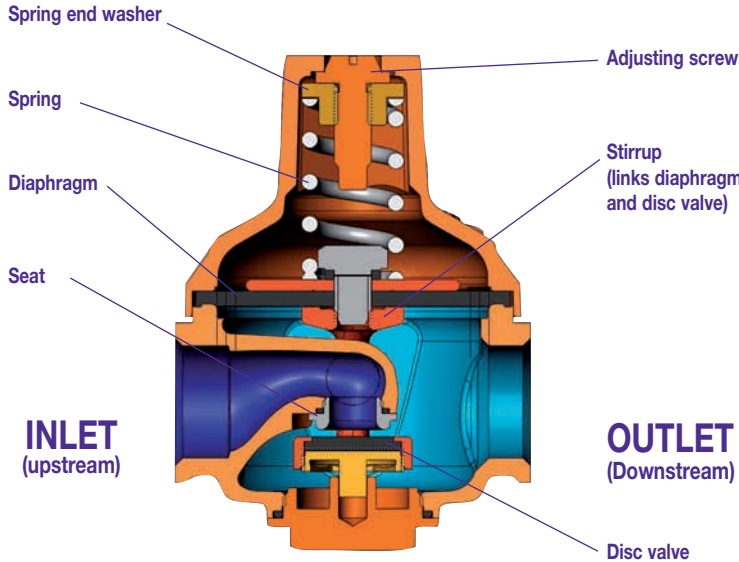




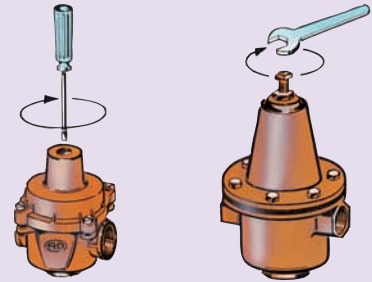
### PRESSURE REDUCING VALVES

All pressure reducing valve bodies are made of bronze. Due to their design, they are **not affected by scale or dirt**, and do not need **any maintenance**. They are suitable for cold and hot water up to 80°C for a maximum upstream pressure of 25 bar and reduce pressure between 0.5 and 7 bar. They can be installed in any position if flow direction stipulated by the arrow is respected. They can be fitted on compressed air, neutral gases and fuel oil at ambient temperature circuits. Consult us for starting DN50 on compressed air and neutral gases applications. The ranges of figures 7, 8, 9, 10 and 11 are in accordance with the **European standard EN1567**. Serie 11 fulfils higher specification controlled by **NF** label. All pressure reducing valve bodies are **guaranteed for 5 years**.

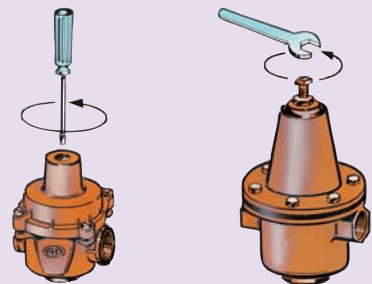


### SETTING THE PRESSURE REDUCING VALVE

To increase downstream pressure :



To decrease downstream pressure :



The outlet pressure acts on the bottom face of the diaphragm, compressing the spring when it exceeds the pre-set value and thus closing the valve.

As long as no water is drawn off the downstream side (no flow condition), the outlet pressure is thus kept at the pre-set value.

When water is drawn off on the downstream side, the outlet pressure decreases and the spring pushes against the diaphragm, opening the valve. Under prolonged flow conditions, a self-damping effect occurs in the valve opening instead of a series of pulsating opening and closing movements.

The DESBORDES pressure **reducing valve** is also a pressure **regulating valve**.

The setting of the Desbordes pressure reducing valve must be operated under no flow condition. Downstream isolating valve must be shut. The static pressure will be adjusted.

