

GE555Y470

Description

The metering module of the GE555-1 series is used to measure heat energy consumption (heating and/or conditioning) in centralized systems with the centralised production of hot sanitary water as well. The module is able to guarantee the correct operating conditions for the heat energy meter and can house 3/4" distribution manifolds (to be ordered separately). Brackets, air vent valves, filler/drain taps and terminal plug are included. The module can be used for both heating and conditioning, using the double-register heat energy meters of the GE552 series (to be ordered separately). In addition, units can be installed for metering the consumption of hot/cold sanitary water and/or service water GE550 or GE550-1 series (to be ordered separately).

Versions and product codes

Product codes	Type of balancing	Connections	Nr. of guides for sanitary units	Dimensions [mm]	Max. no. of manifold units
GE555Y470	static + by-pass	3/4"	3	600x1100x110÷160	9

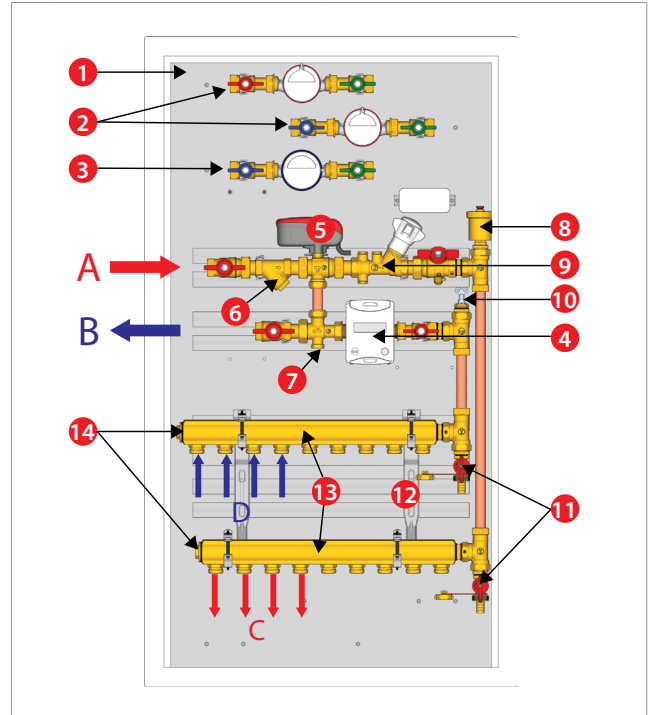
Main characteristics

- Connections 3/4"
- Possibility to install distribution manifolds with 3/4" connections, 50 mm centre distance, R551, R551S, R580 series (max. 9 units).
- Flush-mounting cabinet with padlock and guides for fixing metering units. Adjustable frame depth (110-160 mm) and hot-painted door (white RAL9010).
- 3-way zone valve, motorized.
- Plastic spacer for installation of energy meter.
- Electric box IP55, with electric terminal board.
- Rails for installation of sanitary water units, GE550 or GE550-1 series.
- Drain tap and automatic air vent valve for distribution manifolds already included in the cabinet.

Technical data

- Max. working temperature: 110 °C (90 °C with plastic spacer)
- Max. working pressure: 16 bar (10 bar with plastic spacer)

Components



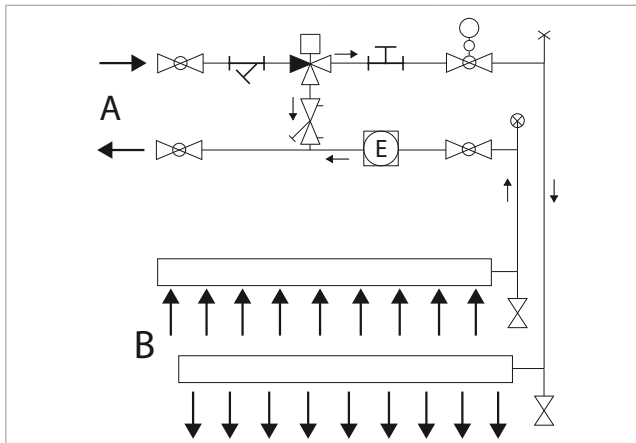
Legend

1	Metal cabinet
2	Units for hot and cold sanitary water (optional)
3	Unit for service water (optional)
4	Thermal energy meter (optional)
5	Actuator for zone valve (optional)
6	Filter
7	By-pass adjustment lockshield valve
8	Automatic air vent valve
9	Static balancing valve R206B
10	Cap with manual air vent valve
11	System filler/drain taps
12	Brackets for distribution manifolds
13	Distribution manifolds (optional)
14	Terminal caps for manifolds
A: primary delivery	
B: primary return	
C: radiant system delivery	
D: radiant system return	

Optional

- Thermal energy meter, GE552 series
- Sanitary water units (hot, cold, service water), GE550 series
- Sanitary water units with thermostat mixer, GE550-1 series
- Actuator for zone valve, K270 series
- Components for M-Bus data centralization GE552-4 series, or Wireless M-Bus GE552-W series.

