Technical data sheet

Manifolds

CD 478M - CD 473M



14/04/2021



Function

Pre-assembled distribution manifolds with installation accessories group together in one single item a number of elements which are usually needed for a standard installation.

The distribution manifold is available in various sizes, with as many outlets as required by installer. Pre-assembled distribution manifolds with installation accessories consist of:

- Pre-assembled return manifold with valves set for thermoelectric adjustment and manual control knob;
- Pre-assembled delivery manifold with regulators/flow meters;
- Ball valve with blue/red handle and thermometer on the pipe union;
- Manifold terminals with automatic air vent valves and water load/drain taps.

Technical data

Maximum working pressure: 10 bar

Maximum working temperature: 70 °C

Maximum differential pressure: 1 bar

Thermometer range: $0 \div 80$ °C

Flow meters regulation range: $0 \div 5$ l/min

Flow meters regulation precision: $\pm 10\%$

Working fluids: water in compliance with UNI 8065:2019

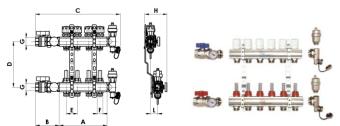
Manifolds	
Manifold:	CW 617 N – DW UNI-EN 12165:2016
Screw:	CW 614 N – DW UNI-EN 12164:2016
Gaskets:	Peroxide cured EPDM
Flow meters	
Flow meter:	Thermo resistant plastic material
Flow meter body:	CW 614 N – DW UNI-EN 12164:2016
Spring:	Stainless steel
Gaskets:	Peroxide cured EPDM
Ball valves	
Valve body:	CW 617 N – DW UNI-EN 12165:2016
Ball:	CW 617 N – DW UNI-EN 12165:2016
Housing:	PTFE
Gaskets:	NBR
Handle:	Red or blue die-cast aluminium
Thermometer:	
Case and stem:	Galvanized steel
Covering:	Transparent plastic material
Thermometric element:	Bimetallic spring
Automatic air vent valves	
Valve body:	CW 617 N – DW UNI-EN 12165:2016
Float:	PP
Gaskets:	NBR
Spring:	Stainless steel
Water load/drain taps:	
Terminal body:	CW 617 N – DW UNI-EN 12165:2016
Valve body:	CW 617 N – DW UNI-EN 12165:2016
Gaskets:	Peroxide cured EPDM
Brackets	
Brackets:	Galvanized steel
Clamps:	Stainless steel
Gaskets:	NBR
Finish	
Nickel plating	

Materials:

Dimensional Drawings

CD 478M

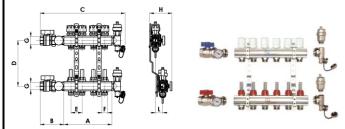
Pre-assembled manifold with built-in valves, flow meters and installation accessories. Connection type W24x19



CD 473M

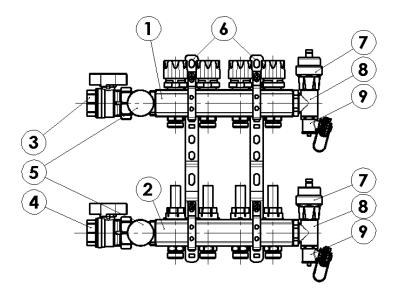
Pre-assembled manifold with built-in valves, flow meters and installation accessories.

