Technical data sheet

Manifolds

CD 4100

06/09/2024

Function

Distribution manifolds are from drawn brass bar CW617N with a special profile which undergoes a stress relieving heat treatment.
The manifolds are tooled and assembled internally by the use of automated machineries and are 100 % tested when complete with their accessories to guarantee their absolute tightness.
The threads of the main connections are in compliance with ISO228.
The secondary circuits are connected through fittings assembled, tightened with o-ring sealings and glued to the manifold in order not to unscrew should the compression fitting be dismounted. All fittings and accessories for manifolds are provided with soft o-ring sealing and do not require any intermediate sealing element.
It is recommended to tighten the fittings to a maximum torque of 60 Nm.
The manifolds are produced with nickel plated finish and the side interaxes are 50mm.

The distribution manifold is available in various sizes, with a varying number of outlets. Pre-assembled distribution manifolds with installation accessories consist of:

- 1 return manifold with built-in valves set for thermoelectric adjustment and protection cap;
- 1 delivery manifold with built-in lockshields fit for double regulation.

Technical data

Maximum working pressure:	10 bar
Maximum working temperature:	120 °C
Maximum differential pressure:	1 bar
Working fluids:	water in compliance with UNI 8065:2019

Technical data with thermoelectric heads

Liquid temperature:	0 °C ÷ 100 °C
Room working temperature:	0 °C ÷ 60 °C
Max relative humidity (without condensation):	80%

Materials

Manifolds

Manifold:	CW 617 N – DW UNI-EN 12165:2016
Housing:	CW 617 N – DW UNI-EN 12165:2016
Gaskets:	Peroxide cured EPDM
Thermostatic screw	
Screw:	CW 614 N – DW UNI-EN 12164:2016
Stem:	Stainless steel
Gaskets:	Peroxide cured EPDM
Stuffing gasket:	Teflon
Knob:	RAL9016 white ABS

Lockshield

Lockshield:	CW 614 N – DW UNI-EN 12164:2016
Gaskets:	Peroxide cured EPDM
Knob:	RAL9016 white ABS
Flat gasket:	Fasit

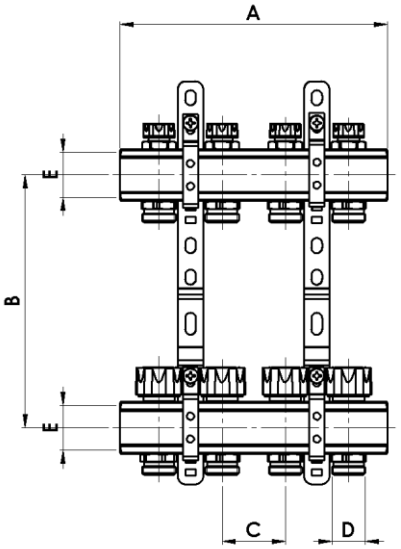
Finish

Nickel plated finish

Dimensional drawing

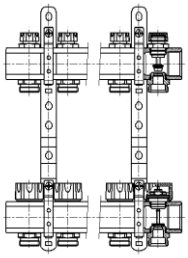
CD 4100

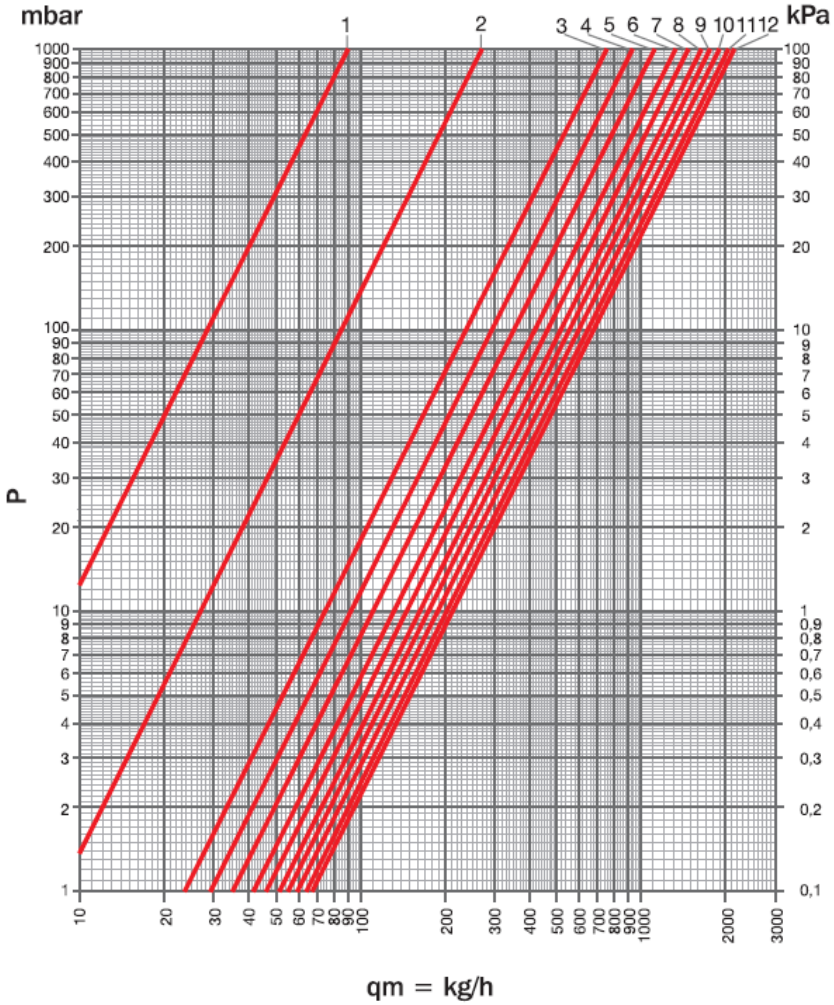
Pre-assembled manifold with built-in valves and lockshields.
Connections type Eurokonus



