

# IO

Antipollution insert checkvalve - EB type  
System 01

## Technical Data Sheet



## Description

IO check valves are compliant with the regulation of NF Antipollution brand.

According to the NF EN 1717, these EB type checkvalves, are incorporated in a device, and guarantee the protection of drinking water against a risk of pollution from a fluid of category 2.

- Minimum head loss
- Noiseless operation due to a split obturator
- Does not generate hammering
- Easy incorporation due to an already mounted O'ring
- Axial guidance obturator with return spring
- Absolute sealing at high or low back pressure ensured by an especially designed lip-seal
- Meets the requirements of all europeans approvals



W-WATTS OCEAN

## IO

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C	DN "	PFA in bar	PS in bar				Cat.	Ref.	Weight Kg
			L1	L2	G1	G2			
15	1/2	10	10	10	10	10	4.3	<b>149B040135</b>	0,0016
20	3/4	10	10	10	10	10	4.3	<b>149B040136</b>	0,0032
25	1	10	10	10	10	10	4.3	<b>149B040137</b>	0,0075
32	1 1/4	10	10	10	0,5	10	4.3	<b>149B040138</b>	0,0136
40	1 1/2	10	10	10	0,5	10	4.3	<b>149B040139</b>	0,0235
50	2	10	10	10	0,5	10	4.3	<b>149B040140</b>	0,0475

### Important notice :

The temperature and pressure indications given for the various categories of fluids (L1/L2/G1/G2) are under no circumstances a guarantee that they are suitable for your system. Therefore, it is essential to validate the use of the products under given operating conditions with our technical department.

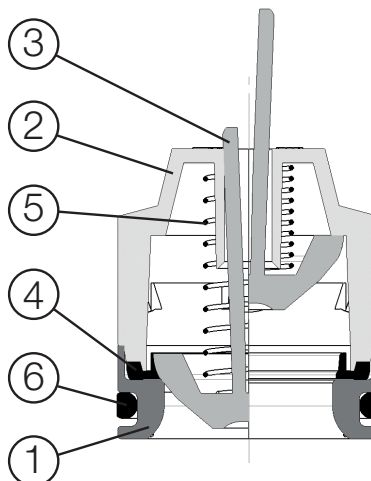
In addition, the operating instructions are available on our website [www.socla.com](http://www.socla.com) or by simply asking our sales department.

### Technical features

Operation temperatures	Continuous -10°C up to 65°C / Maxi. : 85°C (in case of an accidental peak during 1h)
Permissible operating pressure (PFA) in water	See table above
Maximum permissible pressure (PS) other mediums	See table above
Connection	Incorporation in a device
Mediums	Clear liquids, drinking water, neutral gaz

### Nomenclature and materials

N°	Description	Materials
1	Body	POM (Polyacetal)
2	Guide	POM (polyacetal)
3	Obturator	POM (polyacetal)
4	Seal	EPDM
5	Spring	Stainless steel
6	O'ring	EPDM



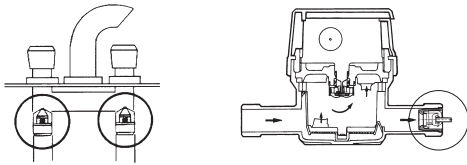
## Approvals



### International Construction Standards :

Specific NF brand regulation (technical doc. n°6 : antipollution checkvalve)  
NF EN 13959

## Application



IO checkvalves are incorporating in :

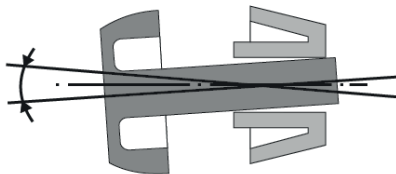
- Sanitary taps (kitchen, bathroom etc..)
- Thermostatic mixing valve
- Water meter
- Multi-zones heating system
- Booster pump
- Chemical fluid injection in exhaust duct
- EA,BA,CA protection devices
- etc...

## Functioning

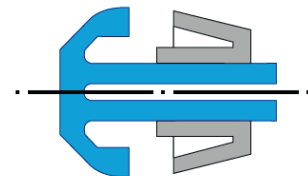
Some vibrations can occur at low flow rates. These vibrations are generated by possible lateral movements of the valve. Until now it was impossible to avoid this effect without affected hydraulic characteristics.

Thanks to the unique guide system by slotted stem that eliminates the possibility of movements and optimal hydraulic profile, vibration are eliminated.

By providing this guidance without the possibility of movements avoids calcareous deposits and vibration, ensuring a flowless and quiet operation for years.



