



May the long time sun Shine upon you,  
And the pure light within you, Guide your way on.



**HAPPYLIFE INDUSTRY CORP. LTD.**

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**HAPPYLIFE INDUSTRY CORP. LTD.**

## ABOUT HAPPYLIFE

HAPPYLIFE INDUSTRY CORP. LTD. is an industrial corporation, which involves in integrating designing, manufacturing, marketing and service on heating and sanitary lines. HAPPYLIFE was established in 1986, head office is located in Cardiff, UK, and factory is located in Ningbo, China.

HAPPYLIFE is dedicated to applying hi-tech to our products and brand-new idea to research. HAPPYLIFE pursues "six-heart" management conception with conscientious administration and production, high quality, fast delivery, satisfying service to reassure our clients, we provide you China most competitive and good quality products.

HAPPYLIFE clarifies the products from function and outlook according to your requirements, all our products are provided with detailed instruction.

HAPPYLIFE insists on high quality products and services, we expect to be your friend forever, we will fulfill our promises sincerely.

## CULTURE

### VISION

To become a well-known enterprise in the world on HVAC and SANITARY business

### MISSION

Relying on our professional products and service, to improve environment for the people

### VALUES

Integrity Responsible Participation  
Thanksgiving longinquity



## History

2023

HAPPYLIFE has successfully developed world-wide market, supplies 30000+ items of heating & sanitary lines to 80+ countries in 5 continents.

2014

After many years of industrialization highly developing in sea board areas of china, the cost on labours increased too much, HAPPYLIFE responds the government's call on low-carbon & energy saving, replaces with automatic equipments, sets up research and development center, works specially on high lever hydronic solutions in china and all other countries,trying to make effortson building comfortable & healthy environment for the people.

2010

Ventitek trademark registration completed.

2009

Economic crisis happened all over the world in 2009, the economicof china was still much better than other countries, HAPPYLIFE starts marketing in china for Ventitek hydronic solutions.

2006

HAPPYLIFE INDUSTRY CORP. LTD. head office was set up in Cardiff, UK, starts to scheme world marketing and develop complete series of products for Ventitek hydronic solutions.

1998

HAPPYLIFE starts exporting sanitary and heating products to all over the world, china is called as "world manufacturer" due to huge exporting, HAPPYLIFE is a part of the "world manufacturers".

1986

Factory was established, HAPPYLIFE developed series of valves products, for water heaters and gas burners, sold in west-southern cities of china.



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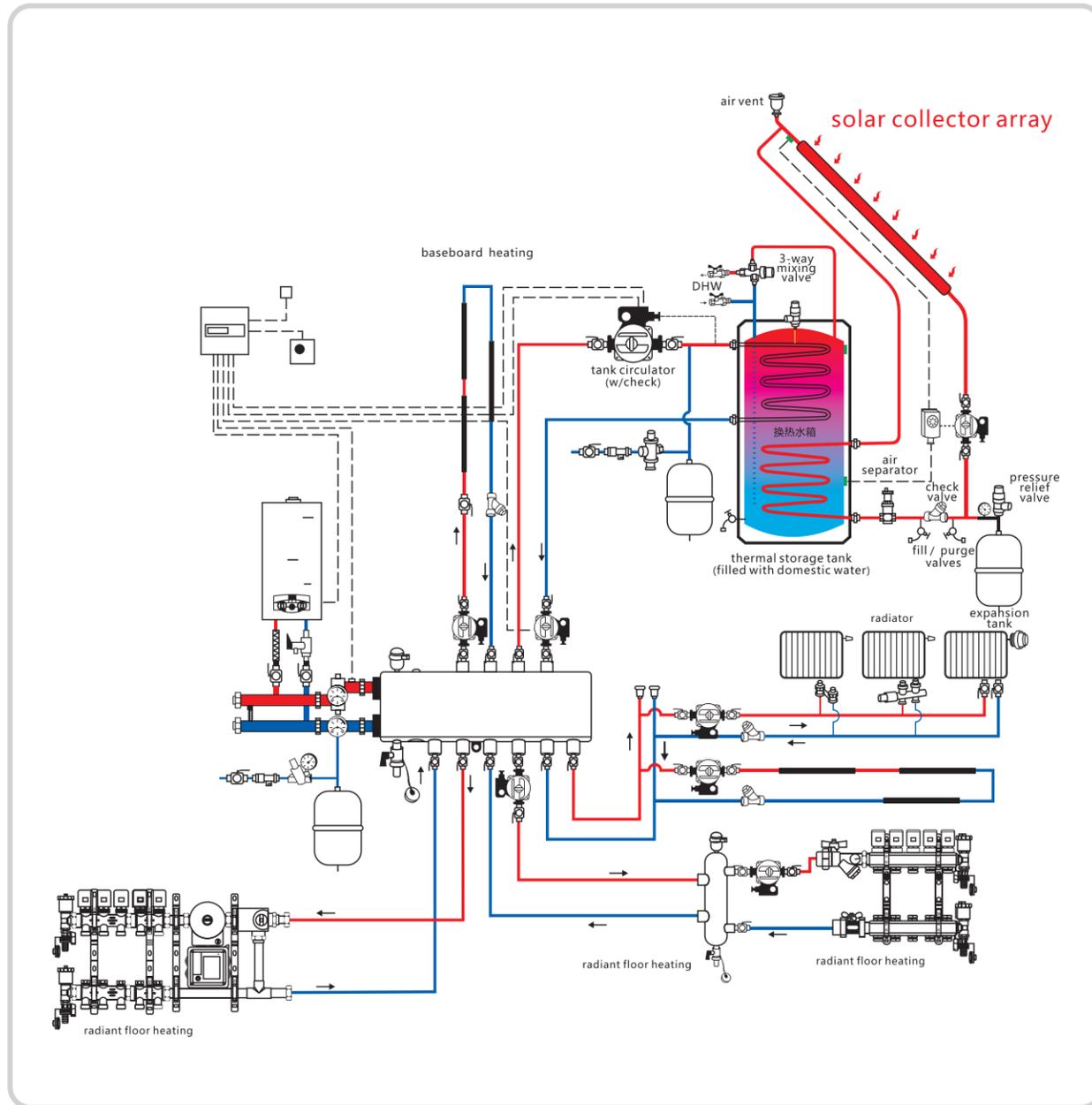
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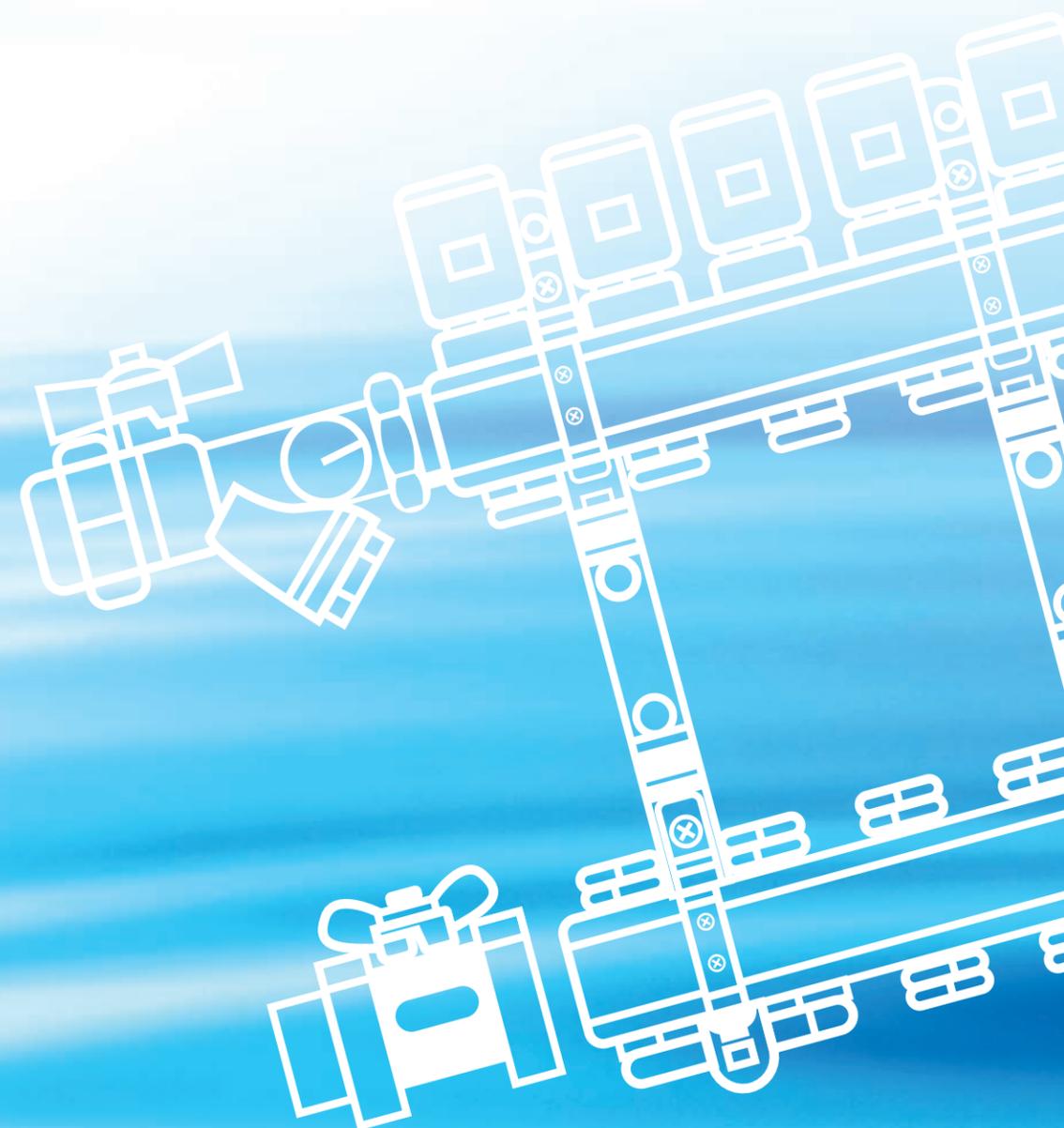
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## Graphic Solution for Heating System



