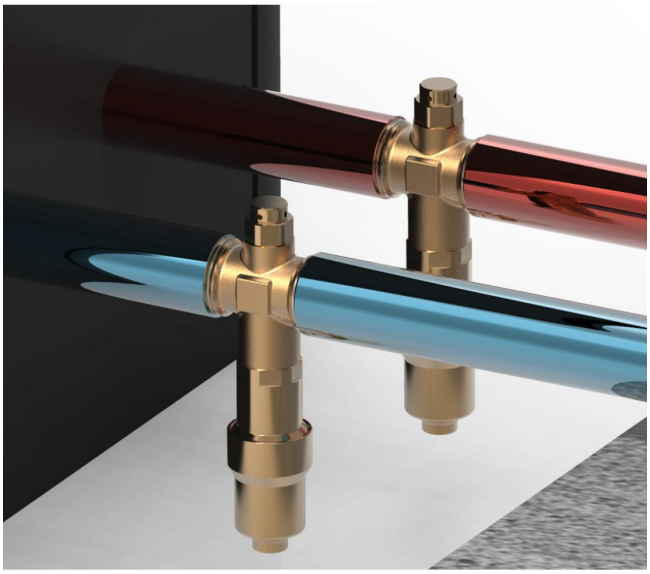
www.herz.eu

# HERZ FrostGuard

## Heat Pump Frost Protection Valve


- Economic and environmentally friendly alterntaive to glycol
- Fit and forget - completely automatic and maintenance free
- Improved heating efficiency
- Reduced pumping power
- Enables smaller sizing of system components
- Saves glycol management and (re-)filling costs
- Compact and easy to install
- Premium quality thermal expansion element for extended life

## The 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 fluid to transfer the same amount of heat.
- **Higher viscosity**, increasing pumping power and energy consumption.
- **System complexity**, with the need for regular monitoring, refilling, and safe disposal—glycol cannot be discharged into sewage systems.

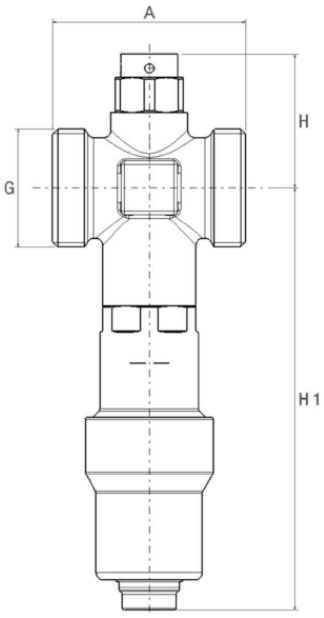
## HERZ FrostGuard - Reliable, Efficient, Maintenance-Free

The HERZ FrostGuard 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.

Key benefits:

- **Purely mechanical operation** – no power, settings, or maintenance required.
- **Automatic protection** – responds only when needed, ensuring safety during emergencies.
- **Improved system efficiency** – water's superior thermal capacity and lower viscosity enhance performance.
- **Cost savings** – eliminates glycol-related expenses and simplifies system design.

**HERZ FrostGuard** protects your heat pump with smart simplicity — **no glycol, no compromise**.




## Operating Parameters

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

## Dimensions and Ordering Information

| Art. Nr: | DN | G | A | H | H1 |
|---|---|---|---|---|---|
| 1 **2623** 13 | 25 | 1" | 54 mm | 37 mm | 118 mm |

WXXXXXX - FlowGuard_EN

**Herz Armaturen Ges.m.b.H.**
Richard-Strauss-Straße 22, 1230 Wien, Österreich
T: +43 1 616 26 31-0, F: +43 1 616 26 31-227
E-Mail: office@herz.eu

**www.herz.eu**