PRODUCTION RANGE

Connections	Rod	PN [bar]	Size	Code	Kv [m³/h]
THREADED FF UNI-EN-ISO 228	BRASS	25	1/2"	860.04.02	3,11
		25	3/4"	860.05.02	6,39
		25	1"	860.06.02	10,11
		16	1"1/4	860.07.02	16,67
		16	1"1/2	860.08.02	24,62
		16	2"	860.09.02	38,84
		6	2"1/2	3082 22	-
		6	3"	3082 30	-
		6	4"	3082 40	-
THREADED FF UNI-EN-ISO 228	PLASTIC	25	1/2"	860.04.12	3,11
		25	3/4"	860.05.12	6,39
		25	1"	860.06.12	10,11
		16	1"1/4	860.07.12	16,67
		16	1"1/2	860.08.12	24,62
		16	2"	860.09.12	38,84
THREADED MM UNI-EN-ISO 228	PLASTIC	25	1/2"	1851.04.10	3,11
		25	3/4"	1851.05.10	6,39
		25	1"	1851.06.10	10,11

DESCRIPTION

Non-controllable retaining valve, suitable for all types of systems (industrial, pneumatic, hydraulic and residential). It can be located in horizontal, vertical and oblique position.

The internal sealing device was designed so as to withstand circuit overpressure and to always guarantee greatest valve efficiency.

PURPOSE

The non-controllable retaining valve can be considered as a safety means to be inserted inside a circuit.

It has the purpose of allowing the circulation of the fluid inside the circuit only in the direction imposed by the retaining valve and to prevent the fluid from flowing in the opposite direction from the direction imposed by the valve.

USE

The non-controllable retaining valve can be used in industrial and residential systems and can be mounted in horizontal, vertical and oblique position.

When mounting, **it is important to observe the direction shown by the arrow on the retaining valve body**.

In the case where overpressure is present in the circuit, the shutter of the sealing system is placed directly on the stop present in the body of the retaining valve and it guarantees perfect closure of the valve.

CONSTRUCTION CHARACTERISTICS

|	
Body	: brass DIN 17660
Ring	: brass DIN 17660
Spring	: AISI 302
Gaskets	: EPDM + PEROX
Threaded connections	: FF UNI-EN-ISO 228
	: MM UNI-EN-ISO 228

TECHNICAL CHARACTERISTICS

P_{max} Maximum operating pressure : 25/16/6 bar
P_{min} Minimum opening pressure : 0,04 bar (4 KPa)
T_{max} Maximum operating temp. : 0° ÷ 90 °C (water)
 -20° ÷ 110°C (air)
Fluid used : water, air

DIMENSIONAL CHARACTERISTICS
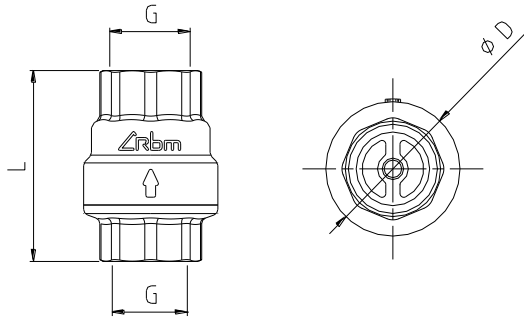
Code	Size (G)	DN [mm]	L [mm]	ØD [mm]
860.04.X2	1/2"	15	49	34,5
860.05.X2	3/4"	20	57	40,5
860.06.X2	1"	25	68	48,5
860.07.X2	1" 1/4	32	70	58,5
860.08.X2	1" 1/2	40	75	68,5
860.09.X2	2"	50	81	85
3082 22	2" 1/2	65	-	-
3082 30	3"	80	-	-
3082 40	4"	100	-	-
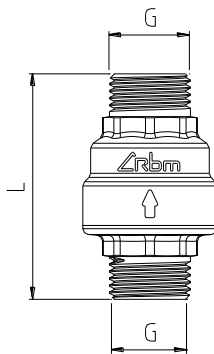
Code	Size (G)	DN [mm]	A [mm]	ØD [mm]
1851.04.10	1/2"	15	58	34,5
1851.05.10	3/4"	20	65,3	40,5
1851.06.10	1"	25	80	48,5

ACCESSORIES

THREADED FLANGE PN16

- Body made of nickel-plated brass;
- Threaded connection M UNI-EN-ISO 228/I;
- Flange connection UNI 2223 PN 16
  DIN 2566 PN 16;
- P_{max} maximum operating pressure: 16 bar;
- Max. temperature: 150 °C;

| Code	Size	DN
120.04.00	1/2"	DN15
120.05.00	3/4"	DN20
120.06.00	1"	DN25
120.07.00	1"1/4	DN32
120.08.00	1"1/2	DN40
120.09.00	2"	DN50
120.10.00	2"1/2	DN65
120.11.00	3"	DN80
120.13.00	4"	DN100

FILTER WITH THREADED FITTING

Combined with retaining valves, this filter protects pumps

- Filter made of AISI 304L stainless steel
- Threaded fitting 6.6
- Maximum operating temperature: 90 °C

