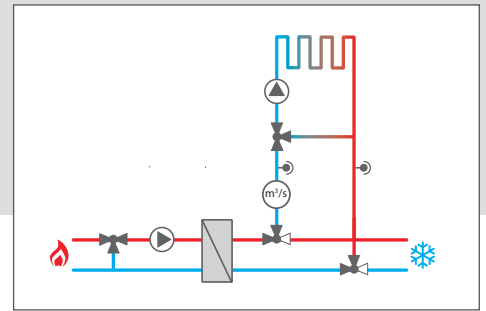


EXAMPLE



EXAMPLE

WMZ Plus Calorimeter

Universal calorimeter module for solar, heating and cooling systems. Graphic display for indication of flow and return temperature, heat quantity, flow rate and sensor faults (balance values are also stored in case of a power failure). Suited for systems with water or water-glycol mixtures (water, propylene glycol, ethylene glycol and Tyfocor® LS adjustable).

- Single or combined measurement of heat and cold energy
- Two independent calorimeters
- Commissioning menu for easy configuration
- Conversion into selectable alternative units (€, kg CO₂, m³ gas, etc.)

TECHNICAL DATA

Inputs:

4 Pt1000 temperature sensors, 2 impulse inputs (adjustable), 2 4-20 mA inputs (convertible to 0-10 V), 2 analogue Grundfos Direct Sensors™ (VFS)

Outputs: 2 SO outputs

Power supply: 100–240 V~ (50–60 Hz)

Standby: 0.99 W

Settings:

- **Volumetric content of glycol:** 0... 70 % (1- % steps)

- **Impulse rate of flow rate:** 0 ... 99 l/Imp (1- l/Imp steps) for V40 flowmeter

Temperature measurement: with Pt1000 sensors and Grundfos Direct Sensors™ (VFS)

Measuring accuracy: ± 0.3 K

Measuring range: -40 ... +120 °C

Data interface:

VBus®, MicroSD card slot

Display:

graphic display, operating control LED (Lightwheel®)

Operation: 2 buttons and 1 adjustment dial (Lightwheel®)

Ingress protection: IP 20/EN 60529

Protection class: I

Ambient temperature: 0 ... 40 °C

Relative humidity: 10 ... 90 %

Fuse: T200mA

Maximum altitude: 2000 m above MSL

Dimensions: 110 x 166 x 47 mm

Article no.	Article	Price bracket
135 307 23	WMZ Plus – Calorimeter module	B
135 307 43	WMZ Plus – Full kit » incl. 2 Pt1000 sensors (2 x FRP30) and V40-15 flowmeter	B
135 307 53	WMZ Plus – Full kit » incl. 2 Pt1000 sensors (2 x FRP30) and V40-25 flowmeter	B
135 307 63	WMZ Plus – Full kit » incl. 2 Pt1000 sensors (2 x FRP30) and V40-35 flowmeter	B
135 307 73	WMZ Plus – Full kit » incl. 2 Pt1000 sensors (2 x FRP30) and V40-60 flowmeter	B
135 307 83	WMZ Plus – Full kit » incl. 2 Pt1000 sensors (2 x FRP30) and V40-100 flowmeter	B
135 307 93	WMZ Plus – Full kit » incl. 2 Pt1000 sensors (2 x FRP30) and V40-150 flowmeter	B

ACCESSORIES

V40



The RESOL V40 is a measuring instrument with a contactor for measuring the flow

Calorimeter extension kits



Calorimeter extension kits (consisting of 2 x FRP30, 1 x flowmeter)



V40 Flowmeter

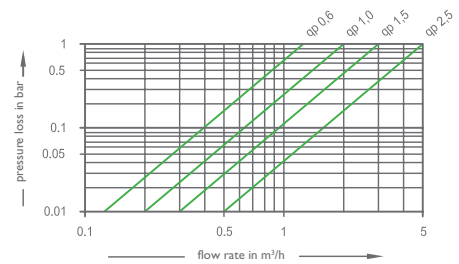
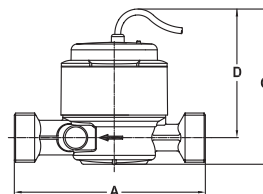


The RESOL V40 is a measuring instrument with a contactor for measuring the flow of water or water-glycol mixtures and can be connected directly to the controller or calorimeter for heat quantity measurement. After a specific volume has passed, the V40 reed switch sends an impulse to the calorimeter.

The heat quantity used is calculated by these impulses, the temperature difference and pre-defined parameters (glycol type, concentration, heat capacity etc.). Fitting included.

VERSION 1

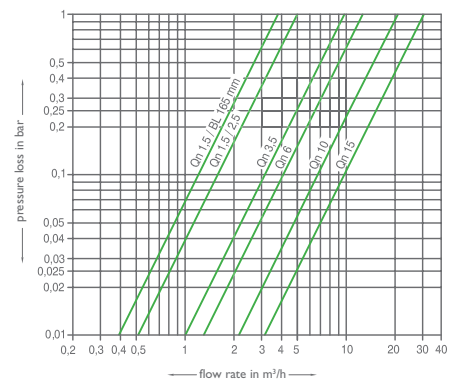
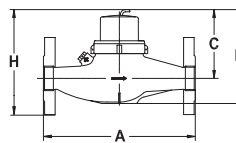
Irradiation impeller DN20	0.6; 1.5 m ³ /h	2.5 m ³ /h
A mounting length without fitting	110 mm	130 mm
mounting with fitting	208 mm	228 mm
C height with pulser	108 mm	
D height at centre of pipe	90 mm	
counter width	72 mm	
weight without fitting	0.7 kg	



Vertical and horizontal mounting is possible

VERSION 2

Irradiation impeller DN25/DN40/DN50	3.5 m ³ /h	6.0 m ³ /h	10 m ³ /h	15 m ³ /h
A mounting length without fitting	260 mm	300 mm		
B total height	143 mm	169 mm	183 mm	
C height at centre of pipe	100 mm	123 mm	126 mm	
H height with flange	152 mm	192 mm	204 mm	
weight with fitting	3.2 kg	6.4 kg	7.4 kg	
weight without fitting	2.7 kg	5.3 kg	5.8 kg	



Horizontal mounting is possible

Type		V40-15	V40-25	V40-35	V40-60	V40-100	V40-150
Version		1	1	2	2	2	2
Impulse rate	l/Imp	1	25	25	25	25	25
Nominal width	DN	20	20	25	25	40	50
Connection thread at the counter	G...B "	1	1	1 ¼	1 ¼	2	2 ¾
Connection thread of the fitting	R... "	¾	¾	1	1	1 ½	2
Max. operat. pressure	P _{max} bar	16	16	16	16	16	16
Max. operat. temperature	T _{max} °C	120	120	130	130	130	130
Nominal flow	Q _n m ³ /h	1.5	2.5	3.5	6	10	15
Maximum flow	Q _{max} m ³ /h	3	5	7	12	20	30
Insulation limit ± 3%	Q _t l/h	120	200	280	480	800	1200
Minimum flow horizontal	Q _{min} l/h	30	50	70	120	200	300
Minimum flow vertical	Q _{min} l/h	60	100	-	-	-	-

Article no.	Article	Price bracket
280 016 80	V40-15 flowmeter	B
280 011 20	V40-25 flowmeter	B
280 013 60	V40-35 flowmeter	B
280 013 70	V40-60 flowmeter	B
280 013 90	V40-150 flowmeter	B