



# NR-010 PN 10 / PN 16



## Wafer Style Check Valve

### Description

The NR-010 Check Valve prevents the return flow of water to its source and provides quiet closure and total sealing of the sealing face. It has a quick, spring-assisted closure that minimizes the possibility of water hammer and is designed for free flow of water without interference and with minimal head loss.

The check valve is compatible for installation on pipelines with horizontal pumps or boosters. The check valve is made from composite materials to withstand highly abrasive conditions and to ensure long-term service in corrosive liquid environments such as seawater, brine and chlorine water.

### Applications

- After pumps/boosters
- Filtration systems
- Swimming pools (additional modifications are required for this application)
- Fertilizer system

### Main Features

- Working pressures: Up to 10 bar, 16 bar
- Minimum working pressure: 0.2 bar.
- Maximum working temperature: 60°C.
- The body of the valve is made from composite materials.

#### NR-010 1½", 2"

- Female threaded BSPT of NPT for easy and secure connection to the pipeline.
- Removable cover allows for easy cleaning, maintenance and seal replacement without removing the valve from the pipeline.

#### NR-010 3" – 10"

The valve connects between flanges.

The valve is supplied together with seals for flanges.

The spring assembly mechanism is outside of the flow cross-section and can be replaced without removing the valve from the line.

### Valve Selection

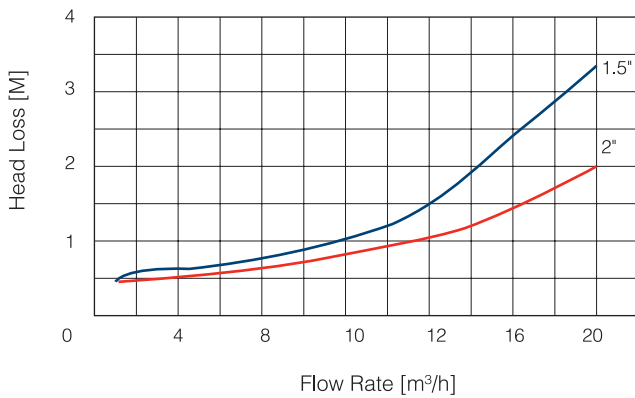
- The NR-010 is available in diameter sizes 10 bar - 1.5" - 10" 16 bar - 1.5" - 8"
- The valve is available with a limit switch that transmits a contact signal upon the start of flow or its discontinuance (pump safety mechanism), Model NR-010-LS.
- The valve (1.5", 2") is available with up to four 1/8" side ports for measuring pressure/ pressure release cocks / command lines for external controls.
- The valve is available with a strainer added as Check Valve Model NR-010-FV (foot valve).(3"-10").

### Note

For best suitability, it is recommended to send the fluid chemical properties along with the valve request.

Upon ordering, please specify: model, size, working pressure, thread and flange standard and type of liquid.