Connection type Eurokonus



Code	Size	Α	В	С	D	E	Code	Size	Α	В	С	D	Ε
15652402MN	G1"xW24x19	112	106	278	200	50	15652702MN	G1"xG3/4Ek	112	106	278	200	50
15652403MN	G1"xW24x19	162	106	328	200	50	15652703MN	G1"xG3/4Ek	162	106	328	200	50
15652404MN	G1"xW24x19	212	106	378	200	50	15652704MN	G1"xG3/4Ek	212	106	378	200	50
15652405MN	G1"xW24x19	262	106	428	200	50	15652705MN	G1"xG3/4Ek	262	106	428	200	50
15652406MN	G1"xW24x19	312	106	478	200	50	15652706MN	G1"xG3/4Ek	312	106	478	200	50
15652407MN	G1"xW24x19	362	106	528	200	50	15652707MN	G1"xG3/4Ek	362	106	528	200	50
15652408MN	G1"xW24x19	412	106	578	200	50	15652708MN	G1"xG3/4Ek	412	106	578	200	50
15652409MN	G1"xW24x19	462	106	628	200	50	15652709MN	G1"xG3/4Ek	462	106	628	200	50
15652410MN	G1"xW24x19	512	106	678	200	50	15652710MN	G1"xG3/4Ek	512	106	678	200	50
15652411MN	G1"xW24x19	562	106	728	200	50	15652711MN	G1"xG3/4Ek	562	106	728	200	50
15652412MN	G1"xW24x19	612	106	778	200	50	15652712MN	G1"xG3/4Ek	612	106	778	200	50
15652413MN	G1"xW24x19	662	106	828	200	50	15652713MN	G1"xG3/4Ek	662	106	828	200	50
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Code	Size	F	G	Н	L	М	Code	Size	F	G	Н	L	M
15652402MN	G1"xW24x19	W24x19	G1"	90	32	-	15652702MN	G1"xG3/4Ek	G3/4Ek	G1"	90	32	-
15652403MN	G1"xW24x19	W24x19	G1"	90	32	-	15652703MN	G1"xG3/4Ek	G3/4Ek	G1"	90	32	-
15652404MN	G1"xW24x19	W24x19	G1"	90	32	-	15652704MN	G1"xG3/4Ek	G3/4Ek	G1"	90	32	-
15652405MN	G1"xW24x19	W24x19	G1"	90	32	-	15652705MN	G1"xG3/4Ek	G3/4Ek	G1"	90	32	-
15652406MN	G1"xW24x19	W24x19	G1"	90	32	-	15652706MN	G1"xG3/4Ek	G3/4Ek	G1"	90	32	-
15652407MN	G1"xW24x19	W24x19	G1"	90	32	-	15652707MN	G1"xG3/4Ek	G3/4Ek	G1"	90	32	-
15652408MN	G1"xW24x19	W24x19	G1"	90	32	-	15652708MN	G1"xG3/4Ek	G3/4Ek	G1"	90	32	-
15652409MN	G1"xW24x19	W24x19	G1"	90	32	-	15652709MN	G1"xG3/4Ek	G3/4Ek	G1"	90	32	-
15652410MN	G1"xW24x19	W24x19	G1"	90	32	-	15652710MN	G1"xG3/4Ek	G3/4Ek	G1"	90	32	-
15652411MN	G1"xW24x19	W24x19	G1"	90	32	-	15652711MN	G1"xG3/4Ek	G3/4Ek	G1"	90	32	-
15652412MN	G1"xW24x19	W24x19	G1"	90	32	-	15652712MN	G1"xG3/4Ek	G3/4Ek	G1"	90	32	-
15652413MN	G1"xW24x19	W24x19	G1"	90	32	-	15652713MN	G1"xG3/4Ek	G3/4Ek	G1"	90	32	-

Construction



- 1. Return manifold

 2. Delivery manifold

 3. Blue return ball valve

 4. Red delivery ball valve

 5. Thermometer

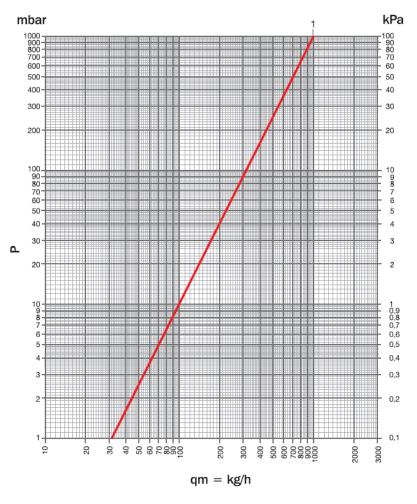
 6. Brackets

 7. Automatic air vent valve
 - 9. Water load/drain tap

Adjustable terminal

8.

