

Luxor's distribution manifolds are from brass bar CW617N. The manifolds are tooled and produced with fully automated machineries and tested when complete with their accessories to guarantee their absolute tightness.

The threading on the connection is in compliance to ISO228.

The derivation lines are connected with fittings directly assembled, tightened and glued on the manifold with o-ring to avoid the possibility of loosening in case of assembly with the compression fittings. All the fittings and accessories of the manifolds are with soft tightening and do not require any other type of sealing element.

The manifolds are produced with yellow or nickel plated finishing, the side wheelbases are:

- 40 mm – G3/4
- 50 mm – G1"
- 50 mm – G1"1/4

Luxor's manifolds and their accessories meet all the requirements of a modern heating installation system and can be divided into:

Distribution manifolds with or without pre-assembled fittings for derivation, for traditional heating systems or sanitary systems.

Distribution manifolds with fittings, pre-assembled check and balancing valves mainly suitable for radiant panel systems.

The manifolds with fluid interception must be used with the liquid entering the manifolds always through the derivation. To avoid noise this manifold must be always assembled on the return circuit.

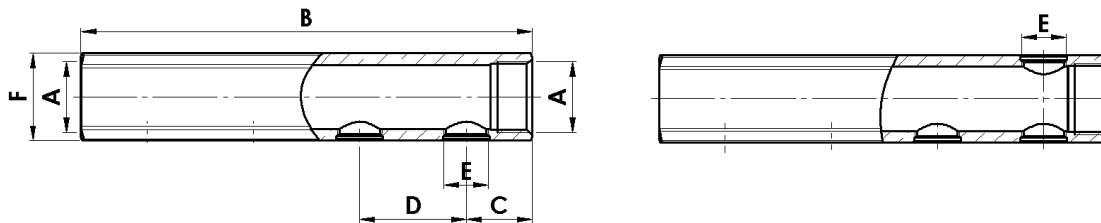
The tightening device on the stem of the manifolds with pre-assembled valves set for the thermo-electric regulation can be inspected and replaced even while the system is working. The protection cap, whereas the use is required, is necessary to protect the threading and also to check the fluid derivation.

The regulation and balancing manifolds (lockshield type) are with micrometric regulation and position memory, in case of temporary shut down, and can be assembled on both flow and return circuits.

The regulation and balancing manifolds, with regulators and flow-meters TM4012, allow an immediate inspection of the system balancing through the display of the flow. The regulation can be stopped with a stop lid. The cup and the spring can be assembled and cleaned while the system is working. This manifold can be installed on the flow.

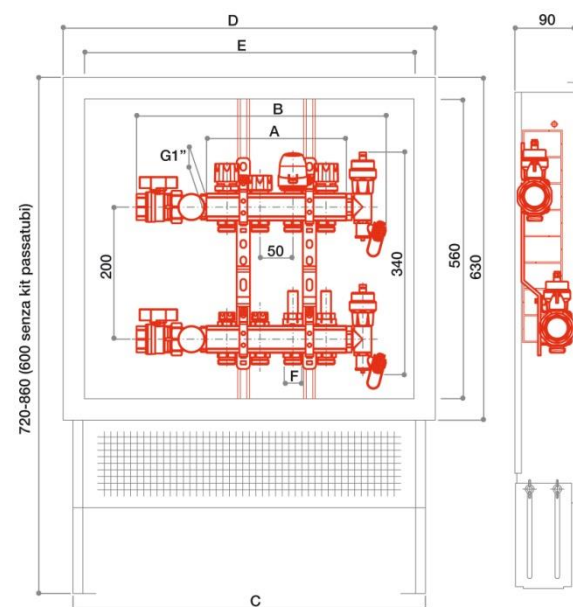
| | | |
|--|---|---------------|
| TECHNICAL FEATURES: | Max working pressure: | 10 bar |
| | Max working temperature: | 120 °C |
| | Max differential pressure: | 1 bar |
| TECHNICAL FEATURES WITH THERMOELECTRIC HEADS ART. TE | Fluid temperature: | 0 °C ÷ 100 °C |
| | Room working temperature: | 0 °C ÷ 60 °C |
| | Max relative humidity (without condensation): | 80% |
| TECHNICAL FEATURES WITH REGULATORS AND FLOW METERS TM 4012: | Max working pressure: | 10 bar |
| | Max working temperature: | 70 °C |
| | Max differential pressure: | 1 bar |
| | Flow-meter regulation range: | 0 ÷ 5 l/min |
| | Flow meter-regulation range: | ± 10% |

