

# A.R.I. NR-010



Irrigation

## Wafer Style Check Valve

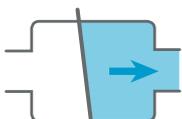
### Description

A.R.I. NR-010 Check Valve allows for one-directional flow, preventing the return flow of the liquid to its source and provides quiet closure and total sealing of the sealing face.

### Installation

- Downstream of pumps and boosters
- Irrigation systems
- Fertigation systems
- On intake suction pipe
- Reservoirs

### Operation



One Way

## Features and Benefits

UV resistant polymers, reinforced and rubber materials	Corrosion and scale resistant, long working life
Quick, spring-assisted closure	Water hammer mitigation
Specially chosen materials	Withstands highly abrasive conditions, long-term service in corrosive liquid environments
1 ½", 2" models - removable cover	Easy cleaning, maintenance and seal replacement without need to remove from the pipeline
3" - 10" models - spring assembly mechanism outside the flow	Easily maintained without need to remove from the pipeline

## Technical Specifications

Size range	1½", 2" female threaded - BSPT / NPT 3" - 10" between flanges
Working pressure range	0.2 - 10 bar (sizes 1½" - 10") 0.2 - 16 bar (sizes 1½" - 8")
Temperature	Maximum working temperature: 60° C

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

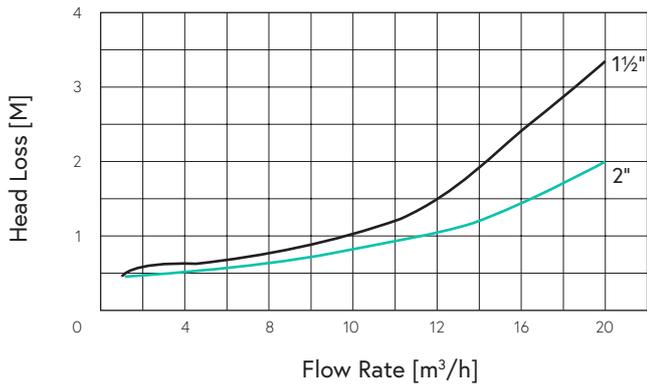
Upon ordering, please specify: model, size, working pressure, thread/flange standard and type of liquid.

## Valve Selection Options

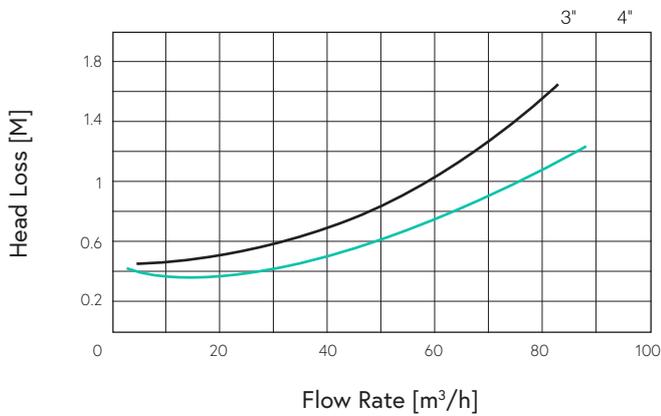
- Manufactured according to any standard flange requirement
- Limit switch add-on
- 1½", 2" model - up to four 1/8" side ports for measuring pressure / pressure release cocks / command lines for external controls
- NR-010-LS - limit switch transmits a contact signal at start or stop of flow
- NR-010-FV – foot valve with screen (3"-10")

## Head Loss

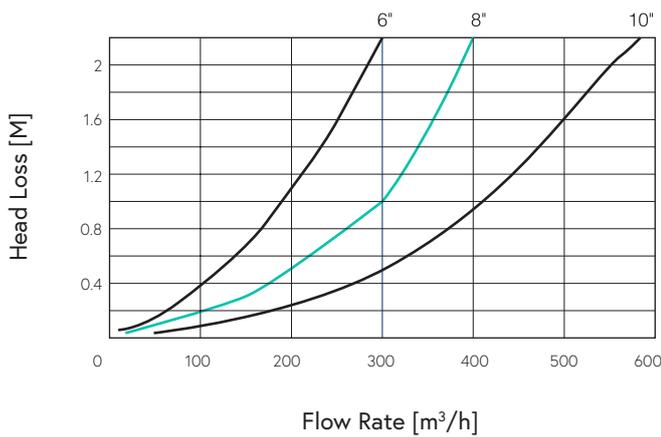
### NR-010 1½", 2"



### NR-010 3", 4"

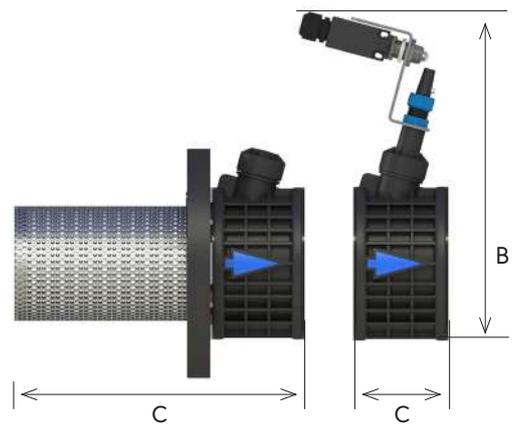
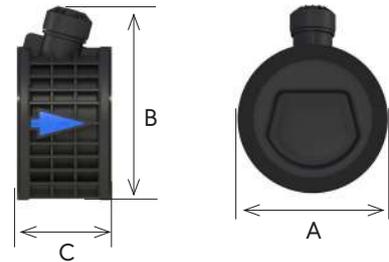
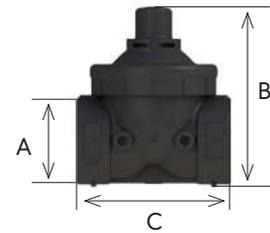


