

A.R.I. S-050

 **Aquestia**
Directing the Flow



Waterworks

Automatic Air Release Valve Series

Description

A.R.I. S-050 is an Automatic Air Release Valve Series that releases accumulated air from a pressurized system, to optimize pipeline hydraulic efficiency by reducing head losses and improving flow.

Installation




- On pumps
- On liquid transmission pipelines
- After filters & pressure reducers

Operation



Automatic Air Release

Features and Benefits

Rolling seal	Leak-free sealing over a wide range of pressure differentials
One-size orifice	Covers a wide pressure range (up to 25 bar)
Nylon strainer	Prevents plugging from debris
Construction materials	UV resistant, non-corrosive and durable
Lightweight, small dimensions	Easily installed, even on polymeric piping systems, simple to maintain
Unique body and float design	Seals at very low pressure A.R.I. (S-050 L)
Continual air gap	Separates the liquid from the sealing mechanism (A.R.I. S-050 L)
 ATEX certified air valves	ATEX certified air valves are optional by customer request. Certification is conditional upon the customer connecting the designated part on the product to a dedicated ground connection point
 NSF/ANSI/CAN 61 certified & listed	For drinking water system component
 NSF/ANSI 372 certified & listed	Conforms with lead content requirements for "lead-free" plumbing

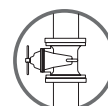
Technical Specifications

Size range	1/2" 3/4" 1"
Working pressure range	A.R.I. S-050 A.R.I. S-050 C 0.1 - 10 bar (PN10) A.R.I. S-050 L 0.02 - 10 bar (PN10) A.R.I. S-050 A.R.I. S-050 C 0.2 - 16 bar (PN16) A.R.I. S-050 L 0.05 - 16 bar (PN16) A.R.I. S-052 0.2 - 25 bar (PN25)
Temperature	Maximum working temperature: 60° C Maximum intermittent temperature: 90° C
Testing pressure	1.5 times maximum working pressure
Valve coating	Fusion bonded epoxy coating in compliance with standard DIN 30677-2 (Model A.R.I. S-050 C, A.R.I. S-052)

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

The isolation valve installed under the air valve must be fully open to prevent damage or malfunction and ensure performance within the specifications of the air valve.

For complete installation instructions, please refer to the IOM document.



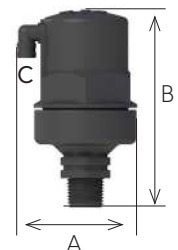
Valve Selection Options

Models	A.R.I. S-050 A.R.I. S-050 L Specifically designed to operate with liquids containing small suspended solids A.R.I. S-050 C Protective metal shell A.R.I. S-052 Protective metal shell
Valve connection	Threaded male BSPT/NPT
Standard materials	Reinforced Nylon, Polypropylene, Stainless Steel 316, Cast Ductile Iron Shell
Optional add-on components	One-way Out attachment, allows for air discharge only, prevents air intake
Pressure rating	PN10 A.R.I. S-050 A.R.I. S-050 C A.R.I. S-050 L PN16 A.R.I. S-050 A.R.I. S-050 L A.R.I. S-050 C PN25 A.R.I. S-052



Dimensions and Weight

Model	Dimensions (mm)		Connections	Weight (kg)	Orifice Area (mm ²)
	max. A	B			
Nylon Models					
A.R.I. S-050	87	143	1/8" BSP Female	0.3	12
A.R.I. S-050 L	88	223	1/8" BSP Female	0.34	12
Metal Models					
A.R.I. S-050 C	85	148	1/8" BSP Female	1.65	12
A.R.I. S-052	85	148	1/8" BSP Female	1.65	9



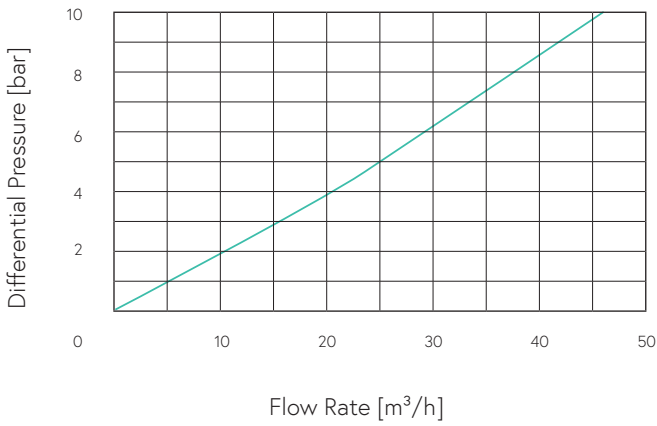
NOTE

Dimension A in the picture and in the table shows the maximum product width.

