



### Function

Luxor's distribution manifolds with a single outlet are components especially studied so that, if necessary, a secondary circuit can be added, they can be assembled and assemblage can be always done in alignment with the manifolds already fixed through a locknut or an o-ring fitting.

The line includes single manifolds with electronically controlled valves, lockshield and flow meter.

The threadings of the main connections are in compliance with ISO228. The secondary circuits are connected through fittings with o-ring sealings assembled and glued to the manifold in order not to unscrew, should the compression fitting be dismantled. All Luxor fittings and accessories for manifolds are provided with this kind of 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.

### 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%

### Technical data with regulator / flow meter

Maximum working pressure:	6 bar
Maximum working temperature:	70 °C
Maximum differential pressure:	1 bar
Flow meter regulation range:	0 ÷ 5 l/min
Flow meter regulation precision:	± 10%

## **Materials**

### **Manifolds**

Manifold:	CW 617 N – DW UNI-EN 12165:2016
Housing:	CW 617 N – DW UNI-EN 12165:2016
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

### **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

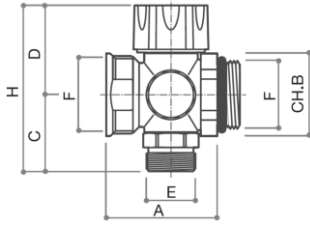
### **Finish**

Nickel plating

## Dimensional Drawings

### CD 1466

One outlet manifold with built-in valve set for thermoelectric adjustment and protection cap.

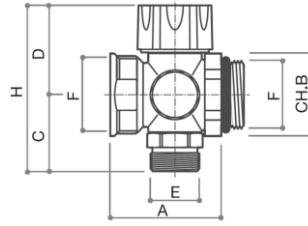


Code	Size	A	B	C	D	E
15112401N	G1"xW24x19	54	37	37	43	W24x19

Code	Size	F	G	H	L	M
15112401N	G1"xW24x19	G1"	G1/2	80	-	-

### CD 1446

One outlet manifold with built-in valve set for thermoelectric adjustment and protection cap.

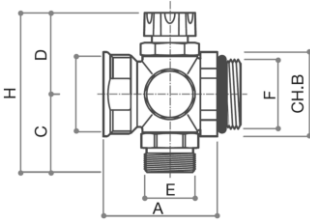


Code	Size	A	B	C	D	E
15112701N	G1"xG3/4Ek	54	37	37	43	G3/4Ek

Code	Size	F	G	H	L	M
15112701N	G1"xG3/4Ek	G1"	G1/2	80	-	-

### CD 449

One outlet manifold with built-in lockshield.

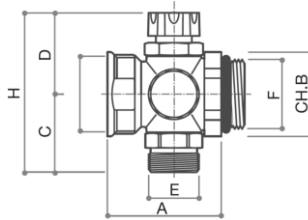


Code	Size	A	B	C	D	E
15212401N	G1"xW24x19	54	37	37	39	W24x19

Code	Size	F	G	H	L	M
15212401N	G1"xW24x19	G1"	G1/2	76	-	-

### CD 448

One outlet manifold with built-in lockshield.

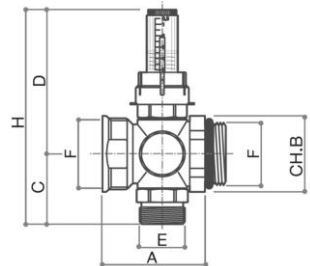


Code	Size	A	B	C	D	E
15212701N	G1"xG3/4Ek	54	37	37	39	G3/4Ek

Code	Size	F	G	H	L	M
15212701N	G1"xG3/4Ek	G1"	G1/2	76	-	-

### CD 1474

One outlet manifold with regulator/flow meter.