**To increase downstream pressure :** tighten adjusting screw (clockwise).

**To decrease downstream pressure :**

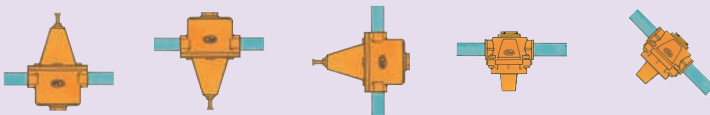
- Slacken the adjusting screw (anticlockwise).

- Release the pressure by slightly opening a tap on the downstream side. Close the tap.

- Tight the adjustment screw again until requested pressure is reached.

A slight pressure drop on the downstream side is normal : it corresponds to the head loss of the valve itself.

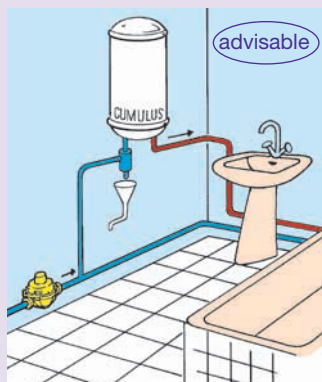
### INSTALLATION



In domestic water supply, the DESBORDES pressure reducing valves are fitted just after the water meter and thus protect the whole installation

If there is a frost risk, they should be drained.

They can be fitted in any position (horizontal, upside down, fluid ascending or reversed and inclined) but the direction of flow indicated by the engraved arrow on the valve body, must be respected.





## FOR WATER DISTRIBUTION DOMESTIC AND INDIVIDUAL

MAXIMUM UPSTREAM PRESSURE 25 bar  $\theta$  80°C

10 : Pressure gauge connection at the bottom of the casing  
10 BIS : With 1/4" plugs on both sides to allow pressure gauge connection

Possibility of assembly of compensating spring (except for 4" size) to obtain settings at 0.5 bar

Setting : from 1 to 7 bar

Delivered unset

CASING : bronze

APPROVALS : ACS

10 - 10BIS : **WRAS**

MAXIMUM UPSTREAM PRESSURE 16 bar  $\theta$  80°C

Flange drilling PN16  
Standard EN1092.

With 1/4" plugs on both sides to allow pressure gauge connection

APPROVAL : ACS

10TER : **WRAS**

## SEA WATER APPLICATIONS VERY AGGRESSIVE WATER

MAXIMUM UPSTREAM PRESSURE 25 bar  $\theta$  80°C

All internal components in Bronze

With 1/4" plugs on both sides to allow pressure gauge connection - Setting : from 1 to 7 bar

APPROVAL : ACS

Manufactured on order only

10

male/male

DN	Ref.	10RC	Ref.
15	149B7000		149B7029
20	149B7001		149B7030
25	149B7002		149B7031

10BIS

female/female

DN	Ref.	10BISRC	Ref.
10	149B7003		149B7019
15	149B7004		149B7020
20	149B7005		149B7021
25	149B7006		149B7022
32	149B7007		149B7023
40	149B7008		149B7024
50	149B7009		149B7025
60	149B7010		149B7026
65	149B7011		149B7027
80	149B7012		149B7028
100	149B7225		-

10TER

With flanges

DN	Ref.	10TERRC	Ref.
32	149B7032		149B7038
40	149B7033		149B7039
50	149B7034		149B7040
60	149B7035		149B7041
65	149B7036		149B7042
80	149B7037		149B7043
100	149B7226		-

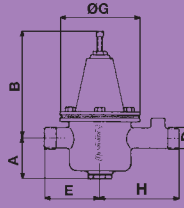
10 BIS BZ

female/female

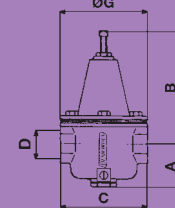
Ref.	DN
149B7013	25
149B7014	32
149B7015	40
149B7016	50
149B7017	65
149B7018	80