# 1 Heating Distribution System & Fittings



# HEATING DISTRIBUTION SYSTEM & FITTINGS



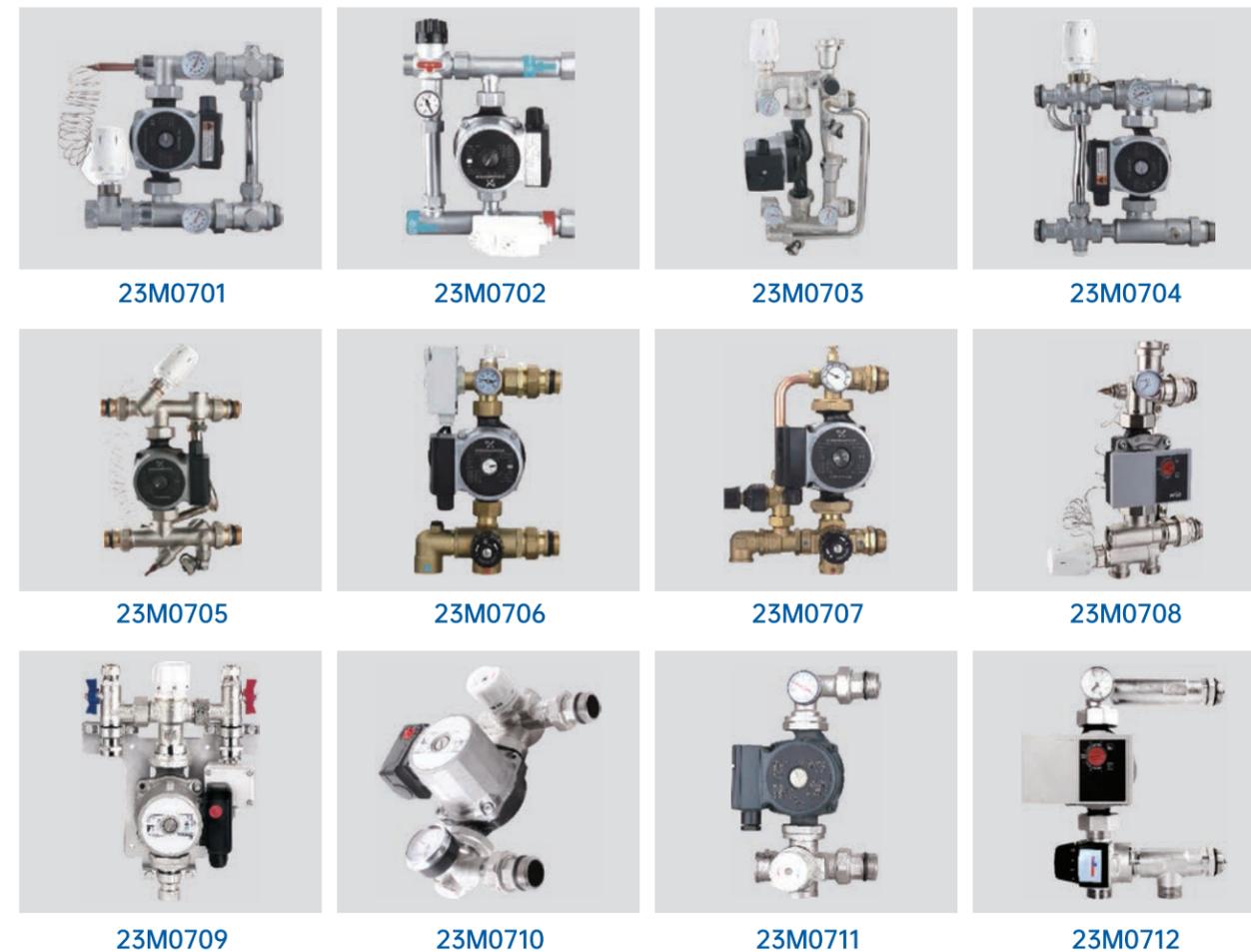
### Technology data:

Nominal diameter: DN25  
 Upper nozzle G1": Female Thread  
 Lower nozzle G1-1/2": Male Thread (Flat seal)  
 Nozzle spacing: 125mm  
 Maximum working temperature: 110°C  
 Working pressure: PN6  
 Pump installation length: 180mm  
 Thermometer range: 0-120°C  
 Kvs: 9.7m<sup>3</sup>/h (Direct circulation pump set)  
 Kvs: 6.5h (Mixed water circulation pump set)

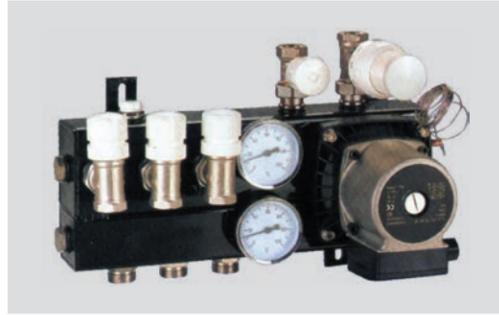
### Advanced heating distribution system

#### Product advantage:

Modular heating and heat distribution system designed for singlefamily and town houses, time-saving and labor-saving installation. All modules are pre-assembled and sealed in our own factory, direct installation on the construction site, eliminating the need for cumbersome work and compact structure, save installation space, high quality EPP packaging, reduce heat loss, beautiful appearance, all possible system installations can achieve rich application possibilities through building block connection, suitable for medium and low power heating systems, such as high temperature radiator heating, low temperature surface auxiliary heating, anti-condensation, various separations such as system separation follow the advanced system design concept of Germany, more even distribution of heat, easy stratification and zone control of the heating system of the villa, saving energy and easy maintenance.