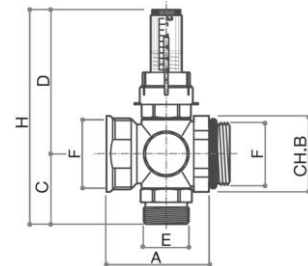


Code	Size	A	B	C	D	E
15252401N	G1"xW24x19	54	37	37	76	W24x19

Code	Size	F	G	H	L	M
15252401N	G1"xW24x19	G1"	G1/2	113	-	-

### CD 474

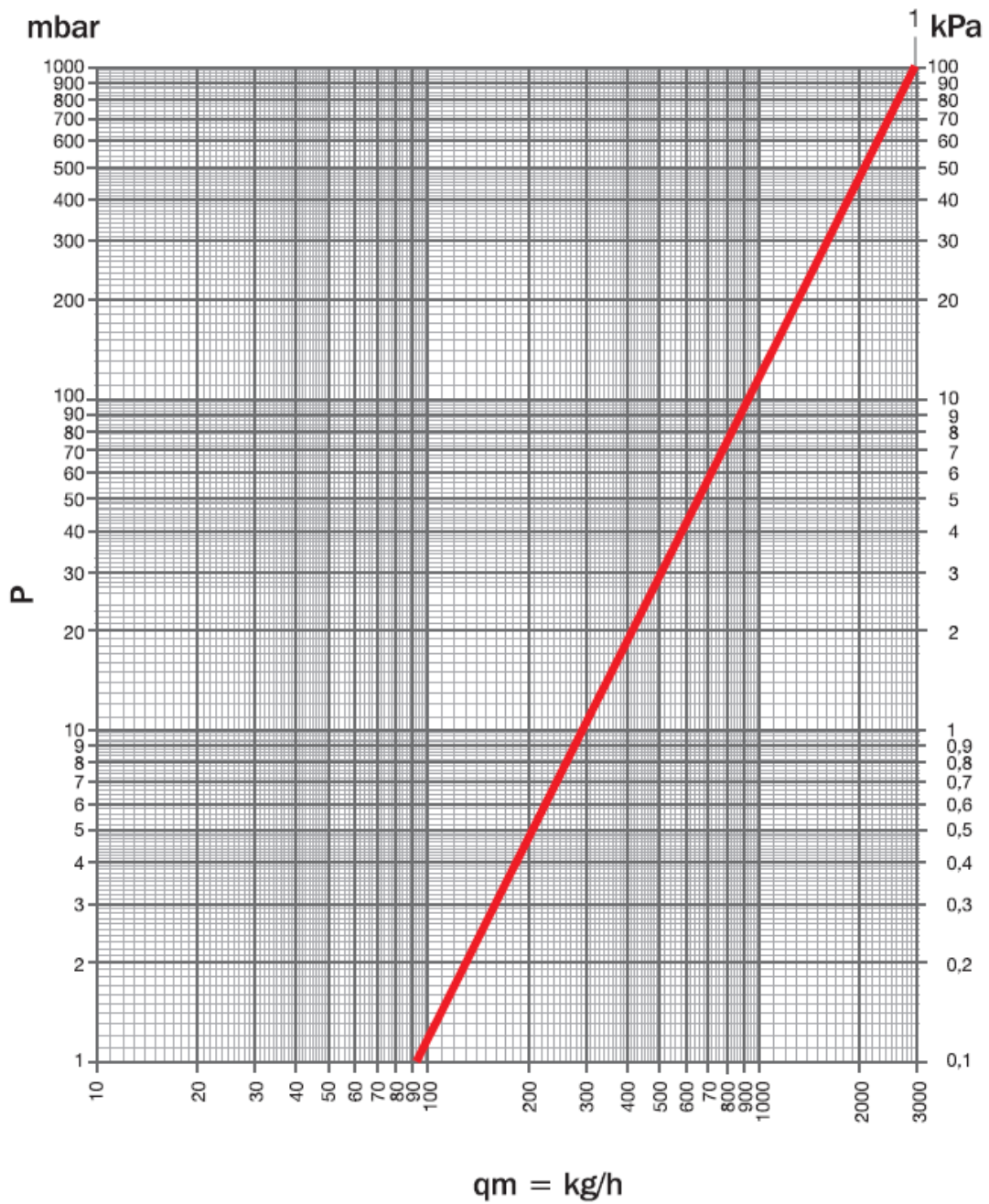
One outlet manifold with regulator/flow meter.