## TECHNICAL INFORMATION

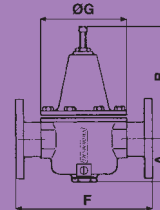
Type 10 male/male



Types 10BIS 10BIS BZ female/female



Type 10TER with flanges

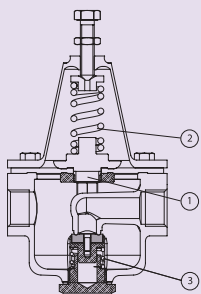


DN	D	A	B	C	E	F	G	H	Kg				
									10	10BIS	10TER	10BISBZ	
10	3/8	12/17	48	120	92	65	-	92	95	1,3	1,25	-	-
15	1/2	15/21	48	120	92	65	-	92	95	1,3	1,25	-	-
20	3/4	20/27	55	130	108	78	-	108	102	1,90	1,75	-	-
25	1	26/34	60	160	123	88	-	123	116	2,6	2,70	-	2,70
32	1 1/4	33/42	77	180	155	-	240	155	-	-	4,80	8,50	4,80
40	1 1/2	40/49	84	205	172	-	260	172	-	-	6,50	10,9	6,50
50	2	50/60	105	235	198	-	288	198	-	-	9,80	14,3	9,80
60	2 1/4	60/70	105	235	198	-	288	198	-	-	9,80	15,4	-
65	2 1/2	66/76	118	270	215	-	305	215	-	-	13,5	21,3	13,5
80	3	80/90	143	300	234	-	330	234	-	-	17,9	27,9	17,9
100	4	102/114	120	350	250	-	385	260	-	-	33,6	50,0	-

## SPARE PARTS

for pressure reducers Ref. 10, 10 BIS and 10 TER

New approvals oblige us to modify the diaphragm and their fixing.



\* The complete stirrup includes : the stirrup, the stirrup plug, the diaphragm, the seal and the counter seat, fully assembled.  
DN100 : membrane (ref. 149F023362)

DN	mm	"	1. Complete stirrup*		2. Setting spring		3. Compensating spring	
			ref.		ref.		ref.	
10	12/17	3/8	149B7045		149B7285		149F025550	
15	15/21	1/2	149B7045		149B7285		149F025550	
20	20/27	3/4	149B7046		149B7286		149B7354	
25	26/34	1	149B7047		149B7287		149F025552	
32	33/42	1 1/4	149B7048		149B7288		149B7356	
40	40/49	1 1/2	149B7049		149B7289		149F025554	
50	50/60	2	149B7050		149B7290		149F025555	
60	60/70	2 1/4	149B7051		149B7290		149F025555	
65	66/76	2 1/2	149B7052		149F025528		149F025556	
80	80/90	3	149B7053		149B7293		149F025557	
100	102/114	4						consult us

## PRESSURE GAUGE NIPPLE

Female/male with 1/4" plug

Casing in bronze

female/male

Ref.	DN
149B7179	1/2 15/21
149B7180	3/4 20/27
149B7181	1 26/34
149B7182	1 1/4 33/42
149B7183	1 1/2 40/49
149B7184	2 50/60
149B7185	2 1/4 60/70
149B7186	2 1/2 66/76
149B7187	3 80/90

## PRESSURE GAUGES

FULL RANGE OF PRESSURE GAUGES WITH CENTERED NEEDLE AND GLYCERINE FILLED

See page 69



### FLATS AND HOUSES INDIVIDUAL WATER SUPPLY

MAXIMUM UPSTREAM PRESSURE **25 bar**  $\theta$  **80°C**

Downstream setting : 1 to 5.5 bar, possibility of assembly of compensating spring to obtain settings at 0.5 bar