- 23M0701**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"
- 23M0702**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"
- 23M0703**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"
- 23M0704**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"
- 23M0705**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"
- 23M0706**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"
- 23M0707**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"
- 23M0708**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"
- 23M0709**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"
- 23M0710**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"
- 23M0711**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"
- 23M0712**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"



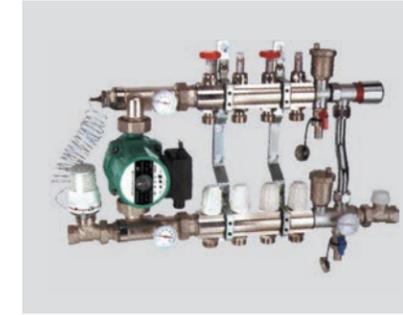
**23M0713**  
Composite Manifolds  
Size: 1/2"x3/4"



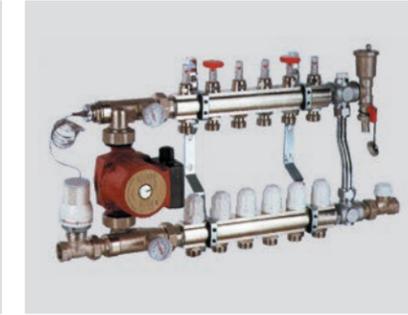
**23M0714**  
Composite Manifolds  
Size: 1/2"x3/4"



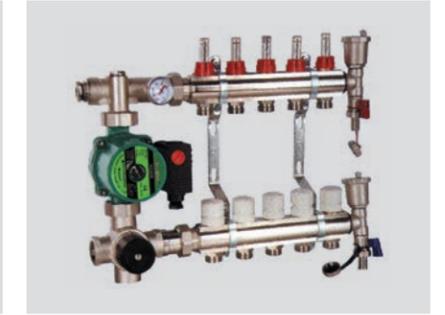
**23M0715**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 3/4"x1"



**23M0601**  
Composite Manifolds  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Ways: 2-12  
Size: 1"x3/4"x18mm



**23M0602**  
Composite Manifolds  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Ways: 2-12  
Size: 1"x3/4"x18mm



**23M0603**  
Composite Manifolds  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Ways: 2-12  
Size: 1"x3/4"x18mm



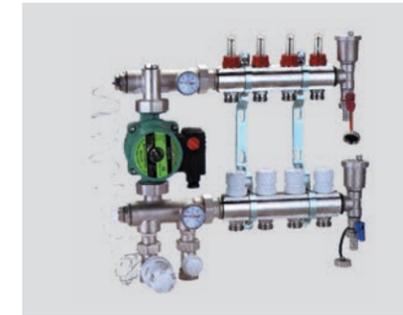
**23M0716**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 3/4"x1"



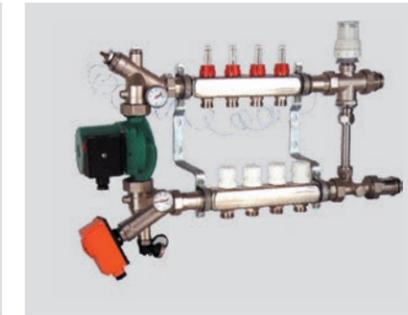
**23M0717**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"



**23M0718**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"



**23M0604**  
Composite Manifolds  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Ways: 2-12  
Size: 1"x3/4"x18mm



**23M0605**  
Composite Manifolds  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Ways: 2-12  
Size: 1"x3/4"x18mm



**23M0606**  
Composite Manifolds  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Ways: 2-12  
Size: 1"x3/4"x18mm



**23M0719**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"



**23M0720**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"



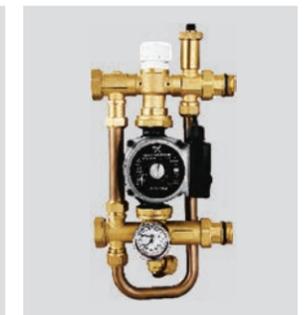
**23M0721**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"



**23M0722**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"



**23M0607**  
Composite Manifolds  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Ways: 2-12  
Size: 1"x3/4"x18mm



**23M0723**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"



**23M00724**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"



**23M00725**  
Pump Mixing System  
Brass body  
Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: 0-100°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1"







**23VT0101**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VT0102**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VT0103**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VT0104**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VT0105**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"



**23VE0101**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VE0102**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VE0103**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VE0104**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VE0105**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VE0106**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"



**23VE0107**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VE0108**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VE0109**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VE0110**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VE0111**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"

**23VE0112**

Straight ball valve with thermometer  
Forged brass body Sand blasting and nickel plated  
Nominal pressure: max 10bar  
Temperature: -10-110°C  
Threaded ISO228/1  
100% leakage tested  
Size: 1", 1 1/4"



**23VE0113**

End valve for manifolds  
Size: 1"

**23VE0114**

End valve for manifolds  
Size: 1"

**23VE0115**

Drain Valve  
Size: 3/4", 1/2"

**23VE0116**

Drain Valve  
Size: 3/4", 1/2"

**23MP0101**

Connector for recycle pump  
Size: 1"

**23MP0102**

Connector for recycle pump  
Size: 1"



**23MP0103**

3-way for end of manifolds  
Size: 1" x 1/2"

**23MP0104**

Drain valve  
Size: 1/2"

**23MP0105**

Brass connector  
size: 1/2" x 3/4"

**23MP0106**

Brass connector  
size: 1/2" x 3/4"

**23MP0107**

Brass bridge for By-Pass Valve

**23MP0108**

Brass bridge for By-Pass Valve



**23MP0109**

Lockshield valve  
Size: 1/2" x 3/4"

**23MP0110**

Thermostatic core  
Size: 1/2" x 3/4"

**23MP0111**

Lockshield valve  
Size: 1/2" x 3/4"

**23MP0112**

Flow meter  
Size: 1/2" x 3/4"

**23MP0113**

Flow meter  
Size: 1/2" x 3/4"

**23MP0114**

Magnetic flowmeter  
Size: 1/2" x 3/4"



**23MP0115**

Brass blind plug  
Size: 1", 1 1/4", 1-1/2"

**23MP0116**

Brackets for manifolds

**23MP0117**

Brackets for manifolds

**23MP0118**

Brackets for manifolds

**23MP0119**

Brackets for manifolds

**23MP0120**

Brackets for manifolds



**23MP0121**

Compression nut  
Size: 1/2" x 16, 3/4" x 16, 3/4" x 18, 3/4" x 20

**23MP0131**

Thermometer  
Size: 1/4", 1/2"

**23MP0132**

Pressure gauge  
Size: 1/4", 3/8", 1/2"

**23MP0133**

Pressure gauge with thermometer  
Size: 1/4", 3/8", 1/2"



**23MP0141**

Cabinet for manifolds  
Size: 400x450x150, 600x450x150, 800x450x150, 1000x450x150

**23MP0151**

Room temperature control valve  
Size: 3/4" x 18

**23MP0152**

Room temperature control return valve  
Size: 3/4" x 18



**Thermostat**  
Power source : AC220V 50/60Hz  
Maximum load electric current : 3A/230VAC  
Room temperature setting range: 5°C-35 °C  
Accuracy: 0.1°C

Working environment temperature: 0°C- 50°C  
Floor protect temperature : 20°C-45°C  
The storage temperature: -10°C-60°C  
Dimensions: 88mm × 88mm×13mm

**Immersion Type Temperature Controller**  
Size: 1/2"

**Paste Type Temperature Controller**  
Size: 1/2"



**23TE0101**  
**Thermostatic Electric Actuator**  
Opera.voltage:230 V AC 50/60 Hz  
Power cons.: 2 W  
Switch-on curr.: max.300 mA  
Protection: Class II Ip54  
Storage temp.:25°C-65°C  
Rel.Humidity: max.80% non condensing

**23TE0102**  
**Thermostatic Electric Actuator**  
Opera.voltage:230 V AC 50/60 Hz  
Power cons.: 2 W  
Switch-on curr.: max.300 mA  
Protection: Class II Ip54  
Storage temp.:25°C-65°C  
Rel.Humidity: max.80% non condensing

**23TE0103**  
**Thermostatic Electric Actuator**  
Opera.voltage:230 V AC 50/60 Hz  
Power cons.: 2 W  
Switch-on curr.: max.300 mA  
Protection: Class II Ip54  
Storage temp.:25°C-65°C  
Rel.Humidity: max.80% non condensing

**23TE0104**  
**Thermostatic Electric Actuator**  
Opera.voltage:230 V AC 50/60 Hz  
Power cons.: 2 W  
Switch-on curr.: max.300 mA  
Protection: Class II Ip54  
Storage temp.:25°C-65°C  
Rel.Humidity: max.80% non condensing



**23TE0105**  
**Thermostatic Electric Actuator**  
Opera.voltage:230 V AC 50/60 Hz  
Power cons.: 2 W  
Switch-on curr.: max.300 mA  
Protection: Class II Ip54  
Storage temp.:25°C-65°C  
Rel.Humidity: max.80% non condensing