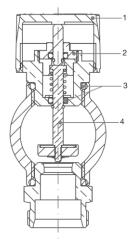
Flow rate chart



Pos.	Kvs	Item
1	0.99	CD 478M; CD 473M (for single outlet)
Max suggested flow rate:		1350 l/h (on the manifold)

Operating instructions

Thermostatic screw



10. ABS plug or manual knob11. Sealing assembly item 51612. Gasket

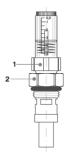
13. Obturator

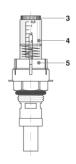
In case of water leakage from the screw stem, the sealing assembly can be tightened until the flow comes to a full stop. Should the leakage continue, the whole sealing assembly can be replaced by following the instructions below while the group is operating.



- Remove the protection cap, the knob, the thermostatic head or the thermoelectric head:
- Unscrew the sealing assembly with a 9mm key blocking the screw body with a 19mm key;
- · Replace the sealing assembly with the spare part screwing it in with a 9mm key;
- Replace the protection cap, the knob, the thermostatic head or the thermoelectric head.

Regulator / Flow meter





Adjusting collar
 Fixing collar
 Glass collar
 Glass

Block cap

The glass and the measuring spring can be disassembled for maintenance and cleaned while the system is operating:

- Close the flow meter and the corresponding valve placed on the return manifold.
- Unscrew the glass applying strength on its collar and take it out.
- During this operation, a negligible water leakage will appear.
- If necessary, the glass can now be easily cleaned.
- To reassemble, follow the above instructions in reverse.

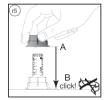


The theoretical flow rate of a hydraulic circuit, assigned by a technician, is given by the adjustment carried out through the regulators/flow meters placed on the delivery manifold. The adjustment must be carried out with the valve on the return circuit fully open. Since the flow rates of each heating ring affect each other, each single heating ring has to be adjusted until the values in litres/minute laid down in the project are satisfactorily reached.

To adjust the flow:

· Remove the red fixing collar.





• Place the flow meter on close position.

(a1) = Act on the flow meter manually without using instruments.

• Open the flow meter until the desired flow rate is displayed.

· Replace the fixing collar.

How to prevent tampering with the hydraulic balancing:

 The regulation of the flow meter can be blocked through a blocking cap, If necessary these caps can be sealed with iron wire and lead seal

Item specifications

CD 478M

2-way (from 2- to 13-way) pre-assembled distribution manifold for radiant panel systems. Brass body in CW614N. The sealing elements are in peroxide cured EPDM. Head connection 1" female threaded, interaxis 200mm. Male connections W24x19, interaxis 50mm. Liquids: water and water-glycol solutions; max glycol quantity 30%. Max working pressure 10bar. Max liquid temperature 70°C.

Components:

- Delivery manifold complete with flow regulation valves and flow-meter with graduated scale 0÷5l/min. Precision ±10%. The glass can be removed for cleaning also when the system is working.
- Return manifold complete with check valves set for electro-thermic adjustment and manual control knob.
- Couple of terminal groups complete with automatic air vent valve, water load/drain taps, supplied in package.
- Couple of full-flow ball valves complete with pipe unions with thermometer range 0÷ 80 °C, supplied in package.
- Couple of fixing brackets with shaped rubber.

CD 473M

2-way (from 2- to 13-way) pre-assembled distribution manifold for radiant panel systems. Brass body CW614. The sealing elements are in peroxide cured EPDM. Head connection 1" female threaded, interaxis 200mm. Male connections G3/4 Eurokonus, interaxis 50mm. Liquids: water and water-glycol solutions; max glycol quantity 30%. Max working pressure 10bar. Max liquid temperature 70°C.

Components:

- Delivery manifold complete with flow regulation valves and flow-meter with graduated scale 0÷5l/min. Precision ±10%.
 The glass can be removed for cleaning also when the system is working.
- Return manifold complete with check valves set for electro-thermic adjustment and manual control knob.
- Couple of terminal groups complete with automatic air vent valve, water load/drain taps, supplied in package.
- Couple of full-flow ball valves complete with pipe unions with thermometer range 0÷80 °C, supplied in package.
- Couple of fixing brackets with shaped rubber.



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