## HEAD LOSS



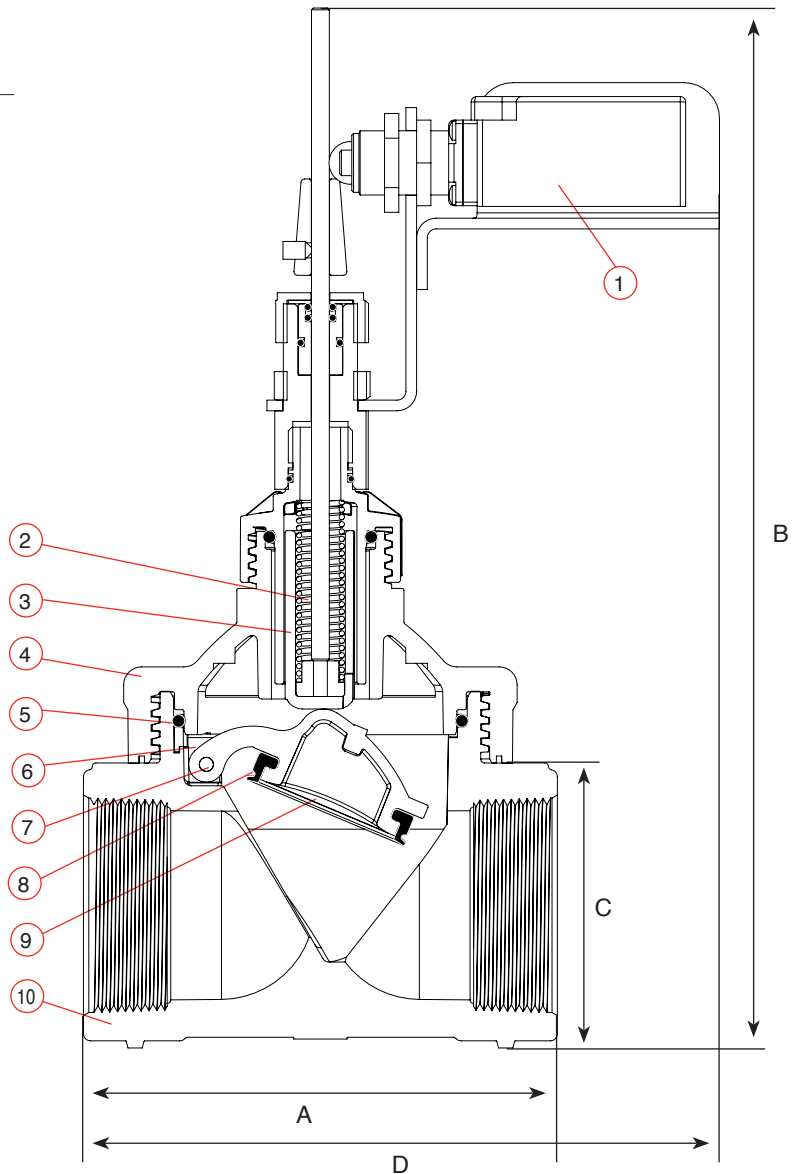
## DIMENSIONS AND WEIGHTS

Nominal Size	Dimensions mm				Weight Gr.
	A	B	C	D	
NR -010 1½"	133	149	65	180	605
NR -010 LS 1½"	133	285	65	180	1050
NR-010 2"	133	157	80	180	620
NR-010 LS 2"	133	291	80	180	1070