### NR-010 6", 8", 10"



## Dimensions and Weight

Model	Dimensions (mm)			Weight (kg)
	A	B	C	
A.R.I. NR-010 1 1/2"	65	149	133	0.63
A.R.I. NR-010 LS 1 1/2"	65	258	133	0.89
A.R.I. NR-010 FV 1 1/2"	65	149	225	0.95
A.R.I. NR-010 2"	76	157	133	0.65
A.R.I. NR-010 LS 2"	76	267	133	0.92
A.R.I. NR-010 FV 2"	76	157	267	1.0
A.R.I. NR-010 3"	131	172	80	0.66
A.R.I. NR-010 LS 3"	131	308	80	0.77
A.R.I. NR-010 FV 3"	207	207	226	1.3
A.R.I. NR-010 4"	151	190	90	0.9
A.R.I. NR-010 LS 4"	151	325	90	1.17
A.R.I. NR-010 FV 4"	233	233	286	2.17
A.R.I. NR-010 6"	220	291	107	2.6
A.R.I. NR-010 LS 6"	220	380	107	3
A.R.I. NR-010 FV 6"	324	324	414	5.5
A.R.I. NR-010 8"	256	323	132	3.7
A.R.I. NR-010 LS 8"	256	415	132	3.8
A.R.I. NR-010 FV 8"	340	365	575	8
A.R.I. NR-010 10"	308	399	145	5.2
A.R.I. NR-010 LS 10"	308	465	145	5.7
A.R.I. NR-010 FV 10"	410	425	688	11



### NOTE

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

All product weights and dimensions are approximate, due to the differences in flange standards, materials and variable accessories.

## Parts List and Specifications | 1½" 2"

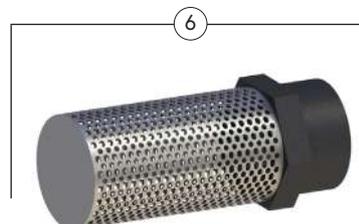
	Part	Material
1	Model A.R.I. NR-010 LS	
	Limit Switch Assembly	Reinforced Nylon + Acetal + Stainless Steel 316
	O-ring	NBR
2	Cover	Reinforced Nylon
3	Spring	SAE 302
	Spring Housing	Acetal
4	Disk Assembly	
	Disk	Reinforced Nylon
	Seal	EPDM
	Shaft	Stainless Steel 316
5	Body Assembly	
	Body	Reinforced Nylon
	O-ring	NBR
6	Model A.R.I. NR-010 FV	
	Foot Valve Assembly	Reinforced Nylon + Stainless Steel 316



Model NR-010 FV



Model NR-010 LS



## Parts List and Specifications | 3" 4"

	Part	Material
1	Model A.R.I. NR-010 LS	
	Limit Switch Assembly	Reinforced Nylon + Acetal + Stainless Steel 316
2	Spring	SAE 302
	Spring Housing	Acetal
3	Flap Assembly	
	Flap	Reinforced Nylon + Stainless Steel 316
	Flap Seal	EPDM
4	Body Assembly	
	Body Seal	EPDM
	Body	Reinforced Nylon
	O-ring	NBR
	Body Seal	EPDM
5	Model A.R.I. NR-010 FV	
	Screen	Stainless Steel 316
	Flange	Reinforced Nylon



Model NR-010 FV



Model NR-010 LS



## Parts List and Specifications | 6" 8"

	Part	Material
1	Model A.R.I. NR-010 LS	
	Limit Switch Assembly	Reinforced Nylon + Acetal + Stainless Steel 316
2	Spring	SAE 302
	Spring Housing	Acetal
3	Flap Assembly	
	Flap	Reinforced Nylon + Stainless Steel 316
	Flap Seal	EPDM
4	Body Assembly	
	Body Seal	EPDM
	Body	Reinforced Nylon
	O-ring	NBR
	Body Seal	EPDM
5	Model A.R.I. NR-010 FV	
	Screen	Stainless Steel 316
	Flange	PVC



Model NR-010 FV



Model NR-010 LS



## ➤ Wafer Style Check Valve - Foot Valve

The A.R.I. NR-010 line of Foot Valves is a non-return spring-loaded check valve with a perforated screen.

The valve is installed on the intake suction pipe below the water level, maintaining a full suction pipe.

Such an installation is essential in pumps that intake from a lower water level when the pump does not include a self-priming mechanism, which saves the need to operate vacuum pumps for pump start up.



## ➤ 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
Screen Length (mm)	145	195	300	440	440	540	540
Screen Diameter (mm)	90	115	170	210	210	295	295