Operation



Legend

	Shut-off valve		Connection point for energy meter
	Filter		Housing for energy meter delivery temperature probe
	3-way motorised zone valve		Adjustment lockshield valve for the third passage of the zone valve
	Filler/drain tap		Static balancing valve
	Manual air vent valve		Automatic air vent valve
	Distribution manifold		
A	Centralised utility room	B	Heating and/or conditioning system

Il fluido termovettore proveniente dal locale tecnico centralizzato (A), entra nello stacco superiore di mandata: se la valvola di zona è aperta, il fluido arriva all'utenza (B); se la valvola di zona è chiusa il flusso ritorna verso (A) tramite la terza via della valvola di zona. La valvola di zona è comandata da un attuatore attivato da un termostato.

Il contatore di energia termica misura la portata e la differenza di temperatura del fluido termovettore tra la mandata e il ritorno, attraverso le sonde di temperatura: con queste misure determina il consumo di energia termica.

Dopo aver attraversato lo stacco di contabilizzazione, il fluido termovettore arriva nei collettori di distribuzione dell'impianto di riscaldamento/condizionamento.

Installation



Warning.

Respect the regulations regarding the use (installation, fixing, etc.), operation, recalibration and replacement of the meters. Refer also to the assembly instructions provided with the meter.

1) Connecting the module to the pipes of the heating and/or conditioning system.

To connect the module units to the system (heating and/or conditioning) pipes, you can disconnect the shut-off valves as they are connected by means of detachable nuts. Once the free valve connections have been firmly fixed to the system pipes, reconnect the valves (interposing the gaskets) then tighten the nuts.

2) Washing the system

The Standards (UNI EN 1432) indicate that the system must be washed before installing the energy meters. At the end of the washing, clean well the filter.

3) Installing the thermal energy meter

When the system has been washed, you can replace the plastic spacer with the thermal energy meter (Centre distance 110 mm for 3/4" modules GE555Y461, GE555Y462, GE555Y468 - Centre distance 130 mm for 1" modules GE555Y463, GE555Y469).

The module is provided with a mounting kit to be able to separately install the hydraulic part and the display of the energy meters.



Avvertenza.

For the thermal energy meter installation please refer to the instruction provided with the meter.

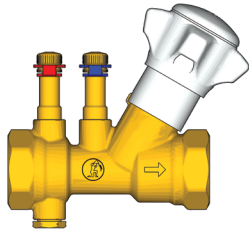
4) Installing the distribution manifolds

Install the 3/4" distribution manifolds using the self-sealing fittings and the metallic brackets already in the cabinet. Use the plugs to close the collectors.

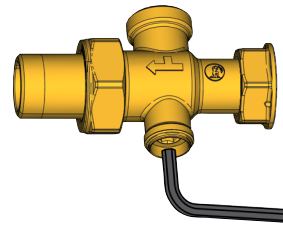
5) Testing the system

After making the installations, test the pressurised system according to the requirements of regional/national standards.

