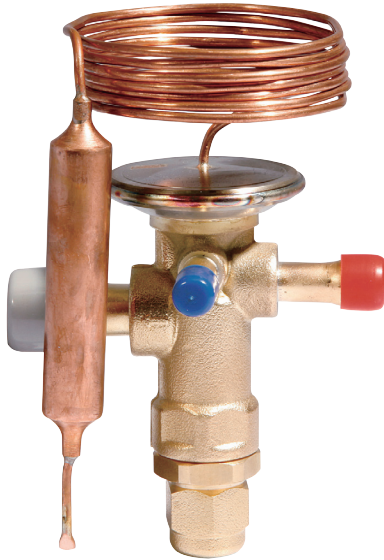


RFGD SERIES | *Thermostatic Expansion Valve*



RFGD series thermostatic expansion valves are used to regulate refrigerant flow into the evaporator while controlling the refrigerant's superheat at the outlet of the evaporator. They can be used for various refrigerants under all working conditions. Typical applications are refrigeration systems like commercial refrigerators and freezers, icemakers, dehumidifiers as well as air conditioners like water chillers and bus A/C at various evaporation temperatures.

FEATURES

- COMPACT DESIGN WITH BUILD-IN ORIFICE
- ALL COPPER CONNECTIONS
- OPTIONAL MOP FUNCTION TO ASSURE RELIABLE COMPRESSOR OPERATION
- APPLICABLE IN A WIDE EVAPORATION TEMPERATURE RANGE
- RELIABLE AND CONSISTENT PERFORMANCE OF SUPERHEAT CONTROL
- BALANCED PORT DESIGN TO ADDRESS THE INFLUENCE OF PRESSURE CHANGES IN THE SYSTEM
- THERMAL BULB UTILIZES CROSS CHARGE TECHNOLOGY, PROVIDING CONSISTENT SUPERHEAT CONTROL OVER WIDE EVAPORATOR TEMPERATURE RANGE
- 9 SIZES AVAILABLE RANGING FROM 2 TO 24 TON (DEPENDING ON THE TYPE OF REFRIGERANT)

GENERAL SPECIFICATION

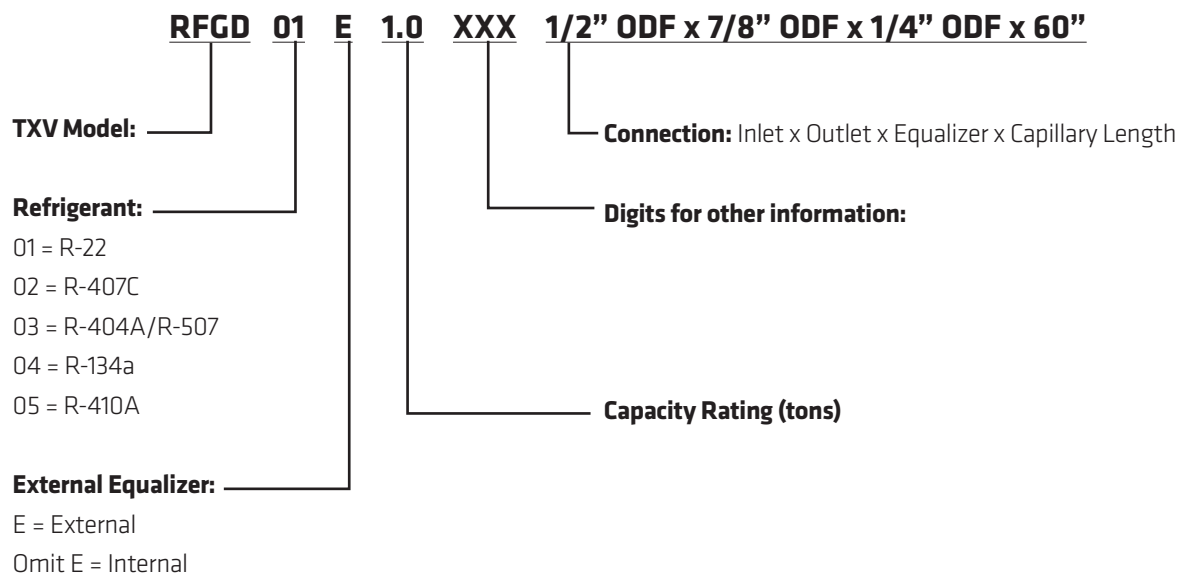
- Applicable for all common HCFC and HFC refrigerants such as: R-22, R-134a, R-404A, R-407C, R-410A, R-507
- Ambient temperature; min./max.: -31°F to +131°F
- Medium temperature; min./max.: -40°F to +158°F
- Maximum operating pressure PS: 696 psig
- Installation position: Preferably with power element on top
- Certifications: UL/CSA and PED declaration