Code	Size	A	B	C	D	E	F	G	H	L	M	N	P
17410002N	G1”xG3/4Ek	112	200	50	G3/4Ek	G1”	30	80	-	-	-	-	-
17410003N	G1”xG3/4Ek	162	200	50	G3/4Ek	G1”	30	80	-	-	-	-	-
17410004N	G1”xG3/4Ek	212	200	50	G3/4Ek	G1”	30	80	-	-	-	-	-
17410005N	G1”xG3/4Ek	262	200	50	G3/4Ek	G1”	30	80	-	-	-	-	-
17410006N	G1”xG3/4Ek	312	200	50	G3/4Ek	G1”	30	80	-	-	-	-	-
17410007N	G1”xG3/4Ek	362	200	50	G3/4Ek	G1”	30	80	-	-	-	-	-
17410008N	G1”xG3/4Ek	412	200	50	G3/4Ek	G1”	30	80	-	-	-	-	-
17410009N	G1”xG3/4Ek	462	200	50	G3/4Ek	G1”	30	80	-	-	-	-	-
17410010N	G1”xG3/4Ek	512	200	50	G3/4Ek	G1”	30	80	-	-	-	-	-

Flow rate chart for distribution manifolds with built-in lockshields



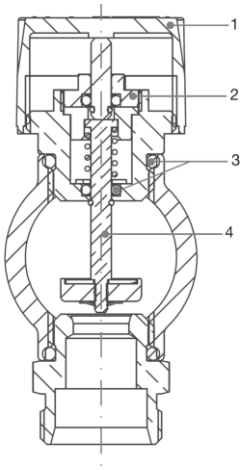


Pos.	Turns No.	Kv	Item
1	1/2	0.09	CD 4100
2	1	0.27	
3	1+1/2	0.75	
4	2	0.93	
5	2+1/2	1.11	
6	3	1.31	
7	3+1/2	1.48	
8	4	1.62	
9	4+1/2	1.76	
10	5	1.90	
11	5+1/2	2.02	
12	All open	2.12	

Max suggested flow rate:	G 1”	2350 l/h

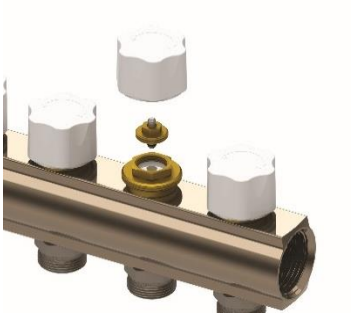
Operating instructions

Thermostatic screw



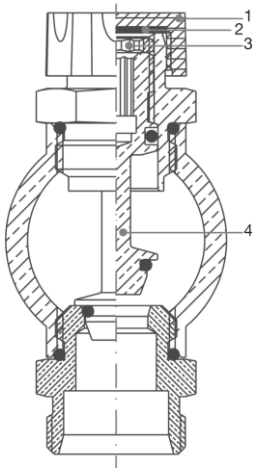
1. ABS plug or manual knob
2. Sealing assembly item 516
3. Gasket
4. Obturator

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 manual 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 manual knob, the thermostatic head or the thermoelectric head.

Lockshield



1. ABS plug
2. Gasket
3. Adjusting collar 3346656
4. Obturator

Adjustment instructions for manifolds with lockshields:

- Unscrew the plug (1);
- Screw the obturator (4) with a hex key until it reaches the closed position;
- The lockshield is ready to be set. The relation between the Kv values, the position of the obturator and the corresponding curve, are described in the differential pressure diagram. This means that by unscrewing the obturator for a certain number of turns, it is possible to obtain the required Kv value.
- Using the collar (3) code 3346656 (supplied separately) it is possible to create a mechanical stop of the obturator. Once the required flow rate has been set through the obturator, the regulating collar must be screwed to the obturator. It is now possible to open and close the obturator without losing the position of the previously set regulation.

Warnings
Do only use manifolds with accessories with soft o-ring sealing. All fittings and accessories for manifolds (such as drain valves, terminals, plugs, etc.) are provided with this kind of sealing and do not require the use of any intermediate sealing element (PTFE, hemp, etc.), which could result in cracks.

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