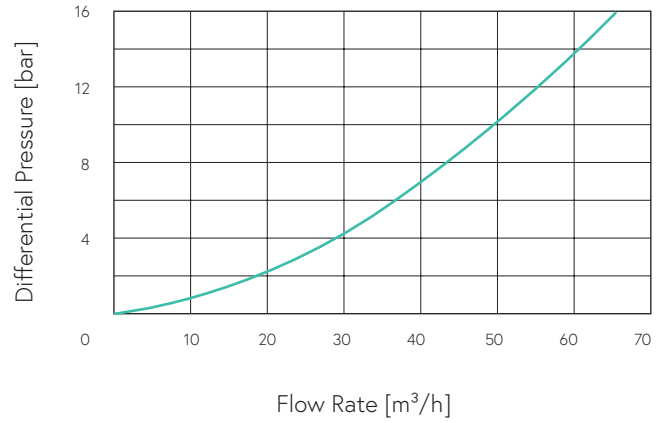
All product weights are approximate, due to the differences in flange standards, materials and variable accessories.

Flow Charts

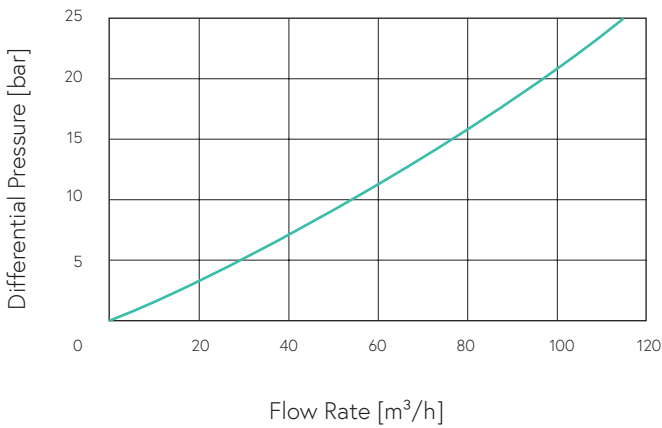
PN10 Automatic Air Release Flow Rate



PN16 Automatic Air Release Flow Rate



PN25 Automatic Air Release Flow Rate



Parts List and Specifications

No.	Part	Material
1	Cover Assembly	
1a	Discharge Outlet	Polypropylene
1b	Body	Reinforced Nylon / Polypropylene
2	Air Release Assembly	
2a	Clamping Stem	Reinforced Nylon / Polypropylene
2b	Float	Foamed Polypropylene
2c	Rolling Seal	EPDM
3	Base Assembly	
3a	O-ring	NBR
3b	Base	Reinforced Nylon / Polypropylene / Stainless Steel
3c	Strainer	Reinforced Nylon

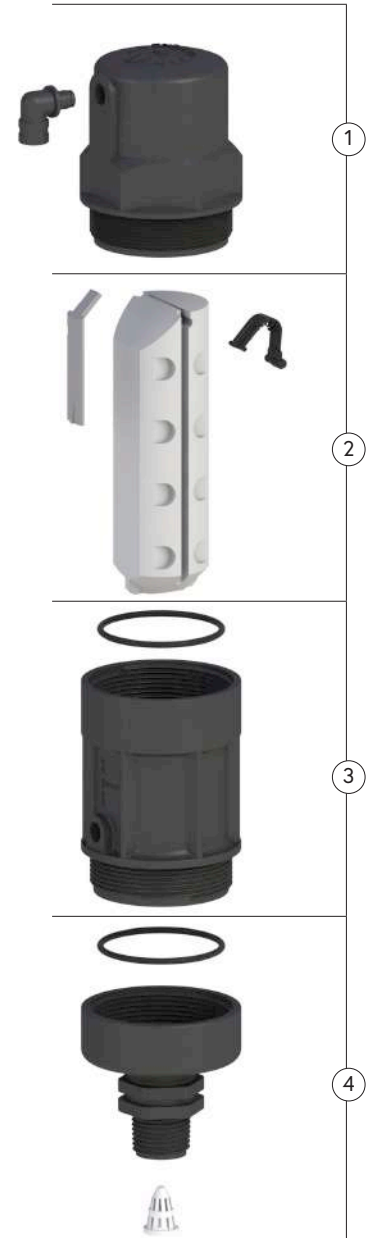


NOTE Polypropylene for PN10 models only

Parts List and Specifications

No.	Part	Material
1	Cover Assembly	
1a	Discharge Outlet	Polypropylene
1b	Body	Reinforced Nylon / Polypropylene
2	Air Release Assembly	
2a	Clamping Stem	Reinforced Nylon / Polypropylene
2b	Float	Foamed Polypropylene
2c	Rolling Seal	EPDM
3	Extension Assembly	
3a	Extension	Reinforced Nylon / Polypropylene
3b	O-ring	NBR
4	Base Assembly	
4a	O-ring	NBR
4b	Base	Reinforced Nylon / Polypropylene
4c	Strainer	Reinforced Nylon

NOTE Polypropylene for PN10 models only



Parts List and Specifications

No.	Part	Material
1	Cover Assembly	
1a	Discharge Outlet	Brass
1b	O-ring	NBR
1c	Shell	Ductile Iron
2	Body	Reinforced Nylon
3	Air Release Assembly	
3a	Clamping Stem	Reinforced Nylon / Polypropylene
3b	Float	Foamed Polypropylene
3c	Rolling Seal	EPDM
3d	O-ring	NBR
4	Base	Brass / Stainless Steel

