



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

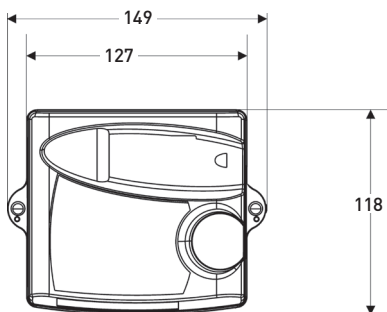
Execution			MTW (horizontal)					MTW-VS or -VF (vertical) ¹⁾					MTH (horizontal)					MTH-VS or -VF (vertical) ¹⁾						
Nominal diameter	DN	mm	20	25	32	40	50	20	25	32	40	20	25	32	40	50	20	25	32	40	20	25	32	40
Operating pressure	PN	bar	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Operating pressure (flanged)	PN	bar	-	-	-	-	-	-	-	-	-	25	25	25	25	25	-	-	-	-	-	-	-	-
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 _p	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 _s	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 _i	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	130	130	130	130	130	130	130	130
Installation position			↔	↔	↔	↔	↔	↑↓	↑↓	↑↓	↑↓	↔	↔	↔	↔	↔	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓
Standard measuring range	q/q _p		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) ¹⁾					MTH (horizontal)					MTH-VS or -VF (vertical) ¹⁾						
Length without couplings	A	mm	220 ²⁾	260	260	300	300	105	150	150	200	220 ²⁾	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	-	-	-	-	-	-	-	-	-	190	260	260	300	300 ³⁾	-	-	-	-	-	-	-	-
Height with flanges	H	mm	-	-	-	-	-	-	-	-	-	140	152	162	192	204	-	-	-	-	-	-	-	-
Flange external dimension ⁴⁾	D	mm	-	-	-	-	-	-	-	-	-	105	115	140	150	165	-	-	-	-	-	-	-	-
Hole circle diameter ⁴⁾	L	mm	-	-	-	-	-	-	-	-	-	75	85	100	110	125	-	-	-	-	-	-	-	-
Number of screws ⁴⁾		Pcs.	-	-	-	-	-	-	-	-	-	4	4	4	4	4	-	-	-	-	-	-	-	-

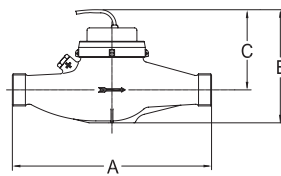
¹⁾ -VS = Vertical riser / VF = Vertical down pipe ²⁾ Also supplied in length 190 mm ³⁾ Also supplied in length 270 mm ⁴⁾ DIN EN 1092-2

Dimension Diagram

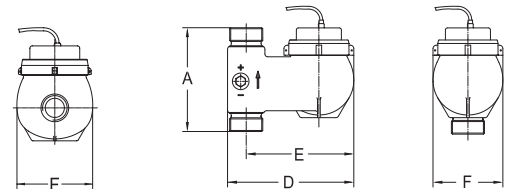
Calculator CF-51/CF-55



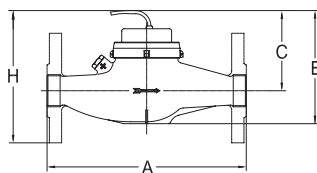
MTW



MTW-V./MTH-V.



MTH



Technical Data

Execution			WPH130										WS130				
Nominal diameter	DN	mm	40	50	65	80	100	125	150	200	250	300	40	50	65	80	100
Operating pressure	PN	bar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Operating pressure (flanged)	PN	bar	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Connection thread on meter	G...B	Inch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Connection thread on coupling	R...	Zoll	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nominal flow rate	q _p	m ³ /h	15	15	25	40	60	100	150	250	400	600	15	15	25	40	60
Maximum flow rate	q _s	m ³ /h	30	30	50	80	120	200	300	500	800	1200	30	30	50	80	120
Minimum flow rate ±5%	q _i	m ³ /h	0,6	0,6	1,0	1,6	2,4	4	6	10	40	60	0,3	0,3	0,5	0,8	1,2
Pulse value of volume measuring meter		l/ Imp.	10	10	10	10	10	100	100	100	100	250	10	10	10	10	10
Kvs-value		m ³ /h	80	120	160	305	500	800	1200	2000	3100	5000	55	55	102	140	205
Temperature range		°C	0,1...130	0,1...130	0,1...130	0,1...130	0,1...130	0,1...130	0,1...130	0,1...130	0,1...130	0,1...130	0,1...130	0,1...130	0,1...130	0,1...130	0,1...130
Installation position			↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕	↔↕
Standard measuring range	q _i /q _p		1:25	1:25	1:25	1:25	1:25	1:25	1:25	1:25	1:10	1:10	1:50	1:50	1:50	1:50	1:50

