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HERZ Anti Freeze Valve

Safety element for heat pumps

- Premium-quality thermal expansion element for extended lifespan
- „Fit and forget“ – fully automatic and maintenance-free
- Compact design for easy installation
- Cost-effective and eco-friendly alternative to glycol and heat exchanger
- Enhances heating efficiency
- Reduces pumping power requirements
- Allows for downsizing of system components
- Eliminates glycol management and (re)filling costs

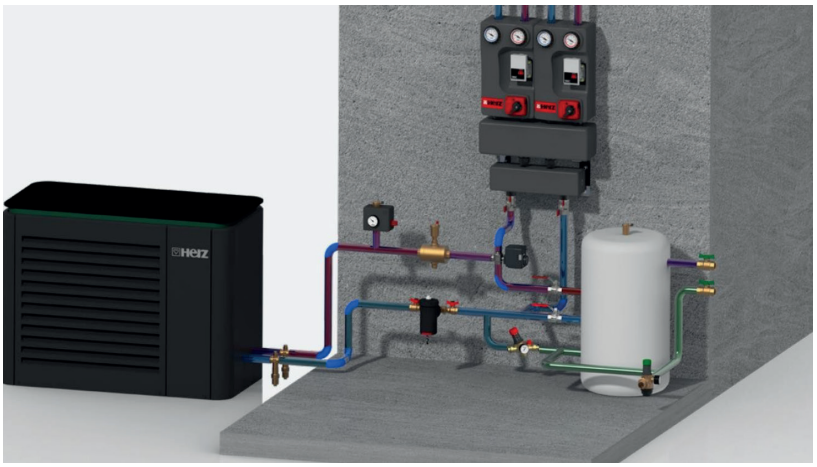
Smart alternative to glycol for heat pump freeze protection

Outdoor-installed monobloc heat pumps are equipped with algorithms to prevent freezing. As long as the system is powered and water is circulating, the risk of freezing is minimal. However, in the event of a power outage or heat pump failure, stagnant water—especially within the heat exchanger—can freeze and cause irreparable damage.

To mitigate this risk, **glycol** is commonly added to the heating circuit. While glycol effectively lowers the freezing point of the medium, it introduces several drawbacks:

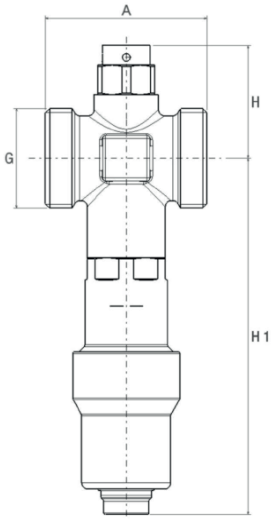
- **Reduced thermal capacity**, requiring more flow to transfer the same amount of heat.
- **Higher viscosity**, increasing pumping power and energy consumption.
- **The need for a heat exchanger and a second pump** on the secondary side increases both installation and operating costs.
- **System complexity** with the need for regular monitoring, refilling, and safe disposal—glycol cannot be discharged into sewage systems.

The HERZ Anti Freeze Valve offers a cost-effective and eco-friendly alternative to glycol. Installed on both the supply and return lines of the heat pump, it activates when the heating medium temperature drops below 3 °C. A thermal expansion element opens a drain port, while a vacuum breaker enables water to flow out of the pipes—preventing ice formation and frost damage.



Technical data

Nominal pressure:	PN 10
Max. operating temperature:	90 °C
Ambient temperature range:	-30 °C to 60 °C
Control temperature (medium):	3 °C (opening), 4 °C (closing)
kv value:	55 m³/h (full 1“ pipe bore)
Discharge flow rate (3 bar):	1 l/h



Dimensions

Order number	DN	G	A	H	H1
1 **2623** 13	25	1“	54 mm	37 mm	118 mm

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