| | | |
|-------------------------------|------------------------------------|-----------------------------------|
| CONSTRUCTION FEATURES: | MANIFOLDS | |
| | Manifold material: | CW 617 N UNI-EN 12165-98 |
| | Housing material: | CW 617 N UNI-EN 12165-98 |
| | Gasket material: | EPDM peroxide |
| | FLOW METERS | |
| | Flow-meter material: | Thermo-resistant plastic material |
| | Spring material: | Stainless steel |
| | Gasket materials: | EPDM peroxide |
| | Spring: | Stainless steel |
| | Flow-meter body material | CW 614 N UNI-EN 12164-98 |
| | THERMOSTATIC SCREW | |
| | Screw material: | CW 614 N UNI-EN 12164-98 |
| | Rod Material: | Stainless steel |
| | Gasket material: | EPDM peroxide |
| | Stuffing box material: | Teflon |
| | Handle material: | White ABS RAL9010 |
| | LOCKSHIELD | |
| | Lockshield material: | CW 614 N UNI-EN 12164-98 |
| | Gasket material: | EPDM peroxide |
| | Handle material: | White ABS RAL9010 |
| Flat gasket material: | Fasit | |
| GALVANIC TREATMENT: | Yellow or nickel plating finishing | |

DIMENTIONAL DRAWINGS
DISTRIBUTION MANIFOLDS WITH G1/2 F CONNECTION AND DRAIN


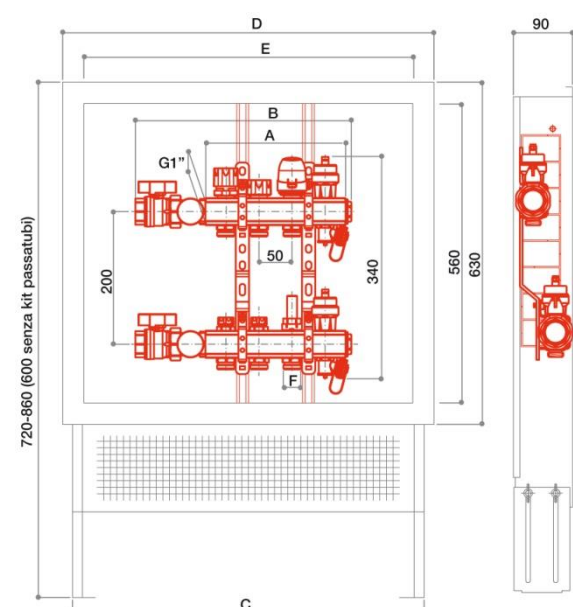
| Size | N. WAYS | A | B | C | D | E | F | G | H | L | M | N | P | R |
|----------------|---------|---------|-----|------|-------|-------|----|---|---|---|---|---|---|---|
| G 3/4 | 2 | G 3/4 | 93 | 26.5 | 40 | G 1/2 | 35 | | | | | | | |
| | 3 | G 3/4 | 133 | 26.5 | 40 | G 1/2 | 35 | | | | | | | |
| | 4 | G 3/4 | 173 | 26.5 | 40 | G 1/2 | 35 | | | | | | | |
| | 5 | G 3/4 | 213 | 26.5 | 40 | G 1/2 | 35 | | | | | | | |
| | 6 | G 3/4 | 253 | 26.5 | 40 | G 1/2 | 35 | | | | | | | |
| | 7 | G 3/4 | 293 | 26.5 | 40 | G 1/2 | 35 | | | | | | | |
| | 8 | G 3/4 | 333 | 26.5 | 40 | G 1/2 | 35 | | | | | | | |
| | 9 | G 3/4 | 373 | 26.5 | 40 | G 1/2 | 35 | | | | | | | |
| G 1" | 10 | G 3/4 | 413 | 26.5 | 40 | G 1/2 | 35 | | | | | | | |
| | 2 | G 1" | 112 | 31 | 50 | G 1/2 | 41 | | | | | | | |
| | 3 | G 1" | 162 | 31 | 50 | G 1/2 | 41 | | | | | | | |
| | 4 | G 1" | 212 | 31 | 50 | G 1/2 | 41 | | | | | | | |
| | 5 | G 1" | 262 | 31 | 50 | G 1/2 | 41 | | | | | | | |
| | 6 | G 1" | 312 | 31 | 50 | G 1/2 | 41 | | | | | | | |
| | 7 | G 1" | 362 | 31 | 50 | G 1/2 | 41 | | | | | | | |
| | 8 | G 1" | 412 | 31 | 50 | G 1/2 | 41 | | | | | | | |
| | 9 | G 1" | 462 | 31 | 50 | G 1/2 | 41 | | | | | | | |
| | 10 | G 1" | 512 | 31 | 50 | G 1/2 | 41 | | | | | | | |
| G 1"1/4 | 11 | G 1" | 562 | 31 | 50 | G 1/2 | 41 | | | | | | | |
| | 12 | G 1" | 612 | 31 | 50 | G 1/2 | 41 | | | | | | | |
| | 13 | G 1" | 662 | 31 | 50 | G 1/2 | 41 | | | | | | | |
| | 2 | G 1"1/4 | 114 | 32 | 50 | G 1/2 | 51 | | | | | | | |
| | 3 | G 1"1/4 | 164 | 32 | 50 | G 1/2 | 51 | | | | | | | |
| | 4 | G 1"1/4 | 214 | 32 | 50 | G 1/2 | 51 | | | | | | | |
| | 5 | G 1"1/4 | 264 | 32 | 50 | G 1/2 | 51 | | | | | | | |
| | 6 | G 1"1/4 | 314 | 32 | 50 | G 1/2 | 51 | | | | | | | |
| | 7 | G 1"1/4 | 364 | 32 | 50 | G 1/2 | 51 | | | | | | | |
| | 8 | G 1"1/4 | 414 | 32 | 50 | G 1/2 | 51 | | | | | | | |
| | 9 | G 1"1/4 | 464 | 32 | 50 | G 1/2 | 51 | | | | | | | |
| | 10 | G 1"1/4 | 514 | 32 | 50 | G 1/2 | 51 | | | | | | | |
| | 11 | G 1"1/4 | 564 | 32 | 50 | G 1/2 | 51 | | | | | | | |
| 12 | G 1"1/4 | 614 | 32 | 50 | G 1/2 | 51 | | | | | | | | |
| 13 | G 1"1/4 | 664 | 32 | 50 | G 1/2 | 51 | | | | | | | | |