Hydraulic characteristics

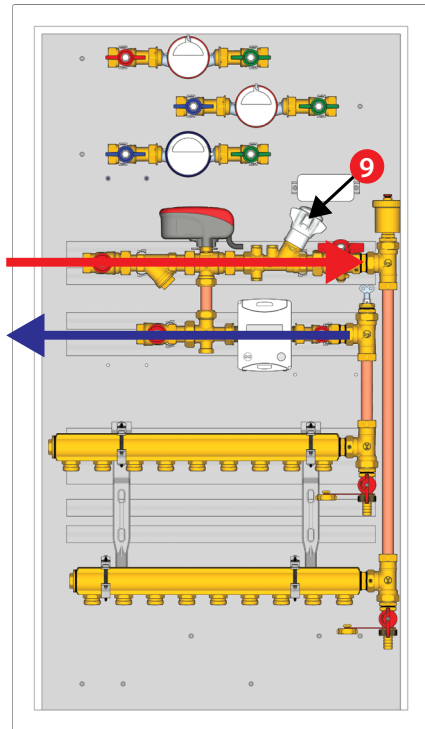


Static balancing valve **9**
 Graduated scale on the handle

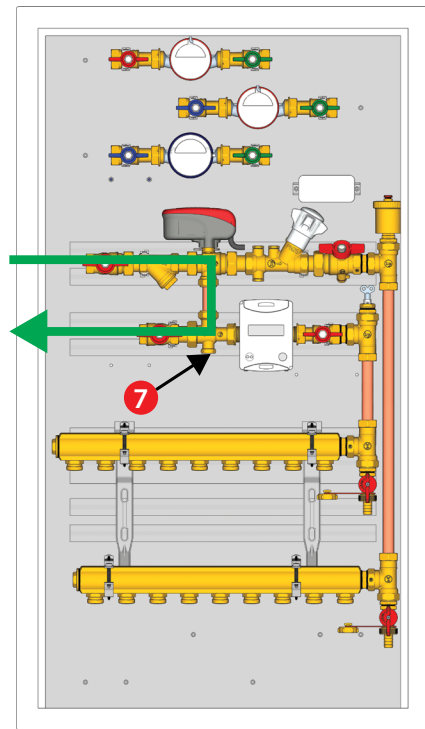


Zone valve by-pass lockshield valve **7**
 Use an 8 mm Allen spanner

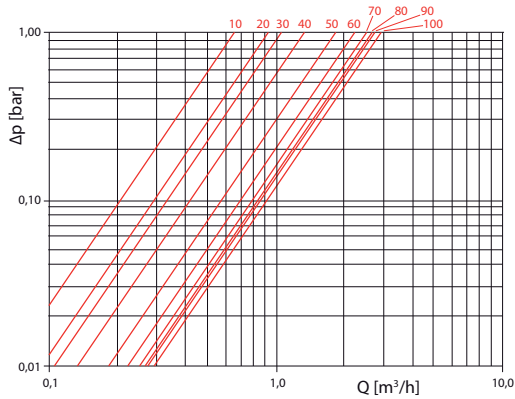
GE555Y470



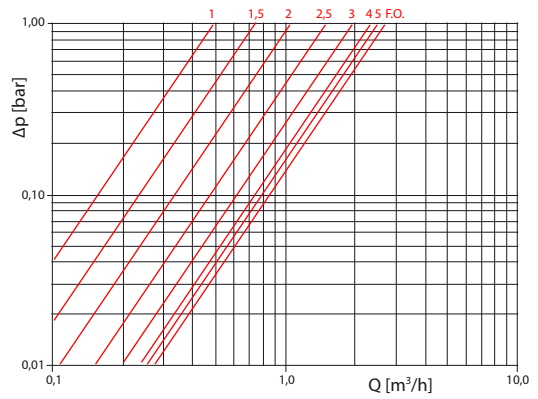
Direct delivery and return (zone valve open)



Passage via by-pass (zone valve closed)



Balancing valve regulation 9	10	20	30	40	50	60	70	80	90	100
Kv	0,65	0,88	1,05	1,25	1,80	2,25	2,50	2,65	2,70	2,90



No. of by-pass turns 7	1	1,5	2	2,5	3	4	5	F.O.
Kv	0,5	0,75	1,1	1,5	2	2,4	2,5	2,75



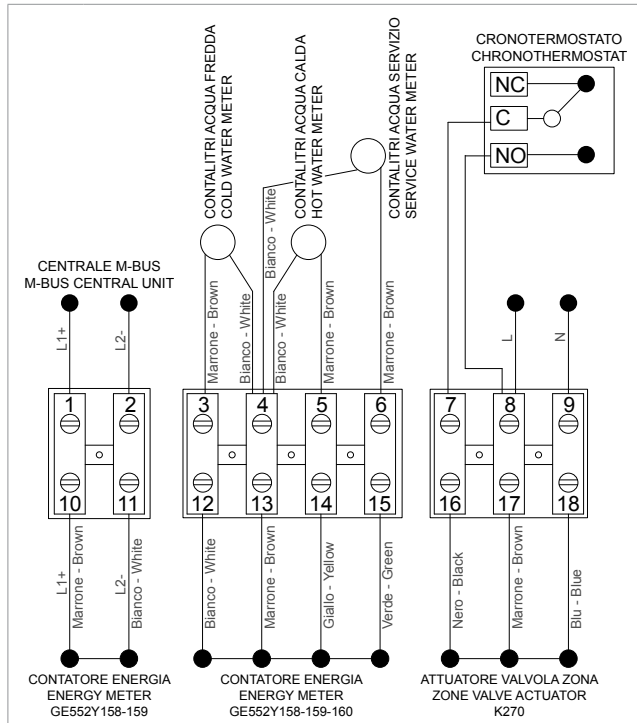
Electrical connections



Warning.
Ensure that the power supply is suspended while the connections are being carried out.

