

# Emerson™ HF Series

## balanced port thermal expansion valve



## The ultimate in reliability and flexibility from Emerson Climate Technologies

When it comes to protecting food there's no such thing as cutting corners on quality. Supermarket operators depend on their refrigerators and freezers to be up and running, every hour of every day - even in the toughest retail environments, and you need solutions you can count on, especially when it comes to the refrigeration equipment that you service. We know you need to provide unsurpassed reliability that can keep food at just the right temperature, the kind of reliability that can also help lower maintenance costs. This is exactly the kind of reliability that comes with the Emerson HF Series thermal expansion valve.

### The Emerson HF thermal expansion valve is offered several ways:

- Pre-packaged service kits - Include a mix of bodies and power elements with a complete set of cages to serve the most applications with a minimum of parts.
- Individual components - Bodies, cages, & power elements may be ordered separately and can be used to build personalized service kits or replenish pre-packaged kits.
- Finished valves - Assembled valves ready for immediate installation. All HF valves use a balanced port cage design that compensates for changes in operating pressures due to varying ambient temperatures, gas defrost, heat reclaim, or widely varying evaporator loads.

## Supermarket reliability

The HF Series thermal expansion valve brings Emerson's proven technology to supermarket installations. It's a time-tested technology that brings you and your business a unique combination of reliability and performance that not only reduces spoilage, but also cuts the hassle and expense of time-consuming maintenance.

HF valves have been designed and built to eliminate refrigerant leakage and minimize corrosion. The technology of the HF Series thermal expansion valve enables it to provide an extra safety factor for extreme operating environments in high ambient and dirty working environments.



| Feature  | Benefit   |
|--|---|
| Interchangeable cages, power assemblies and valve bodies | Allows service of most valves without brazing         |
| Stainless steel power element                            | Eliminates power element failures caused by corrosion |
| Easy-to-remove power element                             | No special tools needed                               |
| Fine setpoint adjustment threads                         | Easy to calibrate superheat                           |
| Balanced port and bi-flow capability                     | Flexible application                                  |
| Removable strainer                                       | Prevents contaminants from clogging valve             |

## Options

- ODF or SAE connections
- Straight-through or angle flow configurations
- Removable inlet strainer available (ODF only)
- Internal or external equalizer

## Specifications

- Maximum working pressure: 450 psig
- Operating Temperature: -40°F to 50°F
- Use with R-22, R-134a, R-404A, R-507, R-12, R-502, R-407

## Technology designed to keep your reputation intact

To keep your customers satisfied, you must deliver the best technology, the best service, and the best protection. And with Emerson Climate Technologies you can deliver every time.

Contractors around the world have turned to Emerson for the ultimate refrigeration solutions, all reinforced by unwavering customer support. And with breakthrough products like the HF Series thermal expansion valve, your customers' refrigeration systems will have a higher level of protection.

The Emerson HF Series thermal expansion valve and all the essential Emerson Climate Technologies products are conveniently available at wholesalers worldwide. For information on local refrigeration wholesalers near you, visit [EmersonClimateContractor.com](http://EmersonClimateContractor.com).

## Nomenclature example: HFESC 2 HC 5 FT 3/8 X 1/2 ODF S/T

• Use with R-22, R-134a, R-404A, R-507, R-12, R-502

| HF                   | N                                      | E                              | S                             | C                                   | B                        | 2                               | H  | C  | 5 FT                                      | 3/8 X 1/2                 | ODF                         | S/T                                    |
|----------------------|--|--------------------------------|-------------------------------|-------------------------------------|--------------------------|---------------------------------|--|--|---|---------------------------|-----------------------------|--|
| Valve Series         | Superheat Adjustment                   | Equalizer                      | Connection Type               | Removable Inlet Strainer (optional) | Bleed Hole (optional)    | Capacity Nominal Rating in Tons | Refrigerant Code   | Charge Code  | Capillary Tube Length                     | Inlet x Outlet Connection | Connection Type             | Configuration                          |
| Balanced Port Design | N=Non-adjustable (Omit for adjustable) | E=External (Omit for Internal) | S=solder (Omit for SAE Flare) | C=Inlet Strainer (ODF only)         | (Omit for no bleed hole) |                                 | F = R12<br>H = R22<br>M = R134a<br>N = R407C<br>P = R507<br>R = R502<br>S = R404A<br>Z = R410A | C=medium temp<br>CA=heat pump<br>W(MOP)=press. limiting<br>Z=low temp<br>AA=wide range | 5 FT (std)<br>other lengths are available | 1/4 x 3/8<br>3/8 x 1/2    | SAE = flare<br>ODF = solder | S/T = straight thru<br>ANG = 90° angle |

1/8 – 13 ton R-404A capacity

## EmersonClimate.com

2006FC-12 R4 (5/14) Emerson is a trademark of Emerson Electric Co. ©2014 Emerson Climate Technologies, Inc. All rights reserved.

EMERSON. CONSIDER IT SOLVED.™