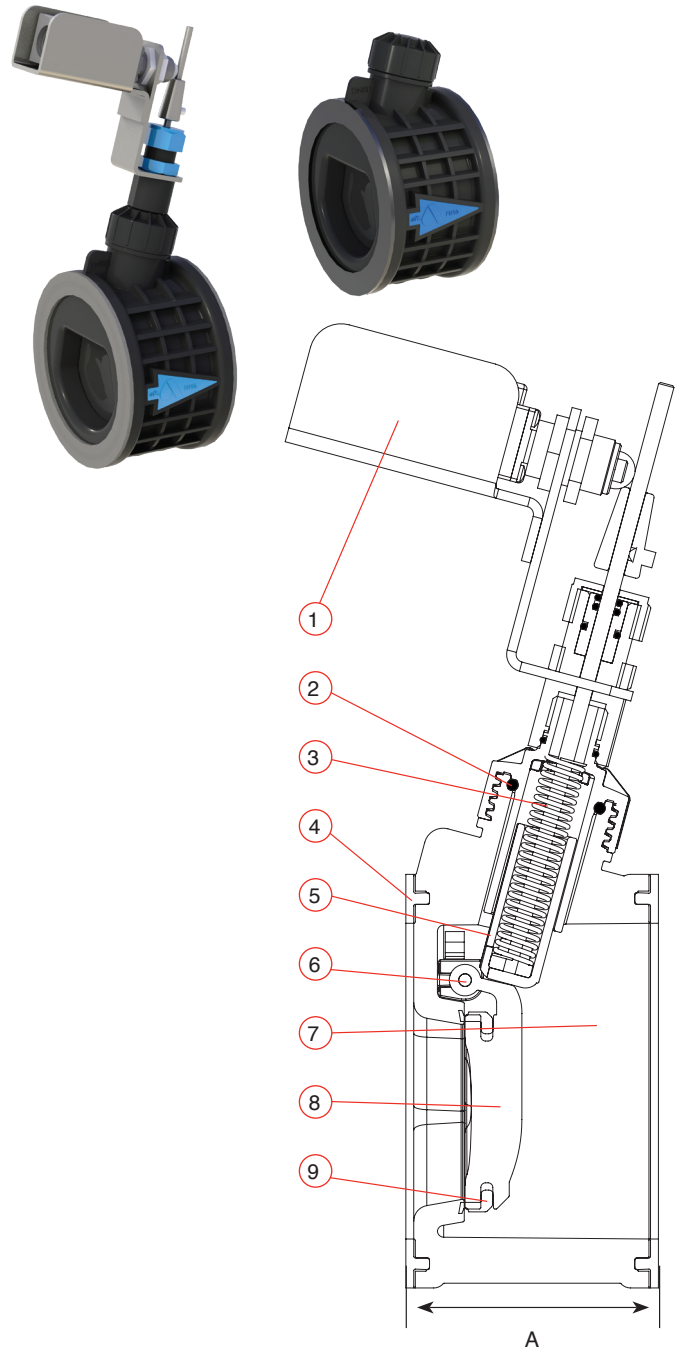
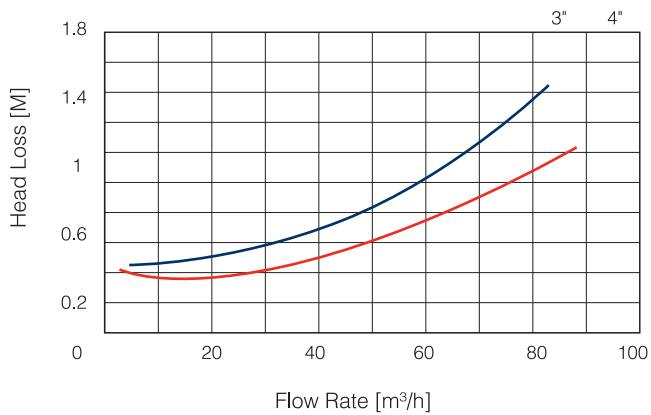
For determining the height of a check valve with a limit switch, add an additional space of 2 - 3 cm.

## PARTS LIST AND SPECIFICATION

No.	Part	Material
1.	Limit Switch Assembly	
2.	Spring	Stainless Steel 302
3.	Spring Housing	Acetal
4.	Cover	Reinforced Nylon
5.	O-Ring	BUNA-N
6.	Shaft Housing	Acetal
7.	Shaft	Stainless Steel 316
8.	Seal	EPDM
9.	Disc	Reinforced Nylon
10.	Body	Reinforced Nylon



## HEAD LOSS

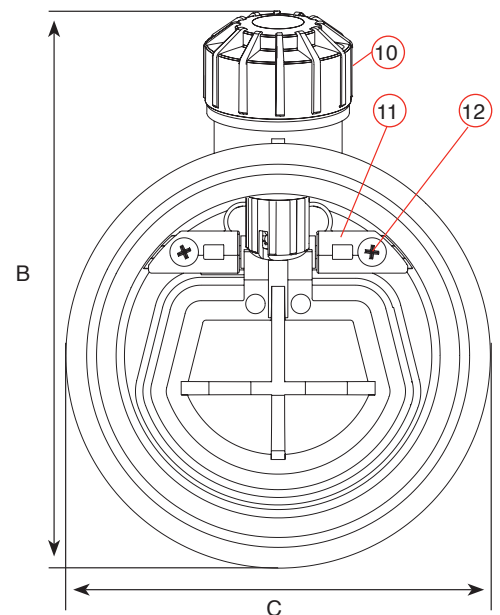


## PARTS LIST AND SPECIFICATION

No.	Part	Material
1.	Limit Switch Assembly	
2.	O-Ring	BUNA-N
3.	Spring	Stainless Steel 302
4.	Flange Seals	EPDM
5.	Spring Housing	Acetal
6.	Shaft	Stainless Steel 316
7.	Body	Reinforced Nylon
8.	Disc	Reinforced Nylon
9.	Seal	EPDM
10.	Spring Cover	Reinforced Nylon
11.	Shaft Housing	Acetal
12.	Bolt (x2)	Stainless Steel 316

