# Manifolds

# CX 4004





## 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 can be produced in several 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 protection cap;
- Pre-assembled delivery manifold with regulators/flow meters;
- Manual air vent valves, water load/drain taps and enc cap.

The manifolds are assembled internally by the use of automated machineries and are 100 % tested when complete with their accessories to guarantee their absolute tightness.

It is recommended to tighten the fittings to a maximum torque of 60 Nm.

## **Technical data**

6 bar
65 °C
1 bar
0 ÷ 5 l/min
± 10%
water in compliance with UNI 8065:2019

## Materials

Manifolds Manifold: AISI 304 stainless steel Housing: CW 617 N - DW UNI-EN 12165:2016 Gaskets: Peroxide cured EPDM Flow meters Flow meter: Thermo-resistant plastic material Stainless steel Spring: Peroxide cured EPDM Gaskets: Thermostatic screw CW 614 N - DW UNI-EN 12164:2016 Screw: Stem: Stainless steel Gaskets: Peroxide cured EPDM Stuffing gasket: Teflon RAL9016 white ABS Knob: Manual air vent valves CW 614 N - DW UNI-EN 12164:2016 Valve body: Valve body: Thermo resistant plastic material Peroxide cured EPDM Gaskets: 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 End cap CW 617 N - DW UNI-EN 12165:2016 End cap body: Gaskets Peroxide cured EPDM **Brackets** Brackets: Galvanized steel Clamps: Galvanized steel NBR Gaskets:

## Finish

Nickel plating

# **Dimensional Drawings**

# CX 4004

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







Code	Size	А	С	D	Е	Code	Size	F	G	Н	L
17400402XROM	G1" x G3/4Ek	180	190	200	50	17400402XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400403XROM	G1" x G3/4Ek	230	240	200	50	17400403XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400404XROM	G1" x G3/4Ek	280	290	200	50	17400404XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400405XROM	G1" x G3/4Ek	330	340	200	50	17400405XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400406XROM	G1" x G3/4Ek	380	390	200	50	17400406XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400407XROM	G1" x G3/4Ek	430	440	200	50	17400407XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400408XROM	G1" x G3/4Ek	480	490	200	50	17400408XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400409XROM	G1" x G3/4Ek	530	540	200	50	17400409XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400410XROM	G1" x G3/4Ek	580	590	200	50	17400410XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400411XROM	G1" x G3/4Ek	630	640	200	50	17400411XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400412XROM	G1" x G3/4Ek	680	690	200	50	17400412XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400413XROM	G1" x G3/4Ek	730	740	200	50	17400413XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400414XROM	G1" x G3/4Ek	780	790	200	50	17400414XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32
17400415XROM	G1" x G3/4Ek	830	840	200	50	17400415XROM	G1" x G3/4Ek	G3/4Ek	G1"	80	32

## Construction



#### Flow rate chart

- 1. Return manifold
- 2. Delivery manifold
- 3. Brackets
- 4. Manual air vent valve
- 5. End cap
- 6. Water load/drain tap



Pos.	Kvs	Item			
1	0.99	CX 4004 (for single outlet)			
Max suggested flow rate:		2450 l/h (on the manifold)			

### **Operating instructions**

#### Thermostatic screw



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.

### **Regulator / Flow meter**



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.
- 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:

- Place the flow meter on closed position.

· Remove the red fixing collar.

(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 regulators / flow meters can be blocked through a block cap. If necessary, these caps can be sealed with iron wire and lead seal.

Flow meter "memory stop" function. System which blocks the opening of the flow meter and allows, once the system is reopened, to stop at the initially set value (system project value).

1) Set the flow meter regulation to the system project value. During this operation the handwheel must be removed;

2) Screw the "Memory-Stop" collar counterclockwise (left-hand threading) until it reaches the end;

3) Replace the handwheel. Turning the handwheel clockwise, the single circuit can be closed. Turning the handwheel counterclockwise till the end, the circuit can be reopened until it reaches the set project value.

Using the two holes in the handwheel it is possible to seal the flow meter to prevent tampering with the setting.

### Warnings

Do only use Luxor manifolds with Luxor accessories with soft o-ring sealing. All Luxor 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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