PRODUCT MANUAL

Expansion Valve R Series

Model: 0.5HC – 18HC



CATEGORY	MODEL	ISSUE DATE
Refrigeration Valves	**0.5HC – 18HC**	**2026-11-22**

1. Product Overview

R Series Expansion Valve Feature: Constant super heat adjusting performance. Evaporator temperature range:-40 ! ~ +10°C Changeable imputing filter net. Suitting for R220 R5020 R134a0 R404A0 R507

The R series is the larger thermostatic expansion valve in the range, covering 0.5 to 18 TR (1.76 to 63.4 kW on R22) where the T series runs out of orifice. It is externally equalised throughout, because at these capacities the evaporator almost always has a distributor or a coil pressure drop large enough to upset an internally equalised valve.

Capacity tables are published for R22, R134a, R407C, R404A/R507 and R410A, and selection must be made from the table for the refrigerant actually in the system: the same valve gives noticeably different capacity on R410A than on R22, and a valve sized on the R22 figure will be oversized after a retrofit. The rated evaporating range runs from -40 C to +10 C, so the same body covers freezer, chiller and air-conditioning duties.

Connections are 3/8 inch by 1/2 inch on the smaller sizes and 1/2 inch by 5/8 inch as capacity rises, both with a 1.5 m capillary. Static superheat is adjustable and should be checked after commissioning rather than left at the factory setting, because it interacts with distributor nozzle selection.

Two installation details cause most of the problems at this size. First, the external equaliser must be taken from the suction line downstream of the bulb and should slope back towards the line so oil cannot sit in it and give a false signal. Second, where a distributor is fitted the nozzle has to be matched to the valve capacity - an oversized nozzle starves the circuits and an undersized one floods them, and neither fault looks like a valve problem at first.

For replacement work match both the capacity at the design point and the connection sizes; the physical envelope differs between body sizes.

2. Key Features

- Constant superheat adjusting performance
- Changeable inlet filter net
- Suitable for R22, R502, R134a, R404A and R507
- Capacity table available for R22 / R134a / R407C / R404A-R507 / R410A

3. Technical Specifications

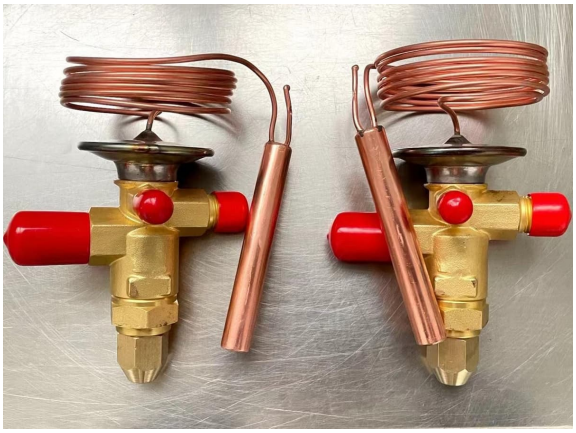
Item	Specification
Refrigerant	R22, R502, R134a, R404A, R507, R410A
Evaporator temperature	-40 °C ~ +10 °C
Equalizer	External
Capillary length	1.5 m
Connection (inlet x outlet)	3/8" x 1/2", 1/2" x 5/8"
Nominal capacity	0.5 – 18 TR (1.76 – 63.4 kW, R22)

4. Commercial Terms

MINIMUM ORDER	**Negotiable**
LEAD TIME	**Negotiable**
SHIPPING PORT	**Shanghai / Ningbo, China**
PLACE OF ORIGIN	**China**
PAYMENT TERMS	**T/T, L/C**
SUPPLY ABILITY	**Negotiable**

5. Product Gallery





Contact us for a free quotation

Our engineering team replies within 24 hours with selection advice and an FOB / CIF quotation.

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