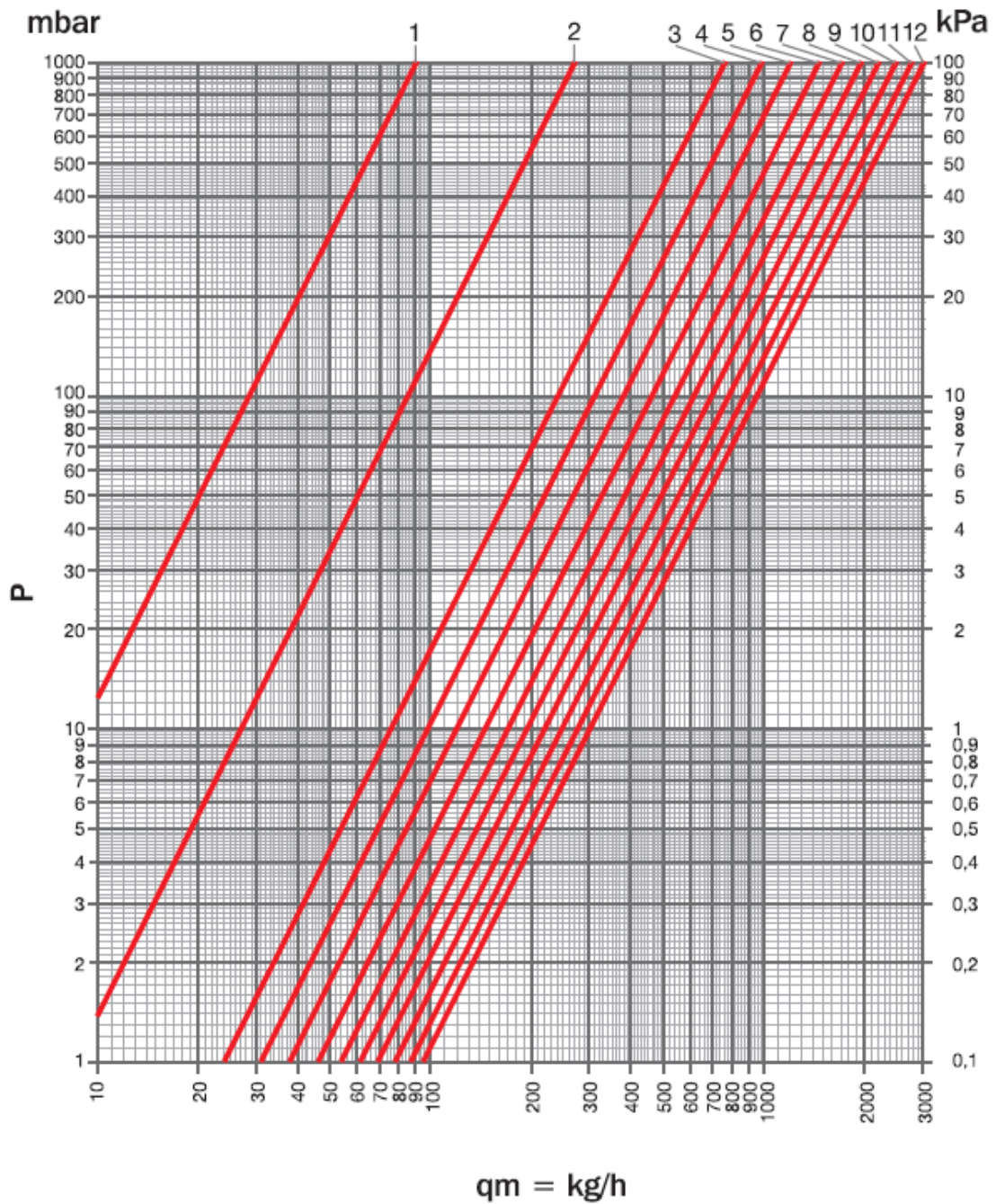
Code	Size	A	B	C	D	E
15252701N	G1"xG3/4Ek	54	37	37	76	G3/4Ek