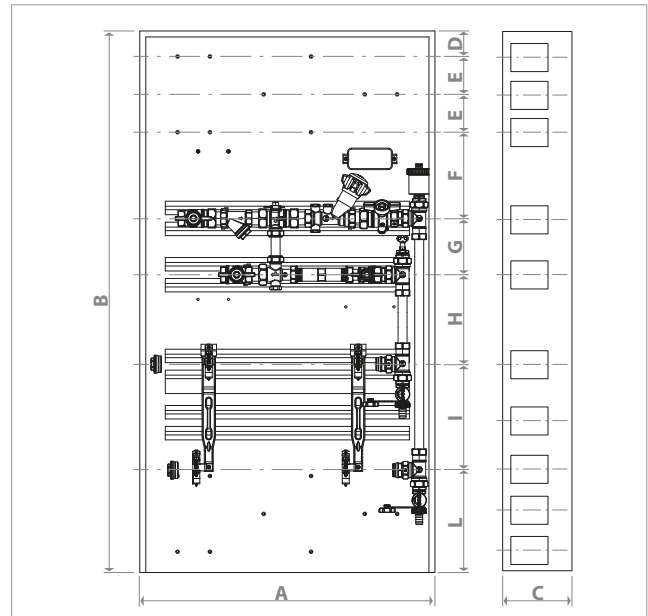


Nota.
The showed electric scheme is about the connections of GE552Y158, GE552Y159 thermal energy meters. In the case of installation of other energy meters refer to the instructions of the meters themselves.



Terminal	Function
1	Cable transmitting M-Bus data to the data concentrator: connection of wire L1+. Cable Ø 0,8 mm, twisted, 2-wire, non-shielded, with a maximum line capacity of 150 pF/m (16 o 18 AWG)
2	Cable transmitting M-Bus data to the data concentrator: connection of wire L2-. Cable Ø 0,8 mm, twisted, 2-wire, non-shielded, with a maximum line capacity of 150 pF/m (16 o 18 AWG)
3	Connection for M-Bus centralization of water meters
4	Connection for M-Bus centralization of water meters
5	Connection for M-Bus centralization of water meters
6	Connection for M-Bus centralization of water meters
7	Connection to the chronothermostat, to the common C terminal of the internal contact (cable section 0,5 mm ²)
8	In parallel: connection to the chronothermostat, to the normally open NO terminal of the internal contact (cable section 0,5 mm ²)
9	Connection of power supply 24 V~ or 230 V~ (cable section 0,5 mm ²)
10	Connection of L1+ brown wire of thermal energy meter
11	Connection of L2- white wire of thermal energy meter
12	Connection for M-Bus centralization of water meters
13	Connection for M-Bus centralization of water meters
14	Connection for M-Bus centralization of water meters
15	Connection for M-Bus centralization of water meters
16	Connection K270 zone valve actuator, black wire
17	Connection K270 zone valve actuator, brown wire
18	Connection K270 zone valve actuator, blue wire

Dimensions



Product code	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	L [mm]
GE555Y470	600	1100	110÷160	55	76	173	113	179	213	215

Reference Standards

- UNI EN 1434
- EN 60751
- EN 61107

Product specifications

GE555Y470

User module for centralised heating and conditioning systems, with the possibility to install distribution manifolds in the same cabinet. Connections 3/4". Shut-off ball valves on delivery and return. Filter with basket. Motorized 3-way zone valve with lockshield valve for bypass balancing. Suitable for assembly of energy meter thanks to plastic spacer on the return line (centre distance 110 mm). Bracket for fixing the energy meter display unit. Housing for delivery temperature probe built into the shut-off ball valve. IP55 cabinet with terminal board for electric connections. Three guides for assembly of units for metering sanitary water and/or service water. Painted sheet metal cabinet (RAL9010) with lockable door and adjustable frame depth. Dimensions 600x1100x110÷160 mm (LxHxD). Max. working temperature 110 °C (90 °C with plastic spacer). Max. working pressure 16 bar (10 bar with plastic spacer). The module can be completed by separately ordering: thermal energy meters of the GE552 series. Units GE550 or GE550-1 series for metering sanitary water and/or service water. Actuator K270 for 3-way zone valve. Distribution manifolds with 3/4" connections, 50 mm centre distance, R551, R551S, R580 series (max. 9 units). Components for centralisation and remote command of consumption data via M-Bus, GE552-4 series or via Wireless M-Bus, GE552-W series.

Additional information

For additional information please check the website www.giacomini.com or contact the technical service: ☎ +39 0322 923372 📠 +39 0322 923255 ✉ consulenza.prodotti@giacomini.com
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