Code	Size
859.04.02	1/2"
859.05.02	3/4"
859.06.02	1"
859.07.02	1" 1/4
859.08.02	1" 1/2
859.09.02	2"

Pressure drop chart
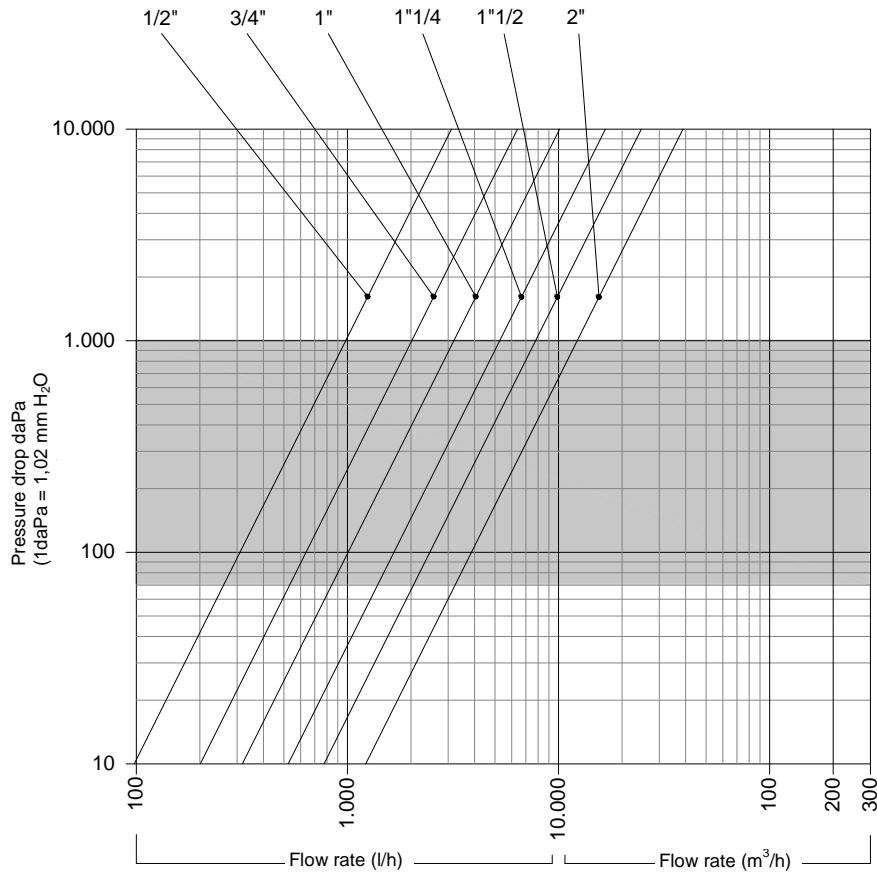
Analytical procedure for determining the pressure drop of liquids with $\rho \cong$ 1 kg/dm^3

$$\Delta P = \left(\frac{Q}{Kvs} \right)^2 \times 10000$$

suitable for water at temperatures from 0 to 30 °C

Correction of ΔP for fluids with ρ different from 1 kg/dm^3

$$\Delta P' = \Delta P \times \rho'$$

Analytical procedure for determining the dimensions of the retaining valve, suitable for liquids with $\rho \cong$ 1 kg/dm^3

$$Kvs = Q * \left(\frac{10000}{\Delta P} \right)^{0,5}$$

suitable for water at temperatures from 0 to 30 °C

Correction of kvs for fluids with ρ different from 1 kg/dm^3

$$Kvs' = Kvs * \sqrt{\rho'}$$

Key

ΔP = pressure drop in daPa (1daPa=10Pa).

$\Delta P'$ = pressure drop corrected into daPa (1daPa=10Pa).

ΔP_{max} = recommended pressure difference for correct operation

Q = flow rate in m^3/h

Kvs = hydraulic characteristic in m^3/h (1m^3/h=1.000 l/h)

ρ' = density of the liquid in kg/dm^3

QUICK CHOICE OF A RETAINING VALVE*

SIZE	Kv	TRANSIT WATER FLOW RATE [l/h]	
		with ΔP 1000 Pa	with ΔP 10.000 Pa
1/2"	3,11	301	952
3/4"	6,39	639	2.020
1"	10,11	1.011	3.197
1"1/4	16,67	1.667	5.270
1"1/2	24,62	2.462	7.785
2"	38,84	3,884	12.280
2"1/2	-	-	-
3"	-	-	-
4"	-	-	-

*   This table has the purpose of providing technicians with only a quick indicative reference and of allowing them to combine the component chosen with a certain system size. The values shown in the table are not binding. They are only limit values referring to the performance of components.

RBM Spa
Via S.Giuseppe, 1
25075 Nave (Brescia) Italy
Tel. 030-2537211 Fax 030-2531798

RBM Spa
Via S.Giuseppe, 1
25075 Nave (Brescia) Italy
Tel. 030-2537211 Fax 030-2531798
E-mail: info@rbm.eu – www.rbm.eu