MANIFOLD G1"



| N. WAYS | A | B | C | D | E | F |
|---------|-----|-----|------|------|-----|-----------------|
| 2 | 112 | 276 | 500 | 560 | 490 | M24x19 – G3/4EK |
| 3 | 162 | 326 | | | | |
| 4 | 212 | 376 | | | | |
| 5 | 262 | 426 | 700 | 760 | 690 | |
| 6 | 312 | 476 | | | | |
| 7 | 362 | 526 | | | | |
| 8 | 412 | 576 | | | | |
| 9 | 462 | 626 | 850 | 910 | 840 | |
| 10 | 512 | 676 | | | | |
| 11 | 562 | 726 | | | | |
| 12 | 612 | 776 | 1000 | 1060 | 990 | |
| 13 | 662 | 826 | | | | |

MANIFOLD G1" WITH DRAIN



| N. WAYS | A | B | C | D | E | F |
|---------|-----|-----|-----|-----|-----|-----------------|
| 2 | 162 | 276 | 500 | 560 | 490 | M24x19 – G3/4EK |
| 3 | 212 | 326 | | | | |
| 4 | 262 | 376 | | | | |
| 5 | 312 | 426 | 700 | 760 | 690 | |
| 6 | 362 | 476 | | | | |
| 7 | 412 | 526 | | | | |
| 8 | 462 | 576 | | | | |
| 9 | 512 | 626 | 850 | 910 | 840 | |
| 10 | 562 | 676 | | | | |
| 11 | 612 | 726 | | | | |
| 12 | 662 | 776 | - | - | - | |
| - | - | - | | | | |