Dimensions			WPH130										WS130				
Length without couplings	A	mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Length with couplings		mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total height	B	mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meter height from pipe centre line	C	mm	112	115	114	124	124	137	222	222	234	267	113	127	163	160	230
Meter depth	D	mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meter depth from pipe centre line	E	mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meter width	F	mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Length with flanges	A	mm	200	200	200	225 ⁵⁾	250	250	300	350	450	500	300 ⁶⁾	270 ⁷⁾	300	300 ⁸⁾	360 ⁸⁾
Height with flanges	H	mm	177	187	197	219	229	257	357	382	427	497	183	200	250	255	335
Flange external dimension	D	mm	150	165	185	200	220	250	285	340	405	460	150	165	185	200	220
Hole circle diameter	L	mm	110	125	145	160	180	210	240	295	355	410	110	125	145	160	180
Number of screws		Pcs.	4	4	4	8	8	8	8	12	12	12	4	4	4	8	8

⁵⁾ Also supplied in length 200 mm

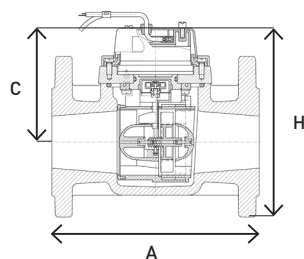
⁷⁾ Also supplied in length 200 mm or 300 mm

⁶⁾ Also supplied in length 200 mm or 270 mm

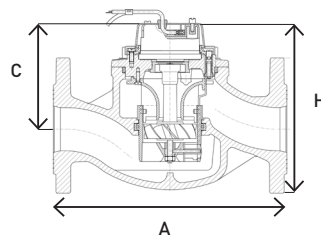
⁸⁾ Also supplied in length 350 mm

Dimension Diagram

WPH130



WS130



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 _p	m ³ /h	25	25	40	40	60	60	150	150
Maximum flow rate	q _s	m ³ /h	50	50	80	80	120	120	300	300
Minimum flow rate ±5%	q _i	m ³ /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 ³ /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 _p		1:250	1:250	1:250	1:250	1:250	1:250	1:250	1:250

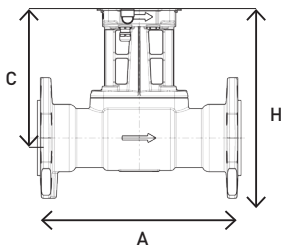
Dimension			AXONIC							
Length without couplings	A	mm	-	-	-	-	-	-	-	-
Length with couplings		mm	-	-	-	-	-	-	-	-
Total height	B	mm	-	-	-	-	-	-	-	-
Meter height from pipe centre line	C	mm	204	204	209	209	219	219	244	244
Meter depth	D	mm	-	-	-	-	-	-	-	-
Meter depth from pipe centre line	E	mm	-	-	-	-	-	-	-	-
Meter width	F	mm	-	-	-	-	-	-	-	-
Length with flanges	A	mm	200	300	225	300	360 ⁹⁾	360	500 ¹⁰⁾	500
Height with flanges	H	mm	297	297	309	309	330	337	387	394
Flange external dimension	D	mm	185	185	200	200	220	235	285	300
Hole circle diameter	L	mm	145	145	160	160	180	190	240	250
Number of screws		Pcs.	4	8	8	8	8	8	8	8

⁹⁾ Also supplied in length 250 mm

¹⁰⁾ 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