**Classic obturator guidance**

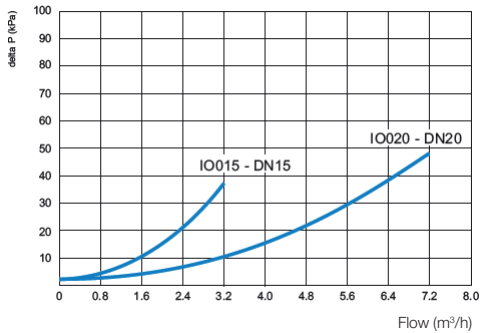


**WATTS obturator guidance**

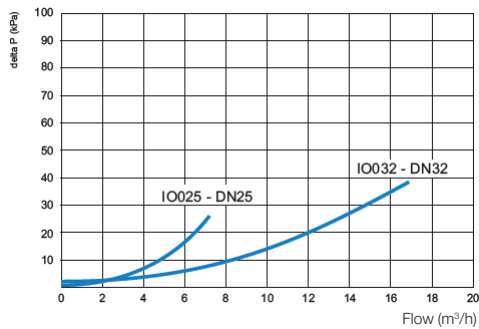
# Operation

## IO - Headloss chart

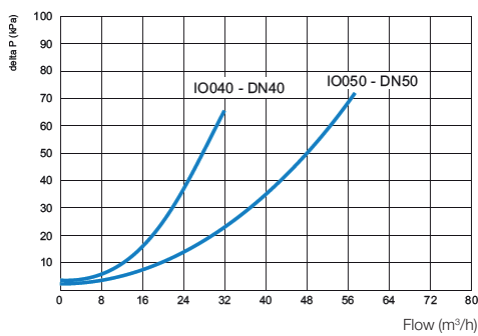
Pressure loss-curve



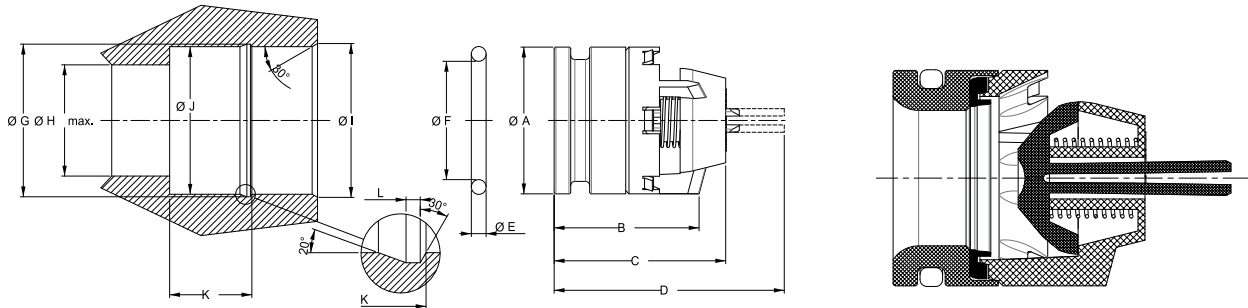
Pressure loss-curve



Pressure loss-curve



# Sizing



Ref.	DN	ØA	B	C	D	ØE	ØF	ØG	ØH	I	ØJ	K	L
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
149B040135	15	15,18 <sub>-0,05</sub>	13,4 ±0,4	16,4 ±0,5	23,9 ±0,5	1,5	12	15,8 ±0,1	11,5 <sub>-0,1</sub>	16,1 <sub>-0,1</sub>	15,2 <sub>0</sub> <sup>+0,1</sup>	8,4 <sub>0</sub> <sup>+0,3</sup>	0,2 <sub>0</sub> <sup>+0,2</sup>
149B040136	20	19,78 <sub>-0,05</sub>	16,8 ±0,4	21,9 ±0,5	32,4 ±0,5	2,0	16	20,6 ±0,1	15,2 <sub>-0,1</sub>	21,1 <sub>-0,1</sub>	19,8 <sub>0</sub> <sup>+0,1</sup>	10,8 <sub>0</sub> <sup>+0,1</sup>	0,4 <sub>0</sub> <sup>+0,2</sup>
149B040137	25	24,90 <sub>-0,07</sub>	24,3 ±0,4	28,8 ±0,5	38,7 ±0,5	2,5	20	25,8 ±0,1	18,8 <sub>-0,1</sub>	26,0 <sub>-0,1</sub>	24,95 <sub>0</sub> <sup>+0,1</sup>	16,7 <sub>0</sub> <sup>+0,3</sup>	0,6 <sub>0</sub> <sup>+0,2</sup>
149B040138	32	31,70 ±0,07	26,75 ±0,4	34,45 ±0,5	51,45 ±0,5	2,95	26,61	32,9 ±0,1	24,2 <sub>-0,1</sub>	33,1 <sub>-0,1</sub>	31,90 <sub>0</sub> <sup>+0,1</sup>	17,0 <sub>0</sub> <sup>+0,3</sup>	0,8 <sub>0</sub> <sup>+0,2</sup>
149B040139	40	39,30 ±0,10	33,40 ±0,4	40,75 ±0,5	61,15 ±0,5	3,53	32,92	41,2 ±0,1	30,1 <sub>-0,1</sub>	41,1 <sub>-0,1</sub>	39,5 <sub>0</sub> <sup>+0,1</sup>	20,15 <sub>0</sub> <sup>+0,3</sup>	1,0 <sub>0</sub> <sup>+0,2</sup>
149B040140	50	49,40 ±0,10	45,80 ±0,4	54,10 ±0,5	75,3 ±0,5	4,0	42	51,9 ±0,1	37,7 <sub>-0,1</sub>	51,1 <sub>-0,1</sub>	49,6 <sub>0</sub> <sup>+0,1</sup>	24,3 <sub>0</sub> <sup>+0,3</sup>	1,2 <sub>0</sub> <sup>+0,2</sup>

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A WATTS Brand

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