MANIFOLDS G1"1/4

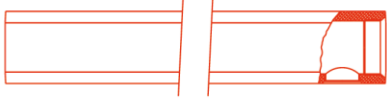
| N. WAYS | A | B | C | D | E | F |
|---------|-----|-----|------|------|-----|-----------------|
| 2 | 114 | 260 | 500 | 565 | 490 | M24x19 – G3/4EK |
| 3 | 164 | 310 | | | | |
| 4 | 214 | 360 | | | | |
| 5 | 264 | 410 | 700 | 765 | 690 | |
| 6 | 314 | 460 | | | | |
| 7 | 364 | 510 | | | | |
| 8 | 414 | 560 | | | | |
| 9 | 464 | 610 | 850 | 915 | 840 | |
| 10 | 514 | 660 | | | | |
| 11 | 564 | 710 | | | | |
| 12 | 614 | 760 | 1000 | 1065 | 990 | |
| 13 | 664 | 810 | | | | |

MANIFOLD G1"1/4 WITH DRAIN

| N. WAYS | A | B | C | D | E | F |
|---------|-----|-----|------|------|-----|-----------------|
| 2 | 164 | 310 | 500 | 565 | 490 | M24x19 – G3/4EK |
| 3 | 214 | 360 | | | | |
| 4 | 264 | 410 | | | | |
| 5 | 314 | 460 | 700 | 765 | 690 | |
| 6 | 364 | 510 | | | | |
| 7 | 414 | 560 | | | | |
| 8 | 464 | 610 | | | | |
| 9 | 514 | 660 | 850 | 915 | 840 | |
| 10 | 564 | 710 | | | | |
| 11 | 614 | 760 | | | | |
| 12 | 664 | 810 | 1000 | 1065 | 990 | |
| - | - | - | - | - | - | |

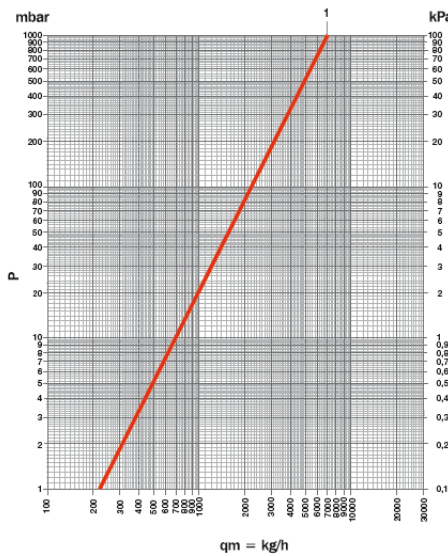
It is possible to install manifolds G1" in wall boxes with depth 110mm

FLOW RATE CHART



ARTICLES

CD 451; CD 456; CD 860; CD 457; CD 861
(for each single outlet)



CURVE

1

N. LOOPS

ALL OPEN

KV

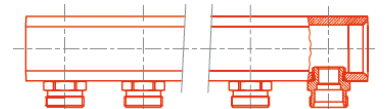
7.00

Max flow recommended:

2250 l/h (on manifolds G3/4)

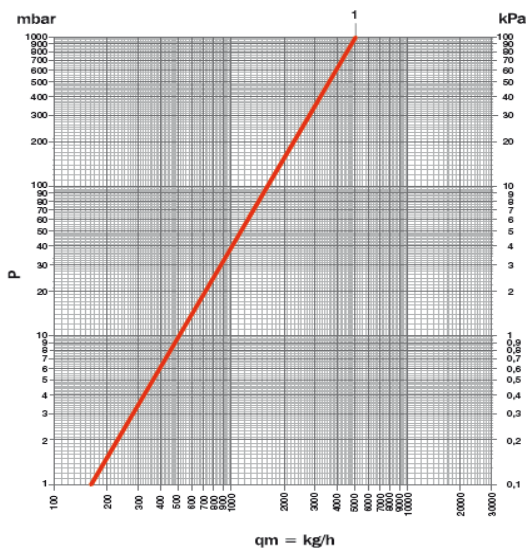
3900 l/h (on manifold G1")

6600 l/h (on manifold G1"1/4)



ARTICLES

CD 459; CD 461; CD 862; CD 864; CD 460; CD 462; CD 863; CD 865
(for each single outlet)



CURVE

1

N. LOOPS

ALL OPEN

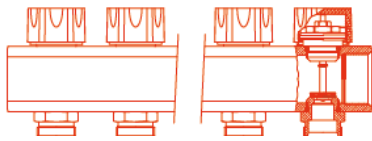
KV

5.10

Max flow recommended:

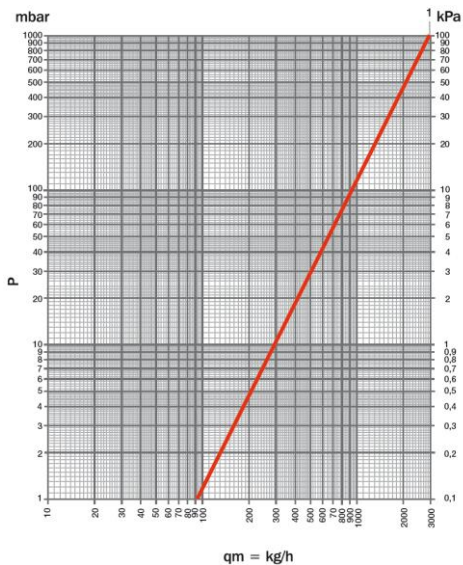
3900 l/h (on manifold G1")

6600 l/h (on manifold G1"1/4)



ARTICLES

CD 1466; CD 1446; CD 875; CD 876; CD 3466; CD 3446;
 CD 877; CD 878; CD 466; CD 446; CD 871; CD 872; CD
 2466; CD 2446; CD 873; CD 874
 (for each single outlet)



CURVE

N. LOOPS

KV

1

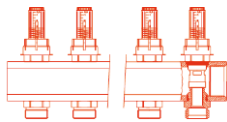
ALL OPEN

2.98

Max flow recommended:

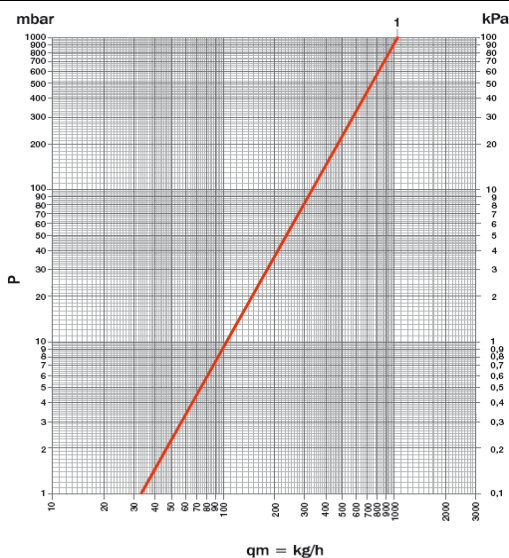
2400 l/h (on manifold G1")

4200 l/h (on manifold G1"1/4)



ARTICLES

CD 1474; CD 474; CD 868; CD 867; CD 3474; CD 2474;
 CD 870; CD 869
 (for each single outlets)



CURVE

N. LOOPS

KV

1

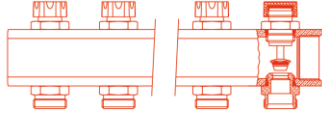
ALL OPEN

1.05

Max flow recommended:

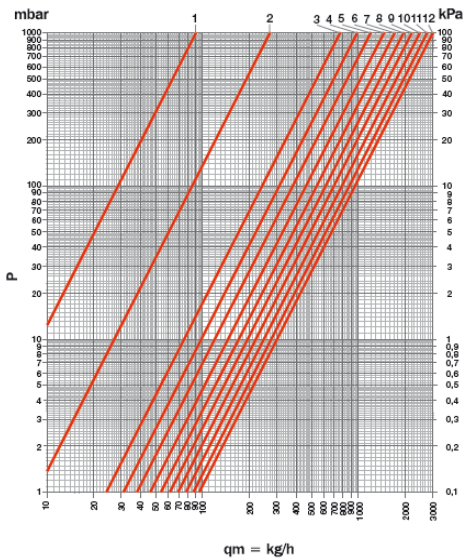
1350 l/h (on manifold G1")

3150 l/h (on manifold G1"1/4)



ARTICOLI

CD 449; CD 448; CD 879; CD 880; CD 1449; CD 1448;
CD 881; CD 882
(for single outlet)