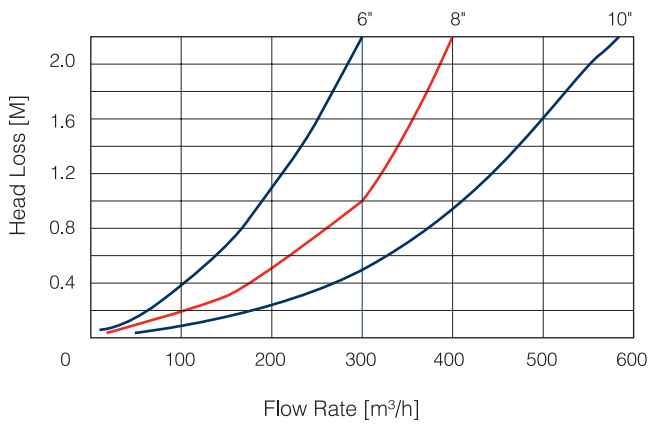
## DIMENSIONS AND WEIGHTS

Nominal Size	Dimensions mm			Weight Gr.
	A	B	C	
NR -010 3"	80	172	131	571
NR -010 LS 3"	80	305	131	1070
NR-010 4"	91	191	151	732
NR-010 LS 4"	91	324	151	1250



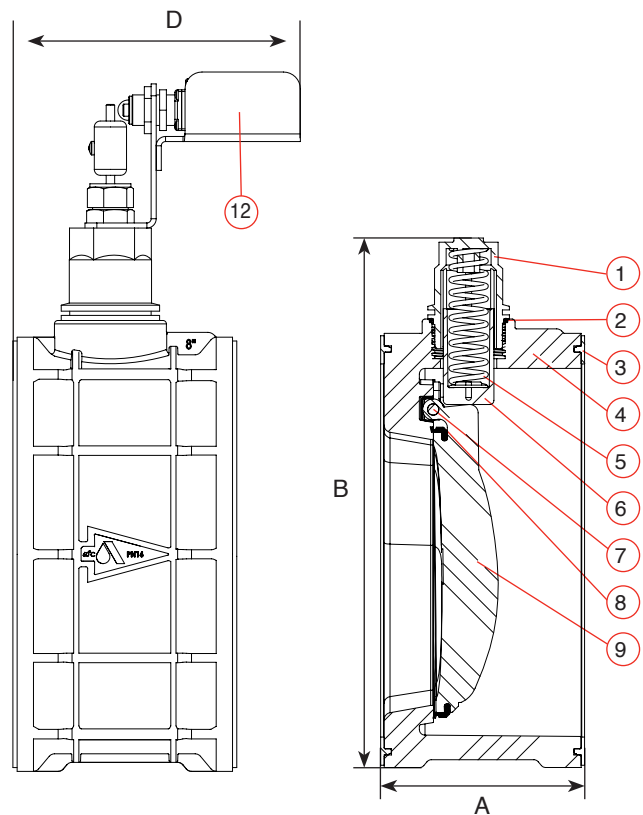
For determining the height of a check valve with a limit switch, add an additional space of 2 - 3 cm.