**23TE0106**  
**Thermostatic Electric Actuator**  
Opera.voltage:230 V AC 50/60 Hz  
Power cons.: 2 W  
Switch-on curr.: max.300 mA  
Protection: Class II Ip54  
Storage temp.:25°C-65°C  
Rel.Humidity: max.80% non condensing

**23TE0107**  
**Thermostatic Electric Actuator**  
Opera.voltage:230 V AC 50/60 Hz  
Power cons.: 2 W  
Switch-on curr.: max.300 mA  
Protection: Class II Ip54  
Storage temp.:25°C-65°C  
Rel.Humidity: max.80% non condensing

**23TE0108**  
**Thermostatic Electric Actuator**  
Opera.voltage:230 V AC 50/60 Hz  
Power cons.: 2 W  
Switch-on curr.: max.300 mA  
Protection: Class II Ip54  
Storage temp.:25°C-65°C  
Rel.Humidity: max.80% non condensing

**23TE0109**  
**Thermostatic Electric Actuator**  
Opera.voltage:230 V AC 50/60 Hz  
Power cons.: 2 W  
Switch-on curr.: max.300 mA  
Protection: Class II Ip54  
Storage temp.:25°C-65°C  
Rel.Humidity: max.80% non condensing



**23RT0101**  
**Electronic Radiator Thermostat**  
Power: 2\*AA\* 1.5V alkaline batteries  
Display accuracy: 0.5°C  
Probe sensor:: NTC(10k)1%  
Working environment temperature: 0-50°C  
Default range of temperature adjustment: 5-35°C  
Range of temperature display: 1-70°C

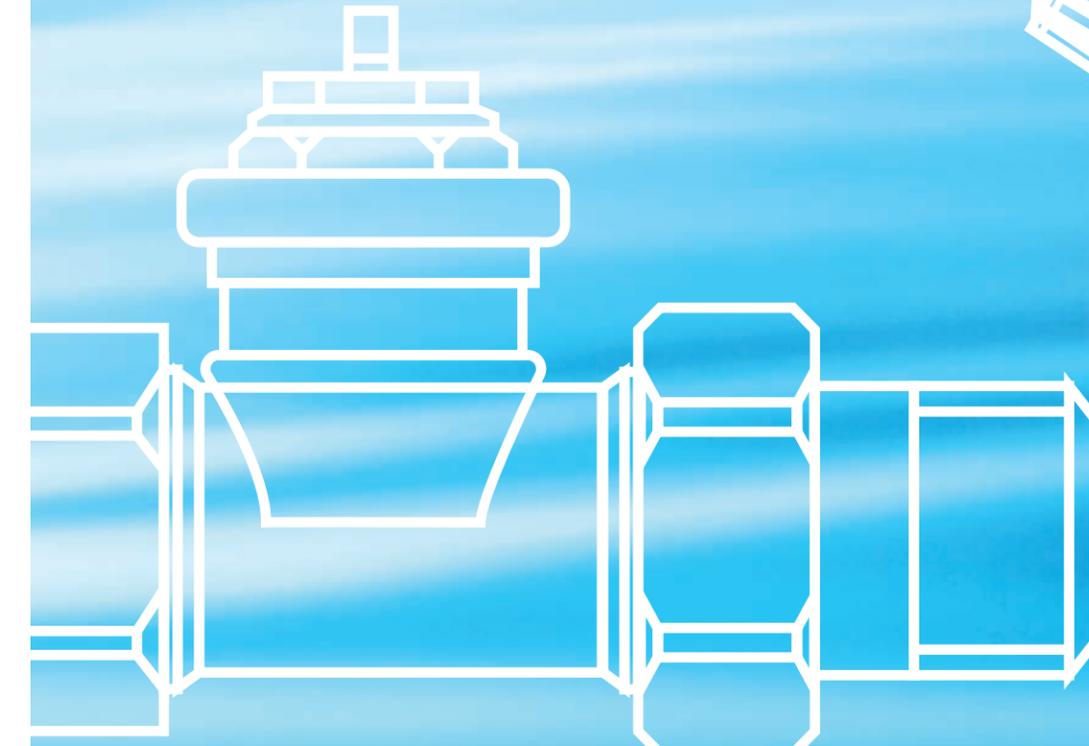
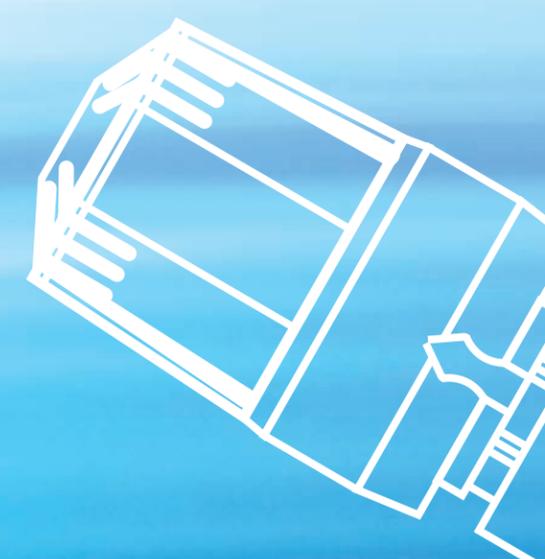
**23RT0102**  
**Electronic Radiator Thermostat**  
Power: 2\*AA\* 1.5V alkaline batteries  
Display accuracy: 0.5°C  
Probe sensor:: NTC(10k)1%  
Working environment temperature: 0-50°C  
Default range of temperature adjustment: 5-35°C  
Range of temperature display: 1-70°C

**23RT0103**  
**Zigbee 3.2 Radiator Thermostat**  
Power: 2\*AA\* 1.5V alkaline batteries  
Display accuracy: 0.5°C  
Probe sensor:: NTC(10k)1%  
Working environment temperature: -10-60°C  
I Default range of temperature adjustment: 5-35°C  
Range of temperature display: 1-70°C

**23RT0104**  
**Zigbee 3.2 Radiator Thermostat**  
Power: 2\*AA\* 1.5V alkaline batteries  
I Display accuracy: 0.5°C  
I Probe sensor: NTC(10k)1%  
I Working environment temperature: 0-50°C  
I Default range of temperature adjustment: 5-35°C  
I Range of temperature display: 1-70°C

**23RT0105**  
**Zigbee 3.2 Radiator Thermostat**  
Power: 2\*AA\* 1.5V alkaline batteries  
Display accuracy: 0.5°C  
Probe sensor: NTC(10k)1%  
Working environment temperature: 0-50°C  
Default range of temperature adjustment: 5-35°C  
Range of temperature display: 1-70°C

## 2 Radiator Valves



# 2

# RADIATOR VALVES



**Thermostatic Radiator Valve**  
 Forged brass body  
 Sand blasting and nickel plated  
 Nominal pressure: max 16 bar  
 Temperature: -10-110°C  
 Threaded ISO228/1  
 100% leakage tested  
 Size: 1/2", 3/4"



23TV0201C 23TV0201W 23TV0201B 23TV0202C 23TV0202W 23TV0202B



23TV0203C 23TV0203W 23TV0203B 23TV0204N 23TV0204C 23TV0204W 23TV0204B



23TV0205N 23TV0205C 23TV0206 23TV0207 23TV0208N 23TV0208C 23TV0208W 23TV0208B



23TV0209N 23TV0209C 23TV0210 23TV0211 23TV0212 23TV0213



23TV0214 23TV0215 23TV0216 23TV0217 23TV0218



23TV0219 23TV0220 23TV0221 23TV0222 23TV0223



23TV0224 23TV0225 23TV0226 23TV0227 23TV0228



23TV0229 23TV0230 23TV0231 23TV0232 23TV0233



23TV0234 23TV0235 23TV0236 23TV0237 23TV0238 23TV0239



23TV0240 23TV0241 23TV0288

**Thermostatic Radiator Valve**  
 Forged brass body  
 Sand blasting and nickel plated  
 Nominal pressure: max 16 bar  
 Temperature: -10-110°C  
 Threaded ISO228/1  
 100% leakage tested  
 Size: 1/2", 3/4"