CURVE

N. LOOPS

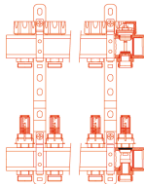
KV

| CURVE | N. LOOPS | KV |
|-------|----------|------|
| 1 | 1/2 | 0.09 |
| 2 | 1 | 0.27 |
| 3 | 1+1/2 | 0.76 |
| 4 | 2 | 0.98 |
| 5 | 2+1/2 | 1.20 |
| 6 | 3 | 1.46 |
| 7 | 3+1/2 | 1.70 |
| 8 | 4 | 1.93 |
| 9 | 4+1/2 | 2.19 |
| 10 | 5 | 2.47 |
| 11 | 5+1/2 | 2.75 |
| 12 | ALL OPEN | 3.01 |

Max flow recommended:

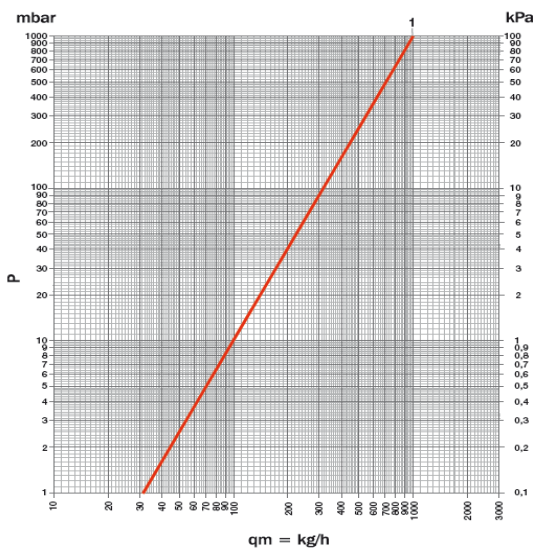
2400 l/h (on manifold G1")

4200 l/h (on manifold G1"1/4)



ARTICLES

CD 2478; CD 2473; CD 2878; CD 2873; CD 2479; CD
2477; CD 2879; CD 2877; CD 478; CD 473; CD 1878; CD
1873; CD 479; CD 477; CD 1879; CD 1877
(for single outlet)



CURVE

N. LOOPS

KV

1

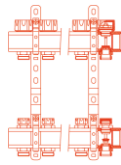
ALL OPEN

0.99

Max flow recommended:

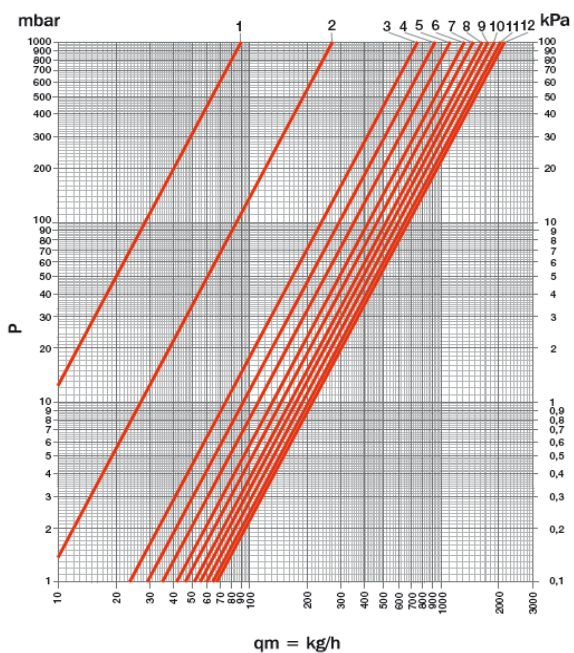
1350 l/h (on manifold G1")

3150 l/h (on manifold G1"1/4)



ARTICLES

CD 2465; CD 2468; CD 2865; CD 2868; CD 2467; CD 2469; CD 2867; CD 2869; CD 465; CD 468; CD 1865; CD 1868; CD 467; CD 469; CD 1867; CD 1869
(for each single outlet)



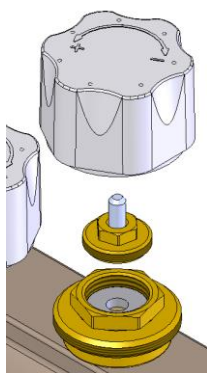
| CURVE | N. LOOPS | KV |
|-------|----------|------|
| 1 | 1/2 | 0.09 |
| 2 | 1 | 0.27 |
| 3 | 1+1/2 | 0.75 |
| 4 | 2 | 0.93 |
| 5 | 2+1/2 | 1.11 |
| 6 | 3 | 1.31 |
| 7 | 3+1/2 | 1.48 |
| 8 | 4 | 1.62 |
| 9 | 4+1/2 | 1.76 |
| 10 | 5 | 1.90 |
| 11 | 5+1/2 | 2.02 |
| 12 | ALL OPEN | 2.12 |