With 1/4" plugs on both sides to allow pressure gauge connection

Pre-set at 3 bar

CASING : bronze

SEAT : stainless steel DN 15 and 20

11 : male/male

11 BIS : female/female

11 EP : union-nut/male

APPROVALS : ACS



### 11



male/male

DN	Ref.
15	149B7054
20	149B7055
25	149B7489
32	149B7548
40	149B7567
50	149B7565

11RC

Ref.
149B7068
149B7069



### 11BIS



female/female

DN	Ref.
15*	149B7056
20*	149B7057
25	149B7314
32	149B7549
40	149B7558
50	149B7561

11BIS RC

Ref.
149B7063
149B7064



### 11EP

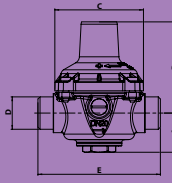


female/male

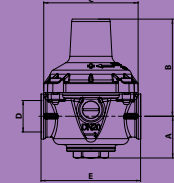
DN	Ref.
20	149B7511

### TECHNICAL INFORMATION

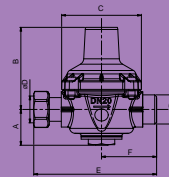
Type 11  
male/male



Type 11BIS  
female/female



DN	D		A	B	C	E	E	kg	kg
	mm	"							
15	15/21	1/2	31	60	59	85	66	0,70	0,70
20	20/27	3/4	32	75	73	100	76,5	0,90	0,90
25	26/34	1	40	102	94	122	98	2,00	1,90
32	33/42	1 1/4	51	179	104	132	126	3,90	3,90
40	40/49	1 1/2	46	185	104	132	132	5,00	4,20
50	50/60	2	54	194	104	146	146	5,30	5,20



Type 11EP  
female/male

DN	D	A	B	E	F	C	kg	
	mm	"	mm	mm	mm	mm		
20	20/27	3/4	31	75	112	50	73	0,88

### FLATS AND HOUSES INDIVIDUAL WATER SUPPLY

MAXIMUM UPSTREAM PRESSURE **25 bar**  $\theta$  **80°C**

Settings : from 1 bar to 5.5 bar

Delivered pre-set at 3 bar

Equipped with 2 plugs 1/4" on each side to allow the mounting of a pressure gauge and 2 fittings removables

CASING : bronze

COVER :

DN15 to 25, composite material  
DN32 to 50, bronze

SEAT : stainless steel

APPROVAL : ACS



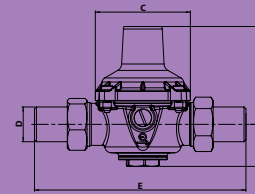
### 11 DO



male/male

DN	Ref.
15	149B7217
20	149B7218
25	149B7228
32	149B7550
40	149B7559
50	149B7562

### TECHNICAL INFORMATION



Type 11DO  
male/male

DN	D		A	B	C	E	kg
	mm	"					
15	15/21	1/2	31	60	59	140	0,90
20	20/27	3/4	32	75	73	160	1,30
25	26/34	1	40	102	94	180	2,50
32	33/42	1 1/4	51	179	104	200	4,60
40	40/49	1 1/2	46	185	104	220	5,00
50	50/60	2	54	194	104	250	5,50

### VERY LOW PRESSURE, AGRICULTURE, IRRIGATION, LABORATORY

MAXIMUM UPSTREAM PRESSURE **10 bar**  $\theta$  **80°C**

Settings : from 0.1 bar to 0.6 bar

With 1/4" plugs on both sides to allow pressure gauge connection

Table of flow available on request

CASING : bronze

SEAT : stainless steel

APPROVAL : ACS



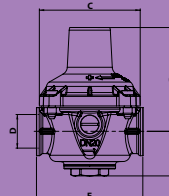
### 11BIS RCBP



female/female

DN	Ref.
20	149B7065

### TECHNICAL INFORMATION



Type 11BIS RCBP  
female/female

DN	D		A	B	C	E	kg
	mm	"					
20	20/27	3/4	32	75	73	76,5	0,92



**MULTI 7**

**FLATS AND HOUSES  
INDIVIDUAL WATER SUPPLY**

MAXIMUM UPSTREAM PRESSURE **16 bar**  $\theta$  **80°C**  
1/4" pressure gauge connection and drain at the bottom of the casing  
Downstream setting : 1 to 5.5 bar (pre-set at 3 bar)  
CASING : Bronze  
Delivered with 3 nuts allowing 16 different connecting possibilities in 1/2" and 3/4"