23TV1001 23TV1002 23TV1003 23TV1004 23TV1005 23TV1006 23TV1007 23TV1008



23TV1009 23TV1010 23TV1011 23TV1012 23TV1013 23TV1014 23TV1015 23TV1016

**Thermostatic Valve Set**  
 packed in blister  
 Size: 1/2"

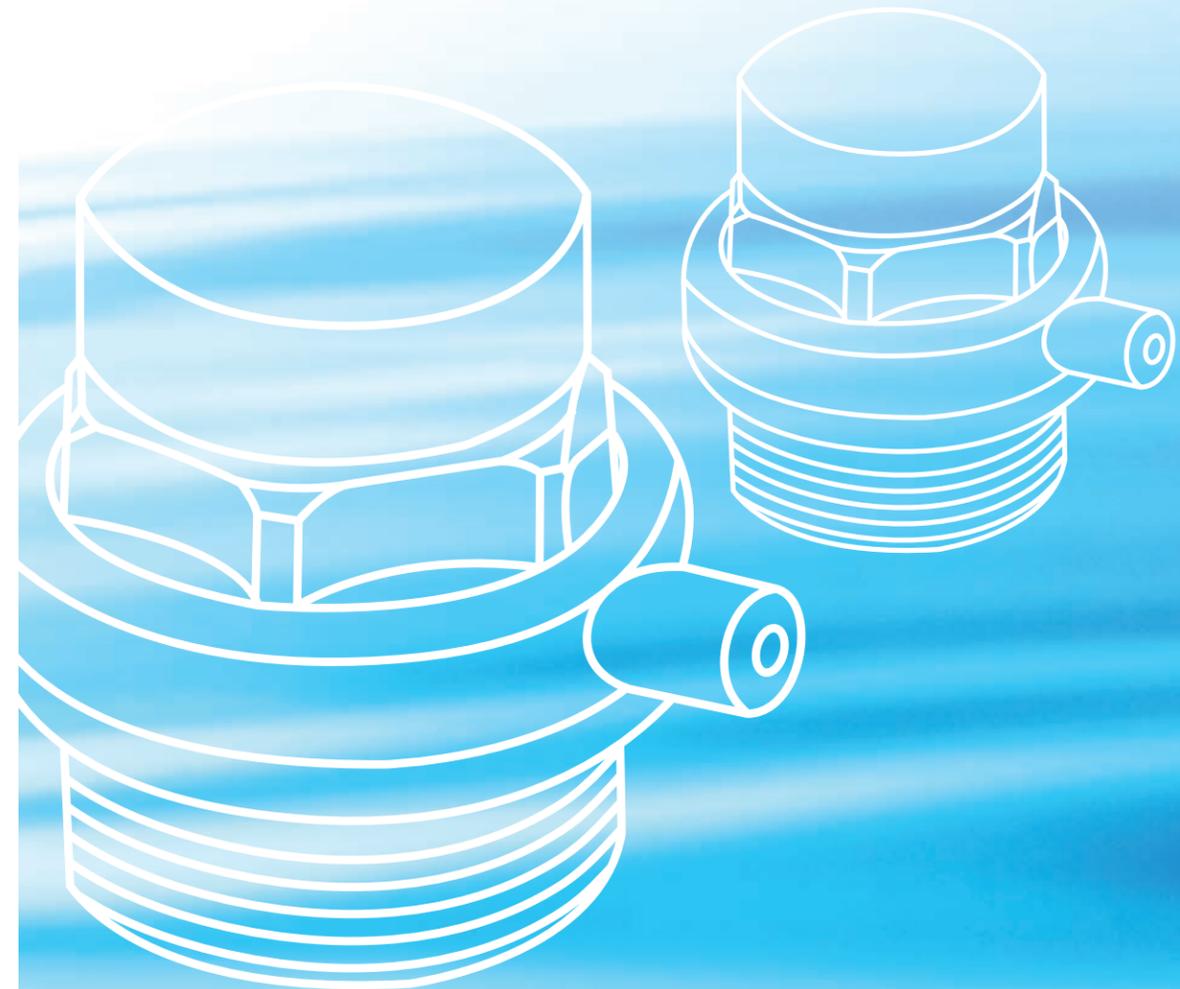




**Radiator Valve**  
 Forged brass body  
 Polished and Chrome Plated  
 Nominal pressure: max16 bar  
 Temperature: -10°C-110°C  
 Threaded ISO228/1  
 100% leakage tested  
 Size: 1/2", 3/4"

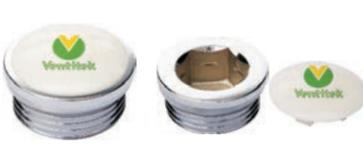


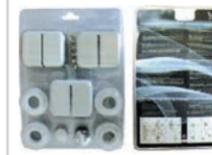
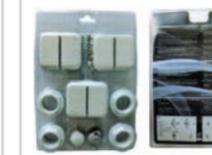
# 3 Radiator Components



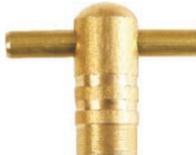
<p><b>23AV1201</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>10AV1202</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>23AV1203</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>10AV0233</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>
<p><b>10AV0232</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>10AV0220</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>10AV0231</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>23AV1205</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>
<p><b>10AV0230</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>10AV0234</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>10AV0235</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>10AV0236</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>
<p><b>10AV0237</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>10AV0238</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>23AV0239Y 23AV0239N</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>10AV0241S 10AV0241Y</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>

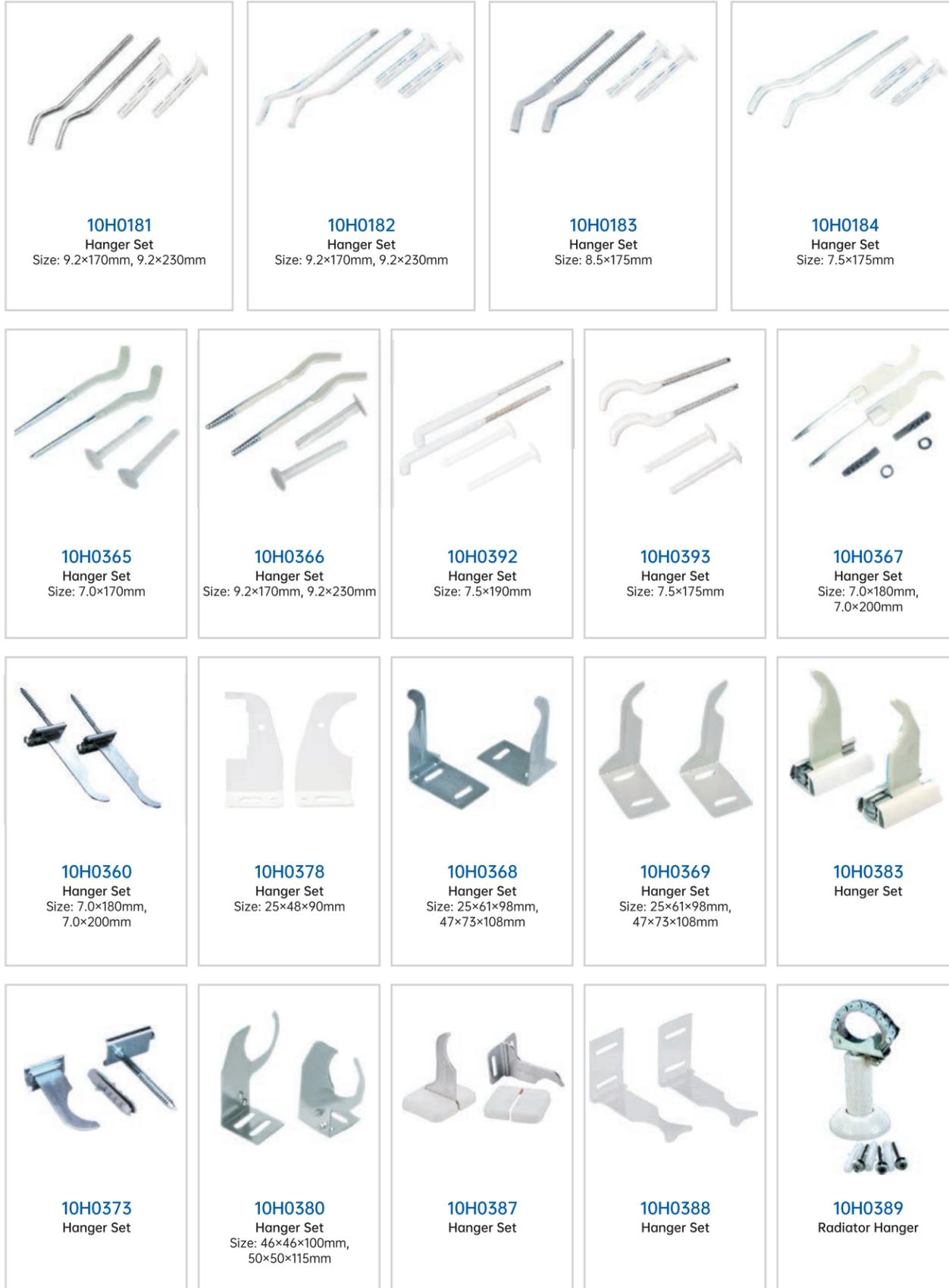
<p><b>10AV0242</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>10AV0244</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>23AV0231</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>23AV0232S 23AV0232Y</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>23AV0233</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>
<p><b>23AV0234</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>23AV0235</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>23AV0236</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>23AV0237</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>23AV0238</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>
<p><b>23AV0240</b> Automatic Air Vent Size: 3/8", 1/2", 3/4", 1"</p>	<p><b>23AV0241</b> Automatic Air Vent (Solar) Size: 1/2"</p>	<p><b>23AV0242</b> Automatic Air Vent (Solar) Size: 1/2"</p>	<p><b>23AV0251</b> Automatic Air Vent Size: 1/8"</p>	
<p><b>23AV0252</b> Automatic Air Vent Size: 1/8", 1/4", 1/2", 3/4"</p>			<p><b>23AV0253</b> Automatic Air Vent Size: 1/8", 1/4", 1/2", 3/4"</p>	
<p><b>23AV0254</b> Automatic Air Vent Size: 1/8"</p>				

