipe centre line	E	mm	-	-	-	-	-	130	143	156	190	-	-	-	-	-	130	143	156	190	130	143	156	190
Meter width	F	mm	95	100	100	135	151	95	98	101	139	95	100	100	135	151	95	98	101	139	95	98	101	139
Length with flanges PN 16/25	A	mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Height with flanges	H	mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flange external dimension <sup>3)</sup>	D	mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hole circle diameter <sup>3)</sup>	L	mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of screws <sup>3)</sup>		Pcs.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

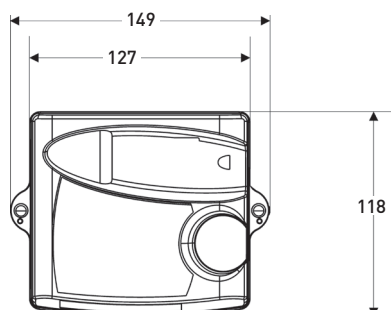
<sup>1)</sup> -VS = Vertical riser / VF = Vertical down pipe

<sup>2)</sup> Also supplied in length 190 mm

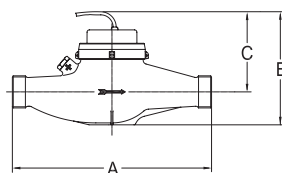
<sup>3)</sup> DIN EN 1092-2

## Dimension Diagram

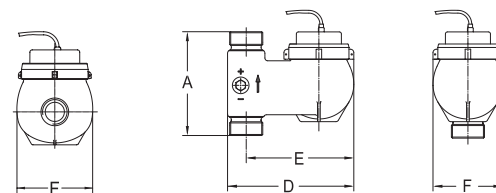
Calculator CF-51/CF-55



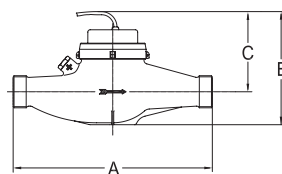
MTW



MTW-V./MTH-V.



MTH



# Technical Data

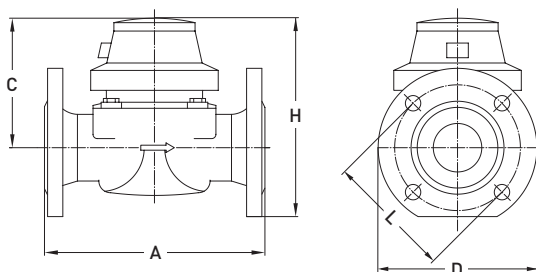
Series			WPD FS										
Nominal diameter	DN	mm	50	50	65	65	80	80	100	100	125	150	150
Operating pressure	PN	bar	-	-	-	-	-	-	-	-	-	-	-
Operating pressure (flanged)	PN	bar	16	16	16	16	16	16	16	16	16	16	16
Connecting thread on meter	G...B	Inch	-	-	-	-	-	-	-	-	-	-	-
Connecting thread on coupling	R...	Inch	-	-	-	-	-	-	-	-	-	-	-
Nominal flow rate	q <sub>p</sub>	m <sup>3</sup> /h	15	15	25	25	40	40	60	60	100	150	150
Maximum flow rate	q <sub>s</sub>	m <sup>3</sup> /h	30	30	50	50	80	80	120	120	200	300	300
Minimum flow rate ±5%	q <sub>i</sub>	m <sup>3</sup> /h	1,5	1,5	2,5	2,5	4	4	6	6	10	15	15
Pulse value of volume measuring meter		l/Imp.	25	25	25	25	25	25	25	25	100	250	250
Kvs-value		m <sup>3</sup> /h	110	110	110	110	340	340	380	380	520	810	810
Temperature range		°C	10...130	10...130	10...130	10...130	10...130	10...130	10...130	10...130	10...130	10...130	10...130
Installation position			↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕
Standard measuring range	q <sub>i</sub> /q <sub>p</sub>		1:10	1:10	1:10	1:10	1:10	1:10	1:10	1:10	1:10	1:10	1:10

