

- Designed to quickly and accurately react to the water temperature in the heat pump circuit and does not need the influence of the ambient temperature to operate
- A protective ring has been included in the construction to prevent system debris from clogging the operation of the valve
- Double O-rings and reduced surface friction treatment on the operating member also ensure correct operation and reliability even after years of non-movement

Product Range

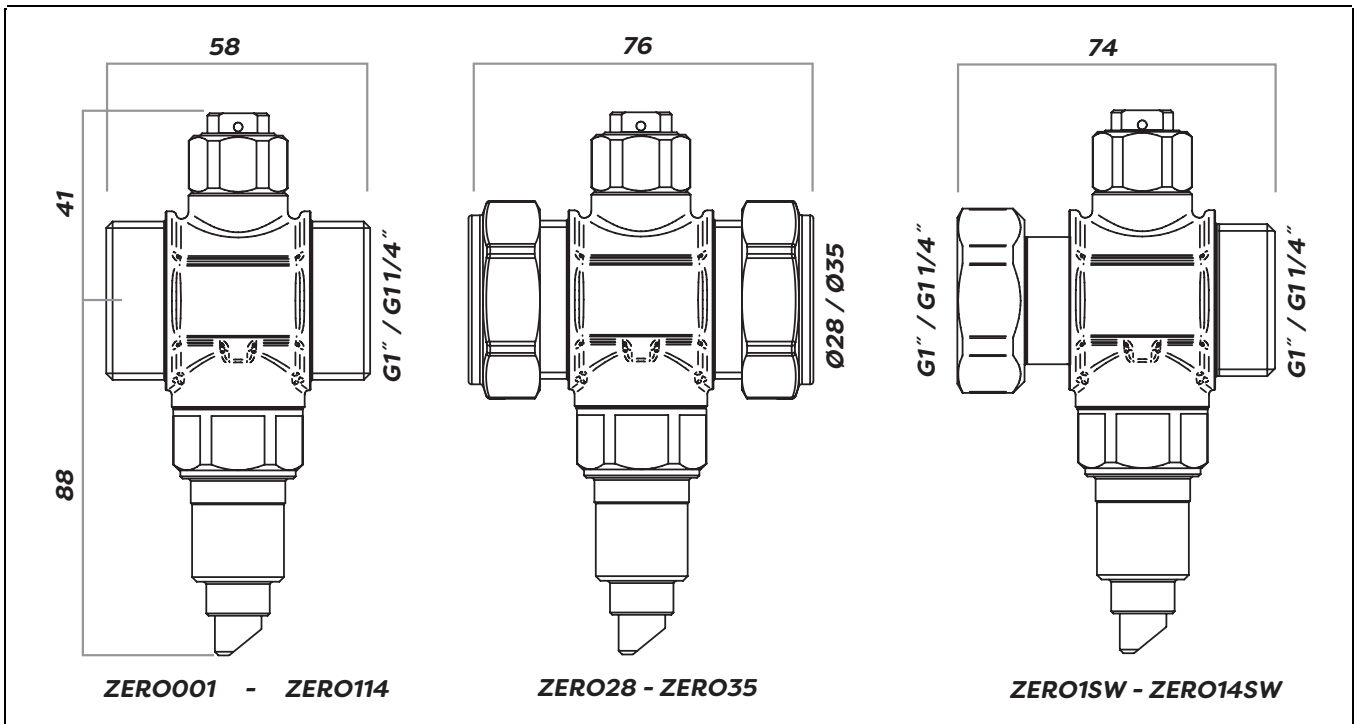
Code	Description
ZERO28	28mm Zero Anti-freeze Valve
ZERO35	35mm Zero Anti-freeze Valve
ZERO001	1" Male Zero Anti-freeze Valve
ZERO114	1 1/4" Male Zero Anti-freeze Valve
ZERO1SW	1" Male x 1" Female Zero Anti-freeze Valve
ZERO14SW	1 1/4" Male x 1 1/4" Female Zero Anti-freeze Valve
ZERO28ZG	28mm Zero Anti-freeze Valve with Zero Guard
ZERO35ZG	35mm Zero Anti-freeze Valve with Zero Guard
ZERO001ZG	1" Male Zero Anti-freeze Valve with Zero Guard
ZERO114ZG	1 1/4" Male Zero Anti-freeze Valve with Zero Guard
ZERO1SWZG	1" Male x 1" Female Swivel Zero Anti-freeze Valve with Zero Guard
ZERO14SWZG	1 1/4" Male x 1 1/4" Female Swivel Zero Anti-freeze Valve with Zero Guard

Accessories

Code	Description
ZEROGUARD	Anti-freeze Valve Guard
INSULZERO28	Insulation for 28mm / 1" Zero Anti-freeze valve
INSULZERO35	Insulation for 35mm / 1 1/4" Zero Anti-freeze valve
INSULZERO28SW	Insulation for 1" Zero Swivel Anti-freeze valve
INSULZERO35SW	Insulation for 1 1/4" Zero Swivel Anti-freeze valve
INSULBOND	290ml Bond & Seal

Technical Features

Max Inlet Pressure (static):	10 Bar
Medium:	Water
Sensitivity:	±1°C
Opening Temperature:	3°C
Closing Temperature:	4°C
Working Temperature Range:	0 to 80°C
Ambient Temperature Range:	-30 to 60°C
Max Discharge Flow Rate @ 3 Bar:	1.5 L/H
Kv:	ZERO001 (55m ³ /h)
	ZERO114 (70m ³ /h)
	ZERO28 (64m ³ /h)
	ZERO35(70m ³ /h)
	ZERO1SW (33m ³ /h)
	ZERO14SW (52m ³ /h)



Insulating

The patented Inta Zero Anti-Freeze Valves have been specifically designed to quickly and accurately react to the water temperature in the heat pump circuit and do not need the influence of the ambient temperature to operate.

Building regulations Part L states that all external fittings on an Air Source Heat Pump System must be fully insulated to reduce heat loss and maintain system efficiency. Inta Zero Anti-Freeze Valves will still maintain correct operation and discharge the water at the same temperature even when a system is correctly insulated.

The Inta Zero Anti-Freeze valves have been Independently tested using a controlled Ambient Temperature between -1°C to 1°C and starting water temperature 10°C to demonstrate the possibility of insulating the Inta Zero Valve without affecting the performance:

Without Insulation

Water Discharge Temperature = 2.49°C
 Time taken to begin discharge = 1 hour 4mins

With Insulation

Water Discharge Temperature = 2.03°C
 Time taken to begin discharge = 4hour 3mins

Warning!

If the Inta Zero valves are insulated, then due care must be taken to ensure that all external pipework and fittings are fully and appropriately insulated and sealed. Failure to do so could prevent the proper operation of the Zero valve resulting in colder areas of a system being damaged by freezing. The Anti-vacuum valve must be kept clear at all times, Intatec recommend using the ZEROGUARD anti-vacuum cover (inspected on annual service).



BUILDING REGULATIONS PART L COMPLIANCE

Building regulations Part L states that all external pipework on an Air Source Heat Pump System should be fully insulated to reduce heat loss and maintain system efficiency. Inta Zero Anti-Freeze Valves will maintain correct operation and discharge the water at the same temperature even when a system is correctly insulated.

FULLY INSULATED

The Inta Zero's thermostatic element sits directly in the system's water flow, allowing it to accurately react to the temperature of the system, regardless of ambient temperature. This means the Inta Zero can be fully insulated to help maintain the COP and SCOP of your system without affecting the operation.

Application Diagrams