 <b>10AV0102</b> Air Vent Size: 1/2"Mx24mm	 <b>10AV0377</b> Air Vent Size: 1/2"Mx24mm	 <b>10AV0378</b> Air Vent Size: 1/2"Mx24mm	 <b>10AV0379</b> Air Vent Size: 1/2"Mx24mm	 <b>10AV0121</b> Air Vent Size: 3/8", 1/2", 3/4"
 <b>10AV0202</b> Air Vent Size: 3/8", 1/2", 3/4"	 <b>10AV0203</b> Air Vent Size: 3/8", 1/2", 3/4"	 <b>10AV0143</b> Air Vent Size: 1/2"Mx24mm	 <b>10AV0101</b> Air Vent Size: 1/2"Mx27mm	 <b>10AV0141</b> Air Vent Size: 1/2"Mx24mm
 <b>23AV0106</b> Air Vent Size: 3/8", 1/2", 3/4"	 <b>23AV0107</b> Air Vent Size: 3/8", 1/2", 3/4"	 <b>23AV0108</b> Air Vent Size: 3/8", 1/2", 3/4"	 <b>23AV0109</b> Air Vent Size: 3/8", 1/2", 3/4"	
 <b>10AV0104</b> Blind Plug Size: 1/2"Mx24mm	 <b>10AV0103</b> Blind Plug Size: 1/2"Mx27mm	 <b>10AV0105</b> Plug Size: 1/2"Mx24mm	 <b>10AV0175</b> Plug Size: 3/4"Mx27mm	 <b>10AV0144</b> Reducing Plug Size: 1/2"Mx3/8"F 3/4"Mx1/2"F
 <b>10AV0360</b> Montage set 14pcs	 <b>10AV0375</b> Montage set 20pcs	 <b>10AV0421</b> Montage set 15pcs	 <b>10AV0902</b> Air Vent Size: 1/2", 3/4", 1"	 <b>10AV0602</b> Air Vent Size: 1/2", 3/4", 1"
 <b>10AV0605</b> Air Vent Size: 1/2", 3/4", 1"	 <b>10AV0802</b> Air Vent Size: 1/2", 3/4", 1"	 <b>10AV0804</b> Air Vent Size: 1/2", 3/4", 1"		

 <b>10AV0302</b> Air Vent Size: 1/2", 3/4", 1"	 <b>10AV0402</b> Air Vent Size: 1/2", 3/4", 1"	 <b>10AV0502</b> Air Vent Size: 1/2", 3/4", 1"	 <b>10AV0404</b> Blind Plug Size: 1/2", 3/4", 1"	 <b>10AV0241</b> Air Vent Size: 1/4"
 <b>10AV0242</b> Air Vent Size: 1/8", 1/4"	 <b>10AV0243</b> Air Vent Size: 1/8", 1/4"	 <b>10AV0245</b> Air Vent Size: 1/8", 1/4", 3/8", 1/2"	 <b>10AV0246</b> Air Vent Size: 2G1/8"	 <b>10AV0247</b> Air Vent Size: 2G1/8"
 <b>10AV0248</b> Air Vent Size: 1/4"	 <b>10AV0249</b> Air Vent Size: 3/8", 1/2", 3/4"	 <b>10AV0250</b> Air Vent Size: 3/8", 1/2", 3/4"	 <b>10PS0118</b> Plug Set 7 Pcs Size: 3/8"x1", 1/2"x1", 3/4"x1"	 <b>10PS0138</b> Plug Set 7 Pcs
 <b>10PS0130</b> Plug Set 7 Pcs Size: 3/8"	 <b>10PS0120</b> Plug Set 27 Pcs	 <b>10PS0140</b> Plug Set 11 Pcs	 <b>10PS0150</b> Plug Set 13 Pcs	 <b>10PS0160</b> Plug Set 15 Pcs
 <b>10PS0137</b> Plug Set 11 Pcs	 <b>10PS0122</b> Plug Set Size: 1/2"x45mm	 <b>10PS0123</b> Plug Set Size: 3/4"x45mm	 <b>10PS0136</b> Plug Set 8 Pcs Size: 3/8"x1", 1/2"x1", 3/4"x1"	 <b>10PS0139</b> Plug Set Size: 3/8"x1", 1/2"x1", 3/4"x1"
 <b>10PS0141</b> Plug Set Size: 1/2", 3/4", 1"				

 <b>10S0400</b> Steel Symmetrical Screw Size: G1"×25mm (ISO228)	 <b>10S0403</b> Steel Symmetrical Screw Size: G1 1/4"×28mm (ISO228)	 <b>10S0406</b> Steel Symmetrical Screw Size: G1"×32mm (ISO228)	 <b>10S0488</b> O Ring Size: 1"	 <b>10P0188</b> O Ring Size: 1/2", 3/4", 1"
 <b>10S0407</b> Steel Symmetrical Screw Size: G1 1/2"×28mm (ISO228)	 <b>10S0405</b> Steel Symmetrical Screw Size: G1"×32mm (ISO228)	 <b>10S0162</b> Steel Symmetrical Screw Size: 1"×25mm	 <b>10F0387</b> Steel Tee Size: 15×1/2"F×15	 <b>10F0388</b> Steel Elbow Size: 1/2"F×15
 <b>10F0480</b> Brass Screw Size: 3/8", 1/2", 3/4", 1"	 <b>10F0481</b> Brass Screw Size: 3/8", 1/2", 3/4", 1"	 <b>10F0482</b> Brass Screw Size: 3/8", 1/2", 3/4", 1"	 <b>10F0110</b> Steel Tee Size: 15×1/2"F×15	 <b>10F0423</b> Steel Tee Size: 37.5×52×36, 37.5×52×24
 <b>10F0483</b> Brass Screw Size: 3/8", 1/2", 3/4", 1"	 <b>10F0484</b> Brass Screw Size: 3/8", 1/2", 3/4", 1"	 <b>10F0485</b> Brass Screw Size: 3/8", 1/2", 3/4", 1"	 <b>10F0111</b> Steel coupling Size: 15mm×15mm	 <b>10F0418</b> Steel washer