## HEAD LOSS



## PARTS LIST AND SPECIFICATION

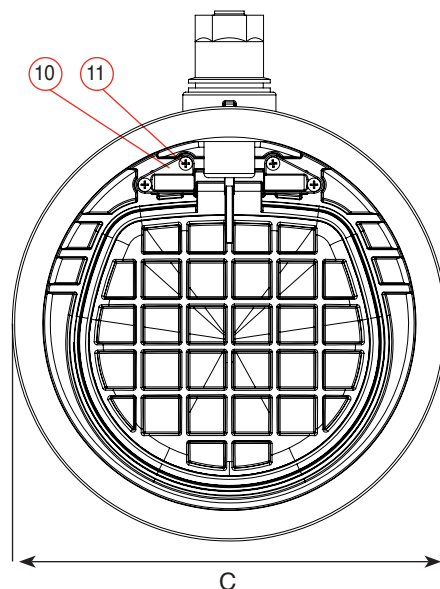
No.	Part	Material
1.	Spring Cover	Reinforced Nylon
2.	O-Ring	BUNA-N
3.	Flange Seals	EPDM
4.	Body	Reinforced Nylon
5.	Spring	Stainless Steel 302
6.	Spring Housing	Acetal
7.	Shaft	Stainless Steel 316
8.	Flap Seal	EPDM
9.	Flap	Reinforced Nylon
10.	Shaft Housing	Acetal
11.	Bolt (x2)	Stainless Steel 316
12.	Limit Switch Assembly	



## DIMENSIONS AND WEIGHTS

Nominal Size	Dimensions mm				Weight Kg.
	A	B	C	D	
6"	112	291	220	112	2.6
LS 6"	112	380	220	162	3.1
8"	132	323	259	132	3.7
LS 8"	132	413	259	170	3.8
10"	145	376	310	145	5.2
LS 10"	145	465	310	175	5.7

For determining the height of a check valve with a limit switch, add an additional space of 2 - 3 cm.

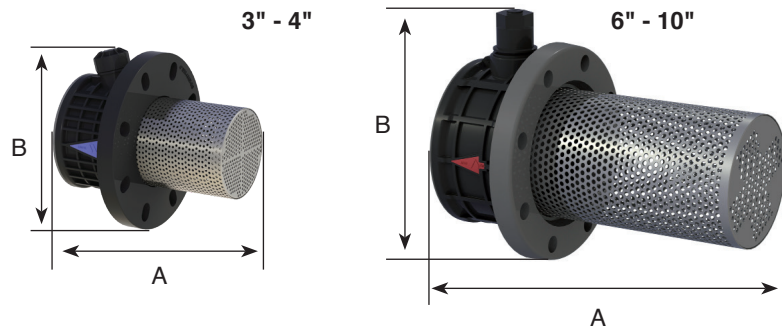


## Wafer Style Check Valve - Foot Valve

The NR-010 line of Foot Valves is a one-way or anti-siphon valve with a filtration net. The valve is installed on the pick-up end of the water pipe near the bottom of the well or at the bottom of a pump station suction pipe. The NR-010 Foot Valve prevents water from flowing backwards out of the jet pump and well piping back into the well when the jet pump stops operating.

### DIMENSIONS AND WEIGHTS

Nominal Size	Dimensions mm		Weight Kg.
	A	B	
3"	204	226	1.3
4"	231	286	2.0
6"	414	324	5.5
8"	575	365	8.0
10"	688	427	11.0



### Foot Valve Screen Dimensions

Nominal Size	3"	4"	6"	8"	8"	10"	10"
Screen Hole Dia. (mm)	3	3	3	3	6	3	6
Screen Area (mm <sup>2</sup> )	41684	60936	118771	153311	153311	204905	204905
Screen Open Area (mm <sup>2</sup> )	33%	33%	33%	33%	62%	35%	62%
	13756	20109	39194	50592	95053	71717	127041
Inlet Passage Area (mm <sup>2</sup> )	3249	5315	13449	19410	19410	31934	31934
Ratio Screen Passage Area / Inlet Passage Area	4.2	3.8	2.9	2.6	4.9	2.2	4.0
Inlet Passage Area for Nominal Dia. (mm <sup>2</sup> )	4416	7850	17663	31400	31400	49063	49063
Ratio Nominal Inlet Screen Passage / Area	3.1	2.6	2.2	1.6	3.0	1.5	2.6