Max flow recommended::

2400 l/h (on manifold G1")

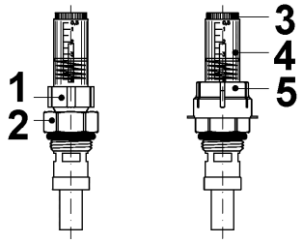
4200 l/h (on manifold G1"1/4)

OPERATING INSTRUCTIONS



To replace the set of the thermostatic screw while the system is working proceed following the below steps:

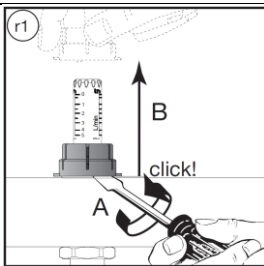
- Remove the protection cap, or the hand wheel or the thermostatic or thermoelectric head;
- Unscrew the part with a 9mm key while blocking the body of the screw with a 19mm key.
- Replace the part with the new one screwing it in with a 9mm key.
- Replace the protection cap or the hand wheel or the thermostatic or thermoelectric head;.



The glass and the spring can be removed for cleaning:

- Close the flow meter and its corresponding valve positioned on the return ring.
- To remove the glass unscrew the part acting on the collar.
- There will be slight but negligible water leaking during this operation
- The glass can now be removed and cleaned.
- To re-assemble proceed reversing the steps.

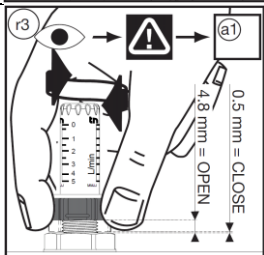
1. Regulating collar 2. Fixing collar 3. Glass collar
4. Glass 5. Block cap



The theoretical flow value of the hydraulic circuit, defined by the installer, is given by the regulation carried out through the flow-meters placed on the inlet manifold. The regulation has to be done on the valve placed on the return completely open. Since the flow of each ring affects the others, the regulation must be done for each ring until the project values l/min are reached.

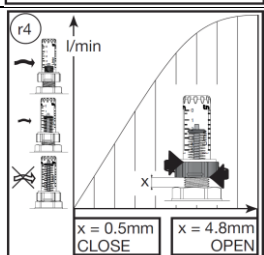
To adjust the flow:

- Remove the red blocking collar.

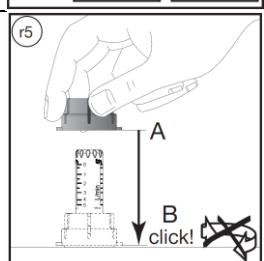


- Place the flow-meter on close position.

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



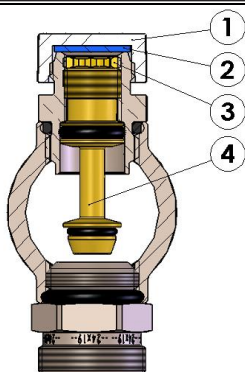
- Open the flow-meter until the flow required is displayed.



- Replace the blocking collar.

Balancing protection against tampering:

- 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.



Regulating instruction of the manifolds with lockshields:

- Unscrew the cap (1);
- With an Allen key screw the obturator (4) until the position of tightness ;
- The lockshield is ready to be regulated. On the differential pressure diagram is described the relation between the Kv value, the position of the obturator and the corresponding curve. This means that if the lockshield is unscrewed for a certain number of loops the required Kv will be reached;
- Using the collar (3) code.:3346656, supplied separately, it is possible to set a mechanic limit of the shutter. Once the required value is set through the shutter the regulating collar must be screwed against the shutter. By doing this it is possible to close and re-open the shutter without losing the pre-set regulating position.

| | | |
|---|----------------------------|-----------|
|  | TECHNICAL DATA FILE | CD |
|---|----------------------------|-----------|

| | |
|--|---|
| | 1. ABS cap 2. Sealing gasket 3. Regulating collar 3346656 4. Shutter |
|--|---|