

A.R.I. NR-010



Waterworks

Wafer Style Check Valve

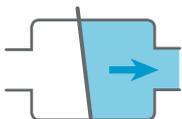
Description

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
- Filtration systems
- Swimming pools (additional modifications required)
- Municipal water conveyance systems

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 |

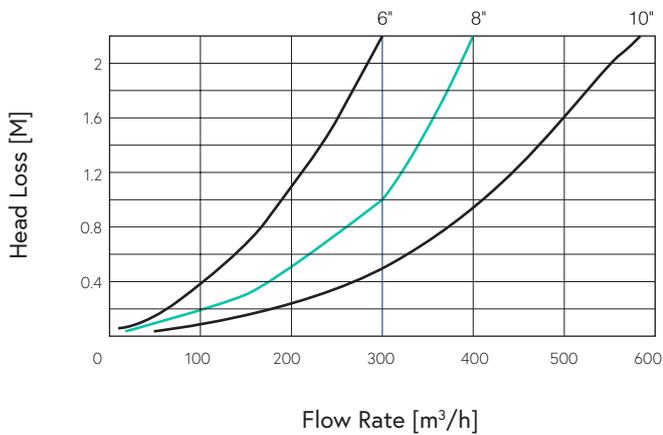
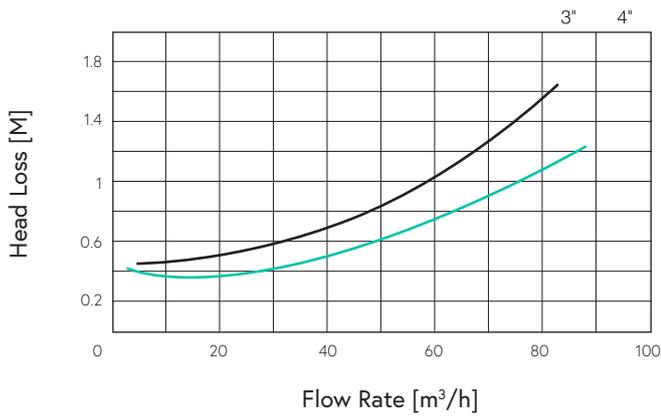
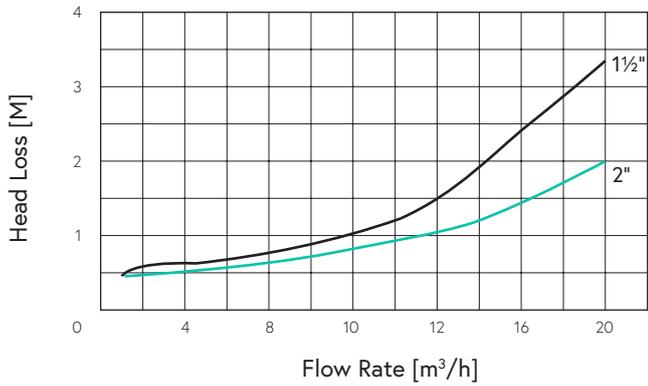
For best suitability, it is recommended to send the fluid chemical properties along with the valve request.

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

Valve Selection Options

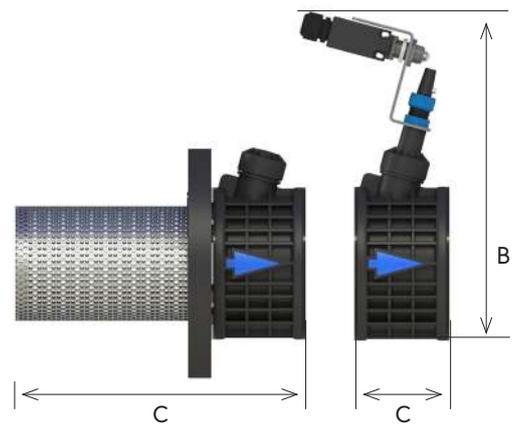
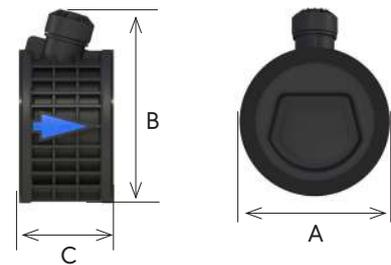
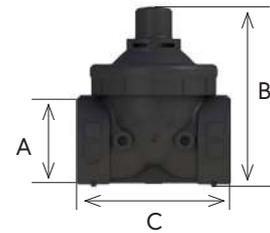
- Manufactured according to any standard flange requirement
- Limit switch add-on
- 1½", 2" model - up to four 1/8" side ports for measuring pressure / pressure release cocks / command lines for external controls
- NR-010-LS - limit switch transmits a contact signal at start or stop of flow
- NR-010-FV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

Head Loss



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"

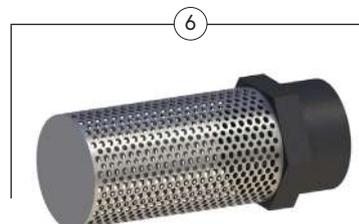
| | Part | Material |
|---|------------------------|---|
| 1 | Model A.R.I. NR-010 LS | |
| | Limit Switch Assembly | Reinforced Nylon + Acetal + Stainless Steel 316 |
| | O-ring | NBR |
| 2 | Cover | Reinforced Nylon |
| 3 | Spring | SAE 302 |
| | Spring Housing | Acetal |
| 4 | Disk Assembly | |
| | 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

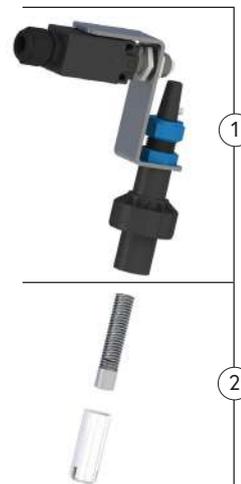


Parts List and Specifications | 3" 4"

| | 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 ²) | 41684 | 60936 | 118771 | 153311 | 153311 | 204905 | 204905 |
| Screen Open Area (mm ²) | 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 |