 <b>10P0131</b> Blind Plug Size: 1"M×28mm, 1"M×32mm DIA.: 41mm	 <b>10P0136</b> Reducing Plug Size: 1"M×1"F	 <b>10P0132</b> Reducing Plug Size: 1"M×3/4"F×32mm DIA.: 41mm	 <b>10P0107</b> Reducing Plug Size: 1"M×1/2"F×28mm×DIA. 41mm 1"M×1/2"F×32mm×DIA. 41mm 1"M×3/4"F×32mm×DIA. 41mm 1"M×1/2"F×32mm×DIA. 46mm 1"M×3/4"F×32mm×DIA. 46mm	 <b>10P0108</b> Reducing Plug Size: 1"M×3/4"F×32mm DIA.: 41mm
 <b>10P0109</b> Blind Plug Size: 1"M×32mm DIA.: 41mm	 <b>10F0231</b> Steel Screw Size: 3/8", 1/2", 3/4", 1"	 <b>10F0451</b> Steel Screw Size: 3/8", 1/2", 3/4", 1"	 <b>10F0235</b> Steel Screw Size: 3/8", 1/2", 3/4", 1"	 <b>10F0237</b> D Type Steel Screw Size: 3/8", 1/2", 3/4", 1"
 <b>10A0151</b> Plastic Key Size: 5mm×5mm	 <b>10A0152</b> Zinc Key Size: 5mm×5mm	 <b>10A0153</b> Aluminium Key Size: 5mm×5mm	 <b>10A0154</b> Zinc Key Size: 5mm×5mm	 <b>10A0155</b> Brass Key Size: 5mm×5mm
 <b>10A0156</b> Steel Key Size: 7.5mm, 17mm	 <b>10A0157</b> Spanner	 <b>10H0171</b> Plastic Hanger Size: 25mm, 22mm	 <b>10H0176</b> Round Kit 22 pcs Size: 22mm	 <b>10H0177</b> Oval Kit 22 pcs Size: 25mm



# 4 Pressure Controlling Valves



# 4

## PRESSURE CONTROLLING VALVES



#### Specifications

Safety relief valves are typically used for controlling pressure on boilers in heating systems, on stored hot water cylinders in hot water systems and in water systems generally. When the calibrated pressure is reached, the valve opens and, by means of discharger to atmosphere, prevents the pressure of the system from reaching levels which would be dangerous for the boiler and the components in the system itself.

#### Materials: Brass

Spring: Stainless Steel 304

#### Technical Data:

1. Temperature Range: 5-110°C
2. Pressure Range: 1-10bar
3. Medium: water, air
4. Thread: DN15 & DN20

### Temperature and Pressure Relief Valve

#### Description

P/T Valve for solar water heater, electric heater and so on. The T&P valve is designed to relieve the increase in pressure which develops during the normal heating cycle. 1. Provide safe to us 2. Prolong the lifetime of the solar water heater

#### Materials

Body: Brass  
Internal Parts: Brass and stainless steel  
Seat Disc: Rubber  
Blowout Cage: Nylon

#### Technical Data:

1. Surface Treatment: Brass/Nickel Plated
2. Preset Pressure: 6bar
3. Max Operating Temperature : 110°C



**PRESSURE REDUCING VALVES**



**PRESSURE REDUCING / BALANCING VALVES**

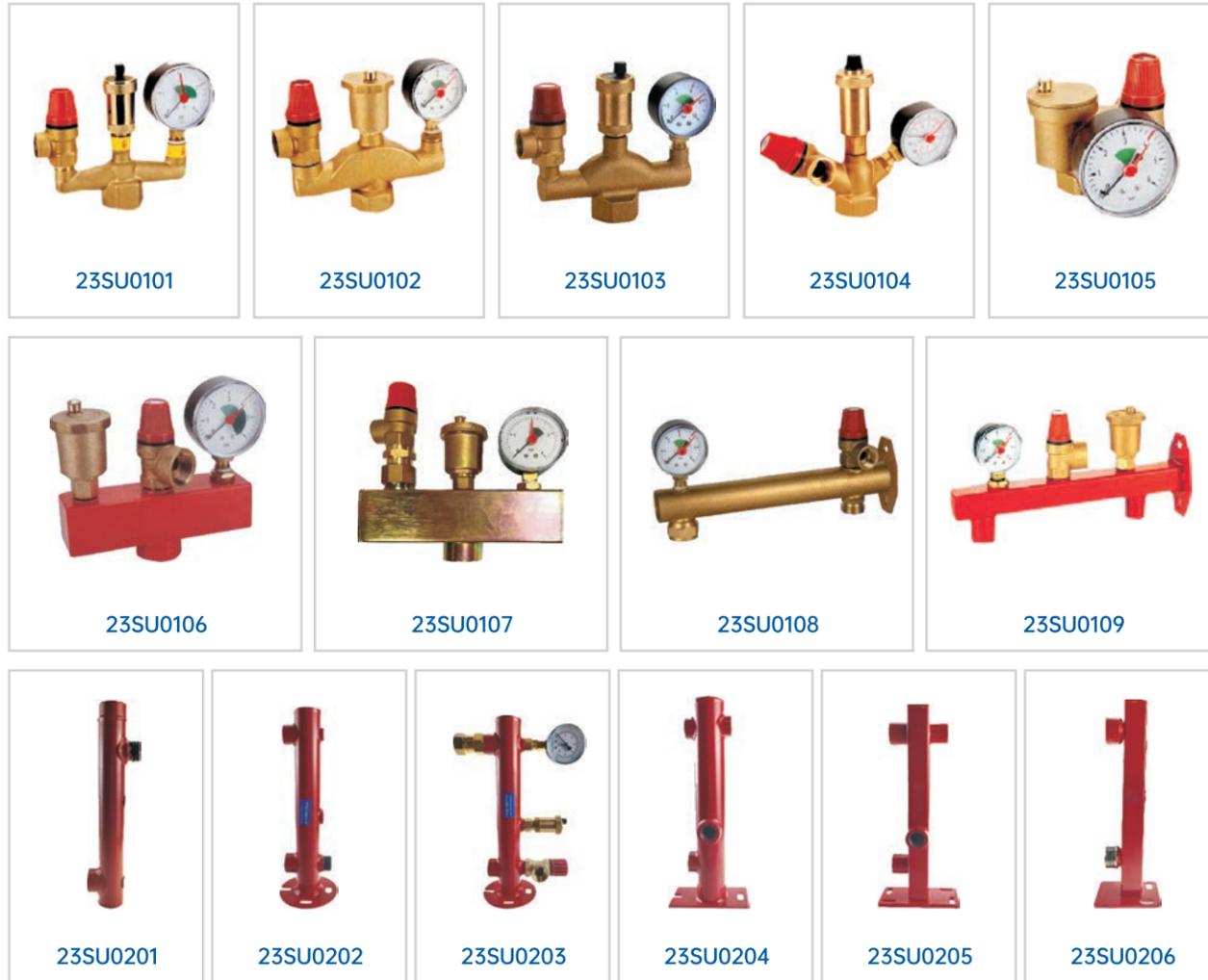


**Pressure Reducing Valve**  
 Forged brass body  
 Sand blasting and nickel plated  
 Temperature: 0-100°C  
 Maximum inlet pressure: 25bar  
 Outlet pressure can be adjusted between: 1bar to 6bar  
 Factory pre-adjustment: 3bar  
 Threaded ISO228/1  
 100% leakage tested  
 Size: 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 3"

 <b>23TM0101</b> Size: 1", 5/4"	 <b>23TM0102</b> Size: 1", 5/4"	 <b>23TM0103</b> Size: 1", 5/4"	 <b>23TM0104</b> Size: 1/2", 3/4", 1" a b c	
 <b>23TM0105</b> Size: 3/4", 1"	 <b>23TM0106</b> Size: 1/2", 3/4", 1", 5/4"	 <b>23TM0107</b> Size: 1", 5/4"	 <b>23TM0108</b> Size: 1", 5/4"	 <b>23TM0109</b>
 <b>23TM0110</b>	 <b>23TM0111</b>	 <b>23TM0112</b>	 <b>23TM0113</b>	 <b>23TM0114</b>
 <b>23TM0115</b>	 <b>23TM0116</b>	 <b>23TM0117</b>	 <b>23TM0118</b>	 <b>23TM0119</b>
 <b>23TM0120</b>	 <b>23TM0121</b>	 <b>23TM0122</b>	<p><b>Technical data:</b>  <b>Thermostatic Mixing Valve</b>            Max static pressure: 10bar            Dynamic working pressure: 1-5bar            Maximum working Temp: Below 99°C            Cold water Temp. range: 1-29°C            Hot water Temp. range: 50-95°C            Outlet Temp. range: 35-60°C            Adjustment Accuracy: ±2°C</p>	

