

Technical data sheet

Type 10BIS and 10BIS RC

Pressure reducing valve

Desbordes®

Applications and special features



- Control and maintain the downstream pressure at an adjustable reduced value, whether there is a flow or not.
- Keep an outlet pressure at a constant value, even by variation of the upstream pressure (the down-stream pressure cannot vary more than 10 % of the variation of the upstream pressure, according to the Standard).
- No maintenance required, not affected by scale or dirt.
- Can be installed in any position.
- Guarantee a high flow rate at a constant outlet pressure because of low head loss.
- Work as pressure reducing valve (standard terminology) as well as "regulator" and as "pressure regulating valve" (when applies for gas).
- Pre-set at 3bar.
- Downstream setting : 1bar to 6 bar; indicative value according to EN1567
- Equipped with 2 pressure gauge connections 1/4" and drain at the bottom of the casing.
- Also available with compensating spring : type 10 bis RC, for lower downstream pressure. (DN 10 - 80 mm)

Technical description

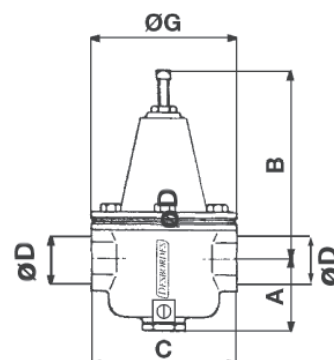
DN	PFA	PS (bar)				Cat	Reference	Vvs-nr	Reference	Vvs-nr
"	mm	L1	L2	G1	G2		10 bis		10 bis RC	
3/8	10	25	25	X	25	3.3	149B7003		149B7019	
1/2	15	25	25	X	25	3.3	149B7004		149B7020	
3/4	20	25	25	X	25	3.3	149B7005		149B7021	
1	25	25	25	X	25	3.3	149B7006		149B7022	
1 1/4	32	25	25	X	25	3.3	149B7007		149B7023	
1 1/2	40	25	25	X	25	3.3	149B7008		149B7024	
2	50	25	25	X	20	3.3	149B7009		149B7025	
2 1/2	65	25	25	X	15	3.3	149B7011		149B7027	
3	80	25	25	X	12	3.3	149B7012		149B7028	
4	100	25	20	X	10	3.3	149B7225		-	

L1, L2, G1 and G2 correspond to liquids/gas classified into degree of danger according to the Pressure Equipment Directive (PED). The article 3.3 applies to equipments with no CE marking.

- **Connection** : female/female, BSP thread
- **Downstream pressure gauge connection** : 1/4"
- **Permissible operating pressure PFA - water** : See table
- **Maximum permissible pressure PS - other mediums** : See table
- **θ** : Mini. -10 °C
Maxi. in permanent service : 80 °C
(40°C domestic fuel oil)
- **Mediums** : water, air and neutral gas , domestic fuel oil.
- **Approvals** : ACS
WRAS (except 10bisrc) - **VDI** (except 10bisrc)
- **International construction Standards** :
Pressure reducing valves EN 1567
Thread connection NF EN ISO 228

Overall dimensions

DN	D	A	B	C	G	Weight
"	mm	mm	mm	mm	mm	(kg)
10	3/8	12/17	48	120	92	1,25
15	1/2	15/21	48	120	92	1,25
20	3/4	20/27	55	130	108	1,75
25	1	26/34	60	160	123	2,70
32	1 1/4	33/42	77	180	155	4,30
40	1 1/2	40/49	84	205	172	5,60
50	2	50/60	105	235	198	9,80
65	2 1/2	66/76	118	270	215	13,50
80	3	80/90	143	300	234	17,90
100	4	102/114	120	350	260	33,60



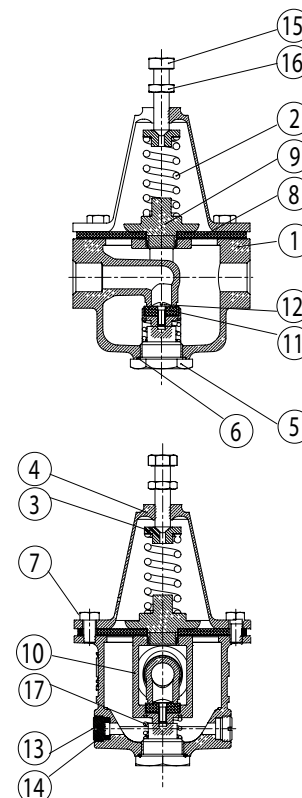
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Spare parts list and materials

Nb	Description	Material	EURO	ANSI
1	CASING	Bronze	CuSn5Zn5Pb5-C	ASTM B 505
2	SPRING	Anticorrosive steel	SH ou VD CrSi	
3	NUT FOR SPRING PRESSING	Brass	CuZn39Pb3	
4	CAP	Brass or alu-bronze or bronze	CuZn39Pb1 CuAl9 ou CuSn5Zn5Pb5	
5	CAP COVER	Brass or bronze	CuZn39Pb3 CuSn5Zn5Pb5 - C	
6	SEAL	NBR (Nitrile) or fibre		
7	SCREW	Stainless steel	X5CrNi 18-10	AISI 304
8	MEMBRANE	NBR/Polyamide (Nitrile)		
9	PLATE	Brass or bronze	CuZn39Pb2 ou CuSn5Zn5Pb5	
10	STIRRUP	Alu-Bronze DZR brass or Bronze	CuAl9 CuZn36Pb2As CuSn5Zn5Pb5	
11	FLAT SEAL	NBR (Nitrile)		
12	SCREW	Stainless steel	X5CrNi 18-10	AISI 304
13	SEAL	NBR (Nitrile) or fibre		
14	PRESSURE GAUGE CAP	DZR brass	CuZn36Pb2As	
15	ADJUSTING SCREW	Stainless steel	X5CrNi 18-10	AISI 304
16	NUT	Stainless steel	X5CrNi 18-10	AISI 304
17*	COMPENSATING SPRING	Stainless steel	X10CrNi 18-8	AISI 302

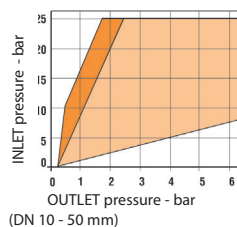
Spare part list for DN 100 : consult us

* For type 10bisrc only



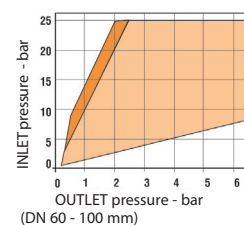
Working principle

• Pressure setting range

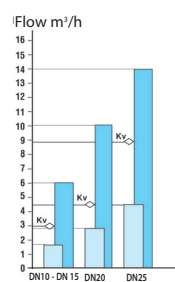


■ NORMAL operating zone

■ Zone requiring a
COMPENSATING SPRING
(10Bis RC)
(Except DN 100)



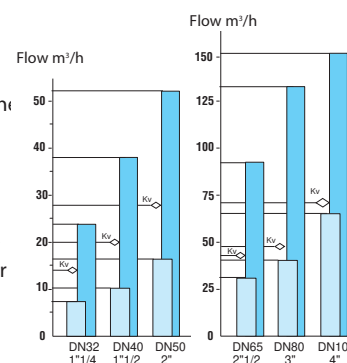
Flow



■ Flow at the velocity used in the
Standard (2 m/s).

■ Maximum flow (at 0 out-
let pressure) for upstream
pressure of 8 bar.

Kv : Flow in m³/h when the outlet
pressure becomes 1 bar lower
than its setting at zero flow.



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