HR
HS
High side float regulators
HR & HS
High side float regulator

The high side control offers a simple mechanical maintenance-free solution to expanding liquid refrigerant from the high to the low pressure side of a refrigeration system, without gas passing. From technical and economical point of view this is the optimum and safest way of expanding refrigerant and handling condensate return.

Reduction of filling capacity
With the WITT HR & HS condensate is continuously expanded to the low pressure side. That means during normal operation nearly the entire refrigerant charge is stored on the low pressure side, whereby a high pressure receiver is unnecessary.

Safety
Due to the mechanical design no wiring or additional controls are required. In the event of a power failure condensate is drained safely to the low pressure side, ensuring highest operational safety.

Energy-efficient
Since refrigerant is always drained by the float whenever condensate accumulates, lower condensing temperatures can be utilized without a need to consider other control criteria. Compared to a system operating with traditional expansion valves there is neither a need for sub-cooling liquid nor superheating the suction gas. (Remark: energy savings of up to 13% are quite possible, i.e. with 5 K lower condensation temperature).

Stable plant operation
Pressure fluctuations are avoided by continuous condensate drainage, guaranteeing stable operation of the whole system.

Reduction in maintenance cost
During downtimes of the refrigeration system there will be slow pressure equalization when using float regulators with low pressure nozzles. Systems with only one compressor can be started from an unloaded condition without need for additional controls.

Technical data

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* Refrigerant: NH₃, T₀ = -10°C, T_C = +35°C
** Refrigerant: NH₃, T₀ = +35°C, T_C = +75°C
High-quality refrigeration components

- HRP  Hermetic refrigerant pumps
- GP  Open refrigerant pumps
- HR & HS  High side float regulators
- WP3HR  High side float regulators for heat pumps up to 65 bar
- ECO  Economizer
- BDP  Automatic oil recovery
- NGX  Maximum level switch
- HDB 3  Stainless steel oil drain vessel
- HAD  High efficient separator
- Pumping stations
- SAV  Standard-separator-evaporator-unit
- DB  Pressure vessel units
- NH$_3$/CO$_2$ Cascades