Dimensions			WPD FS										
Length without couplings	A	mm	-	-	-	-	-	-	-	-	-	-	-
Length with couplings		mm	-	-	-	-	-	-	-	-	-	-	-
Total height	B	mm	-	-	-	-	-	-	-	-	-	-	-
Meter height from pipe centre line	C	mm	120	120	120	120	150	150	150	150	160	177	177
Meter depth	D	mm	-	-	-	-	-	-	-	-	-	-	-
Meter depth from pipe centre line	E	mm	-	-	-	-	-	-	-	-	-	-	-
Meter width	F	mm	-	-	-	-	-	-	-	-	-	-	-
Length with flanges	A	mm	200	270	200	300	225	300	250	360	250	300	500
Height with flanges	H	mm	193	193	205	205	245	245	255	255	278	312	312
Flange external dimension <sup>3)</sup>	D	mm	165	165	185	185	200	200	220	220	250	285	285
Hole circle diameter <sup>3)</sup>	L	mm	125	125	145	145	160	160	180	180	210	240	240
Number of screws <sup>3)</sup>		Pcs.	4	4	4	4	8	8	8	8	8	8	8

<sup>3)</sup> DIN EN 1092-2

## Dimension Diagram

WPD FS



# Technical Data

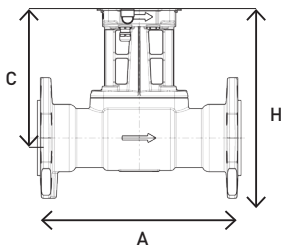
Execution			AXONIC							
Nominal diameter	DN	mm	65	65	80	80	100	100	150	150
Operating pressure	PN	bar	-	-	-	-	-	-	-	-
Operating pressure (flanged)	PN	bar	16	25	16	25	16	25	16	25
Connection thread on meter	G...B	Inch	-	-	-	-	-	-	-	-
Connection thread on coupling	R...	Inch	-	-	-	-	-	-	-	-
Nominal flow rate	q <sub>p</sub>	m <sup>3</sup> /h	25	25	40	40	60	60	150	150
Maximum flow rate	q <sub>s</sub>	m <sup>3</sup> /h	50	50	80	80	120	120	300	300
Minimum flow rate ±5%	q <sub>i</sub>	m <sup>3</sup> /h	0,1	0,1	0,16	0,16	0,24	0,24	0,6	0,6
Pulse value of volume measuring meter		l/Imp.	10	10	10	10	10	10	100	100
Kvs-value		m <sup>3</sup> /h	80	80	110	97	200	200	390	390
Temperature range		°C	1...130	1...130	1...130	1...130	1...130	1...130	1...130	1...130
Installation position			↔ ↑↓	↔ ↑↓	↔ ↑↓	↔ ↑↓	↔ ↑↓	↔ ↑↓	↔ ↑↓	↔ ↑↓
Standard measuring range	q/q <sub>p</sub>		1:250	1:250	1:250	1:250	1:250	1:250	1:250	1:250

Dimension			AXONIC							
Length without couplings	A	mm	-	-	-	-	-	-	-	-
Length with couplings		mm	-	-	-	-	-	-	-	-
Total height	B	mm	-	-	-	-	-	-	-	-
Meter height from pipe centre line	C	mm	204	204	209	209	219	219	244	244
Meter depth	D	mm	-	-	-	-	-	-	-	-
Meter depth from pipe centre line	E	mm	-	-	-	-	-	-	-	-
Meter width	F	mm	-	-	-	-	-	-	-	-
Length with flanges	A	mm	200	300	225	300	360 <sup>4)</sup>	360	500 <sup>5)</sup>	500
Height with flanges	H	mm	297	297	309	309	330	337	387	394
Flange external dimension <sup>3)</sup>	D	mm	185	185	200	200	220	235	285	300
Hole circle diameter <sup>3)</sup>	L	mm	145	145	160	160	180	190	240	250
Number of screws <sup>3)</sup>		Pcs.	4	8	8	8	8	8	8	8

<sup>3)</sup> DIN EN 1092-2    <sup>4)</sup> Also supplied in length 250 mm    <sup>5)</sup> Also supplied in length 300 mm

## Dimension Diagram

AXONIC



## 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