 <b>23TM0123</b>	 <b>23TM0124</b>	 <b>23TM0125</b>	 <b>23TM0126</b>	 <b>23TM0127</b>		
 <b>23TM0128</b>	 <b>23TM0129</b>	 <b>23TM0130</b>	 <b>23TM0131</b>	 <b>23TM0132</b>		
 <b>23TM0133</b>	 <b>23TM0134</b>	 <b>23TM0135</b>	<p><b>Pre-filter with Pressure relief</b></p>  <b>23FP0101</b> Size: 1/2", 3/4"		 <b>23FP0102</b> Size: 1/2", 3/4"	
 <b>23TM0136</b>		 <b>23TM0137</b>				
 <b>23PC0101</b> Thermostat regulator for boiler Size: 3/4"	 <b>23PC0102</b> Temperature safety valve for solid fuel boilers Size: 3/4"	 <b>23PC0103</b> Thermostat recooling two-way valve Size: 3/4"				
<p><b>VERNET</b></p>  a					 b	 c
<p>Thermostatic Mixing Valve Core</p>						

**Safety Unit for Heating System**



**Water Pre Filter**



**Auto Filling Valve**



**Auto Filling Valve**  
Appliance Features  
Auto filling valve for heating systems, with filter, nonreturn system and stopcock, M.F.  
Technical Features:  
Max inlet working: 10bar  
Setting: min0.5bar max4bar  
Max temperature: 40-80°C  
Preset: 1.5bar  
Threading for waterworks: ISO 228/1  
Manometer connection: ISO 7/1

**Technical data:**  
Max.inlet pressure: 12bar  
Setting range: 0,2-4bar  
Factory setting: 3bar  
Indicator accuracy: ±0,15 bar  
Max. working temperature: 65°C  
Pressure gauge range: 0-6bar  
Medium: water

**Description:**  
Water Flow meter offers a quick, easy and accurate method of adjusting the flow rates. Can be installed in any position

Max. input working pressure: 10 bar  
Max. water temperature: 115°C  
Material: Brass or Brass with chromate treatment  
Floating ball: Ethylene-propylene

**Material:**  
brass CW617N

**Technical data:**  
Medium: water, glycol solutions  
Max. percentage of glycol: 50%  
Max. working pressure: 10bar  
Working temperature range: -10—110°C  
Flow rate range unit of measurement: l/min  
Accuracy: ±10%  
Control stem angle of rotation: 90°

**Operating wrench:**  
1/2"-1 1/4":9mm  
1 1/2" and 2":12mm

**Flowmeter Valve**



**Balancing Valve with Flowmeter**





### What is Water Hammer?

The noise from banging pipes is caused by shocks of highspeed water flowing in the piping system when a fixture is suddenly closed. Sudden stoppage of the water (a non-compressible liquid) flowing at a given pressure and velocity causes a surge or spike of water and is called water hammer. When this occurs, a pressure wave travels back through the piping until it finds a point of relief.

Dishwashers, clothes washers, fast closing positive shut off valves incorporated in the plumbing system all contribute to creating water hammer which is not only annoying but damaging to pipes and appliances. Series 05 water hammer arrestors provide economical and effective single fixture protection from the destructive and annoying problem of water pressure shock. Utilizing piston style construction, factory charged and sealed, the Series 05 provides automatic, repetitive control of water hammer when properly installed.

### Pressure-Temperature

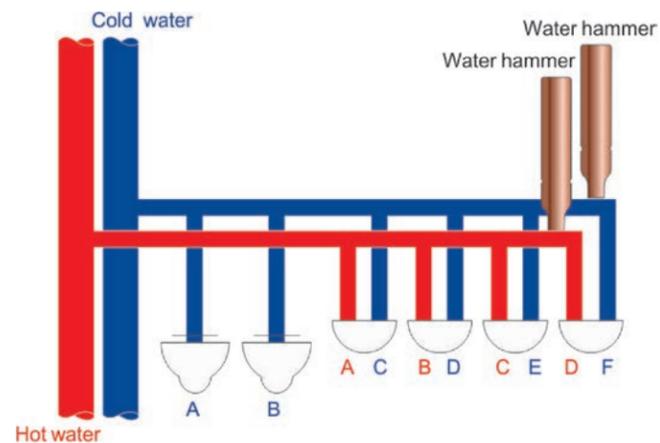
#### Operating Pressure

Designed especially for use in light commercial or residential applications on lines up to 150psi (10.6bar) working pressure.

#### Temperature Range

33F to 180F (0.5°C- 82°C)

Air Preload  
60psi (4.2bar)



### Electric Valve



### Dirt Separators In Composite with Magnet



### Tankless Isolation Valve Kit





**23CP0101**

Circulation Pump Series  
Power:245/220/145w  
Max. Flow:68/46/28L/min  
Max. Head: 12/11/7m  
Inlet/outlet: 1 1/2"  
Nw: 4.5kg



**23CP0102**

Circulation Pump Series  
Power:270/210/150w  
Max. Flow:72/54/32L/min  
Max. Head: 15/13/10m  
Inlet/outlet: 1 1/2"  
Nw: 5.0kg



**23CP0103**

Circulation Pump Series  
Power:93/67/46w  
Max. Flow:55/43/32L/min  
Max. Head: 6/5/3m  
Inlet/outlet: 1 1/2"  
Nw: 3.0kg



**23CP0113**

Circulation Pump Series  
Power:93/67/46w  
Max. Flow:55/43/32L/min  
Max. Head: 6/5/3m  
Inlet/outlet: 2"  
Nw: 3.0kg



**23CP0115**

Circulation Pump Series  
Power:270/210/150w  
Max. Flow:160/103/43L/min  
Max. Head: 8/7/3m  
Inlet/outlet: 2"  
Nw: 5.0kg



**23CP0116**  
Shielding Circulation Pump  
Size: 1", 1 1/2"



**23CP0117**  
Variable Frequency  
Shielding Circulation Pump  
Size: 1", 1 1/2"



**23RP001**



**23RP002**

Rotor for Pump  
Size: 12/5, 12/6



**23CP0105**

Circulation Pump Series  
Power:72/53/38w  
Max. Flow:42/34/23L/min  
Max. Head: 4.5/4/3m  
Inlet/outlet: 1"  
Nw: 2.4kg



**23CP0106**

Circulation Pump Series  
Power:93/67/46w  
Max. Flow:48/40/28L/min  
Max. Head: 6/5/3m  
Inlet/outlet: 1"  
Nw: 2.6kg



**23CP0107**

Circulation Pump Series  
Power:72/53/38w  
Max. Flow:48/36/25L/min  
Max. Head: 4.5/4/3m  
Inlet/outlet: 1 1/2"  
Nw: 2.5kg



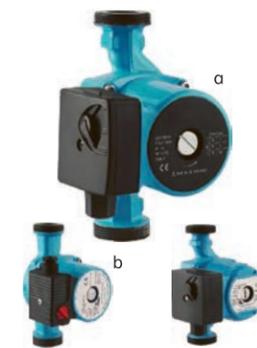
**23CP0108**

Circulation Pump Series  
Power:93/67/46w  
Max. Flow:55/43/32L/min  
Max. Head: 6/5/3m  
Inlet/outlet: 1 1/2"  
Nw: 2.7kg



**23CP0109**

Circulation Pump Series  
Power:72/53/38w  
Max. Flow:48/36/25L/min  
Max. Head: 4.5/4/3m  
Inlet/outlet: 1 1/2"  
Nw: 2.5kg



**23CP0110**

Circulation Pump Series  
Power:72/53/38w  
Max. Flow:55/43/32L/min  
Max. Head: 4.5/4/3m  
Inlet/outlet: 1 1/2"  
Nw: 2.9kg



**23CP0111**

Circulation Pump Series  
Power:270/210/150w  
Max. Flow:160/103/43L/min  
Max. Head: 8/7/3m  
Inlet/outlet: 1 1/2"  
Nw: 5.0kg



**23CP0112**

Circulation Pump Series  
Power:72/53/38w  
Max. Flow:48/36/16L/min  
Max. Head: 4.5/4/3m  
Inlet/outlet: 2"  
Nw: 2.8kg