Code	Size	F	G	H	L	M
15252701N	G1"xG3/4Ek	G1"	G1/2	113	-	-

Flow rate chart

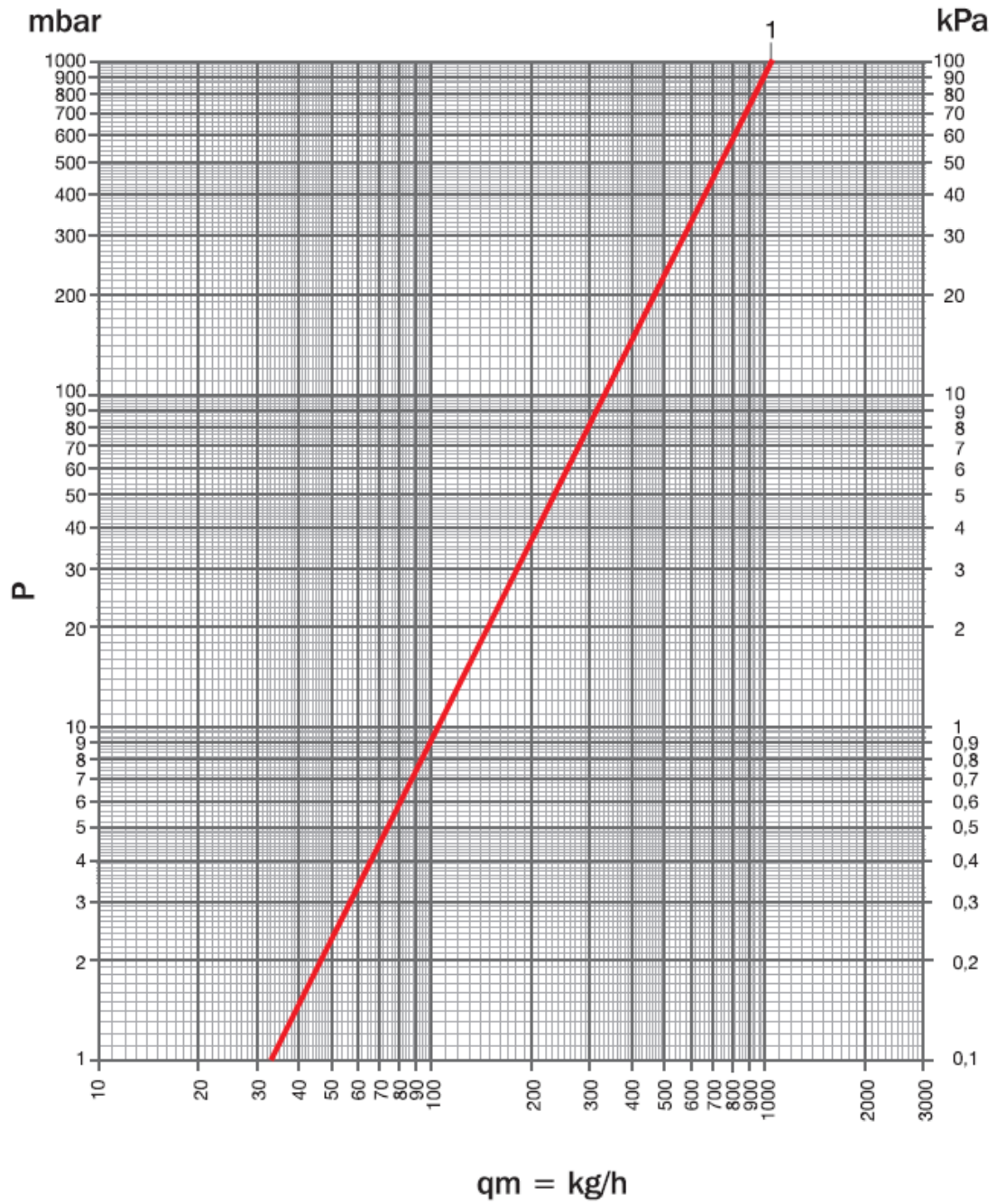


Pos.	Kvs	Item
1	2.98	CD 1466; CD 1446
Max suggested flow rate:		2600 l/h



Pos.	Turns No.	Kvs	Item
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	CD 449; CD 448
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	

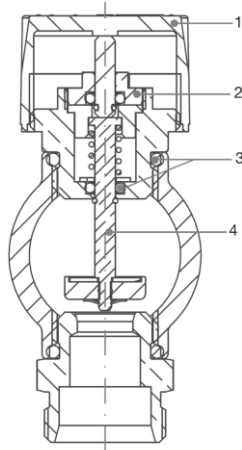
Max suggested flow rate: 2350 l/h (on the manifold)



Pos.	Kvs	Item
1	1.05	CD 1474; CD 474
Max suggested flow rate:		1600 l/h

## Operating instructions

### Thermostatic screw



1. ABS plug or manual knob

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2. Sealing assembly item 516

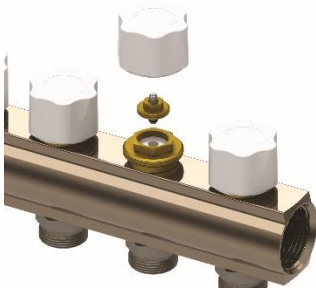
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3. Gasket

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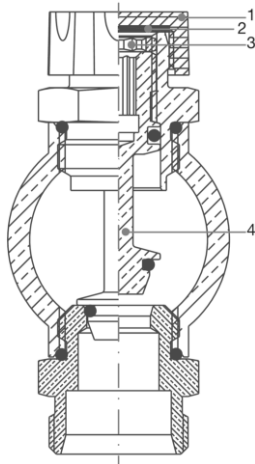
4. Obturator

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

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2. Gasket

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3. Adjusting collar code 3346656

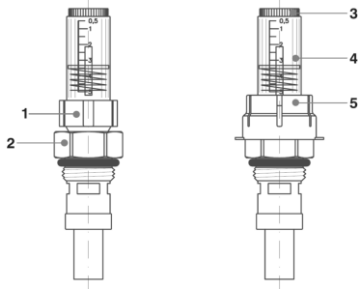
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4. Obturator

Adjustment instructions for manifolds with lockshields:

- Unscrew the plug (1);
- Screw the obturator with a hex key (4) 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 chart. 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.

## Regulator / Flow meter



1. Adjusting collar

2. Fixing collar

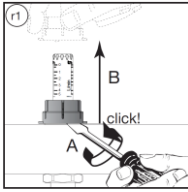
3. Glass collar

4. Glass

5. 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.
- The glass can now be easily cleaned.
- To reassemble, follow the above instructions in reverse.

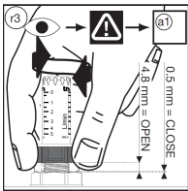


The theoretical flow rate of a hydraulic circuit, assigned by a technician, is given by the adjustment carried out through the regulator/flow meters placed on the delivery manifold.

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.

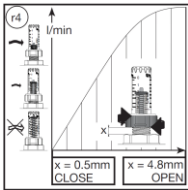
To adjust the flow:

- Remove the red fixing collar.

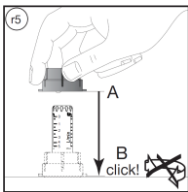


- Place the flow meter on closed position.

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



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