**MULTI 7**

**multi connections**

Ref.	DN
149B7540	20

APPROVAL : ACS

**TECHNICAL INFORMATION**

Type MULTI 7 multi connections

DN	D	A	B	C	G
20	20/27 3/4	33	61	70	57

**JUNIOR**

**FLATS AND HOUSES  
INDIVIDUAL WATER SUPPLY**

MAXIMUM UPSTREAM PRESSURE **16 bar**  $\theta$  **80°C**  
1/4" pressure gauge connection and drain at the bottom of the casing  
Downstream setting : 1 to 5.5 bar  
Possibility to set-up pre-set at 3 bar downstream  
CASING : bronze  
APPROVAL : ACS  
7BIS : female/female  
7EP : union-nut/male  
7SP : male/union-nut

**7BIS**

**female/female**

Ref.	DN
149B7209	15
149B7210	20
149B7552	25
149B7553	32
149B7554	40
149B7555	50

**TECHNICAL INFORMATION**

Type 7BIS female/female    Type 7EP female/male    Type 7SP male/female

D	DN	A	B	C	E	F	G	H	Kg 7BIS	Kg 7EP	Kg 7SP
15	15/21 1/2	30	56	64,5	92	3/4	50	-	0,5	0,5	-
20	20/27 3/4	33,5	61	70	95	3/4	57	3/4	0,6	0,8	0,8
25	26/34 1	30	68	81	-	-	70	-	0,95	-	-
32	33/42 1 1/4	34,5	91	97	-	-	81	-	1,55	-	-
40	40/49 1 1/2	36,5	106	110	-	-	92	-	2,05	-	-
50	50/60 2	45,5	106	135	-	-	120	-	3,70	-	-

**7EP**

**female/male**

Ref.	DN
149B7211	15
149B7212	20

**7SP**

**male/female**

Ref.	DN
149B7248	20

**SECURO**

**PROTECTION OF INDIVIDUAL DEVICE,  
WATER HEATER**

MAXIMUM UPSTREAM PRESSURE **16 bar**  $\theta$  **80°C**  
1/4" pressure gauge connection and drain at the bottom of the casing  
Downstream setting : 1 to 5.5 bar  
Possibility to set-up pre-set at 3 bar downstream  
CASING : chrome plated bronze  
Upstream connection : male, downstream : with union nut  
APPROVAL : ACS

**5 SP**

**male/female**

Ref.	DN
149B7312	20

**TECHNICAL INFORMATION**

Type 5 SP male/female

DN	D	A	B	C	E	kg
20	20/27 3/4	29	58	82	50	0,4

**REDUNEUF**

**WATER SUPPLY OF HOUSE BLOCKS,  
COLLECTIVE HOUSING**

MAXIMUM UPSTREAM PRESSURE **25 bar**  $\theta$  **80°C**  
Non-adjustable set at 3 bar  
With 1/4" plugs on both sides to allow pressure gauge connection  
CASING : bronze  
Seat in stainless steel  
APPROVALS : **NF** ACS

**9**

**male/male**

Ref.	DN
149B7219	15
149B7220	20
149B7221	25

**TECHNICAL INFORMATION**

Type 9 male/male    Type 9BIS female/female

DN	D	A	B	E	C	G	kg 9	kg 9 BIS
15	15/21 1/2	31	53	66	85	59	0,55	0,56
20	20/27 3/4	31	59	76,5	100	73	0,78	0,84
25	26/34 1	43	66	98	122	94	1,45	1,54

**9BIS**

**female/female**

Ref.	DN
149B7222	15
149B7223	20
149B7224	25

REGULATION