RFGD SERIES | *Thermostatic Expansion Valve*

TECHNICAL PARAMETERS

- RFGD valves available in straight through configuration with adjustable superheat
- Connection types:
 - Solder: Inlet: 3/8 ODF, 1/2" ODF, 5.8" ODF, 7/8" ODF
 - Outlet: 5/8" ODF, 7/8" ODF, 1-1/8" ODF, 1-3/8" ODF
 - Ext. Equalizer: 1/4" ODF
- Capillary tube length: 60"
- Temperature range:
 - A/C: -13°F to 50°F; with 60°F MOP
 - Medium & Low Temp. Refrigeration: -40°F to +50°F; without MOP

MODEL DESIGNATION



RFGD SERIES | *Thermostatic Expansion Valve*

TECHNICAL DATA - RFGD Model List

| Ref. | Model Number | Nominal Capacity (tons) | Connections, ODF Solder (inch) | | | Capillary Tube Length (inch) | MOP (Thermostatic Charge) |
|------------------|------------------|-------------------------|--------------------------------|--------|-----------|------------------------------|---------------------------|
| | | | Inlet | Outlet | Equalizer | | |
| R-407C | RFGD02E-3.1-33 | 3.1 | 3/8 | 5/8 | 1/4 | 60 | None |
| | RFGD02E-4.2-34 | 4.2 | 1/2 | 7/8 | | | |
| | RFGD02E-6.3-35 | 6.3 | | | | | |
| | RFGD02E-8.1-36 | 8.1 | | | | | |
| | RFGD02E-9.4-37 | 9.4 | | | | | |
| | RFGD02E-11.7-38 | 11.7 | | | | | |
| | RFGD02E-12.0-542 | 12 | 5/8 | | | | |
| | RFGD02E-12.0-543 | 12 | | | | | |
| | RFGD02E-15.0-545 | 15 | | | | | |
| | RFGD02E-15.0-547 | 15 | 7/8 | 1-1/8 | | | |
| | RFGD02E-18.0-549 | 18 | | | | | |
| | RFGD02E-18.0-551 | 18 | | | | | |
| | RFGD02E-12.0-637 | 12 | 5/8 | 1-3/8 | | | 95 psig (60°F) |
| | RFGD02E-12.0-638 | 12 | | 7/8 | | | |
| | RFGD02E-15.0-640 | 15 | | | | | |
| | RFGD02E-15.0-642 | 15 | 7/8 | 1-1/8 | | | |
| RFGD02E-18.0-644 | 18 | | | | | | |
| RFGD02E-18.0-646 | 18 | 1-3/8 | | | | | |
| R-404A R-507 | RFGD03E-2.0-39 | 2 | 3/8 | 5/8 | 1/4 | 60 | None |
| | RFGD03E-2.8-40 | 2.8 | 1/2 | 7/8 | | | |
| | RFGD03E-4.2-41 | 4.2 | | | | | |
| | RFGD03E-5.4-42 | 5.4 | | | | | |
| | RFGD03E-6.4-43 | 6.4 | | | | | |
| | RFGD03E-7.8-44 | 7.8 | | | | | |
| | RFGD03E-9.0-532 | 9 | 5/8 | | | | |
| | RFGD03E-9.0-533 | 9 | | | | | |
| | RFGD03E-11.0-535 | 11 | | | | | |
| | RFGD03E-11.0-537 | 11 | 7/8 | 1-1/8 | | | |
| | RFGD03E-13.0-539 | 13 | | | | | |
| | RFGD03E-13.0-541 | 13 | | | | | |
| | RFGD03E-9.0-627 | 9 | 5/8 | 7/8 | | | 122 psig (60°F) |
| | RFGD03E-9.0-628 | 9 | | | | | |
| | RFGD03E-11.0-630 | 11 | | | | | |
| | RFGD03E-11.0-632 | 11 | 7/8 | 1-1/8 | | | |
| RFGD03E-13.0-634 | 13 | | | | | | |
| RFGD03E-13.0-636 | 13 | | | | | | |

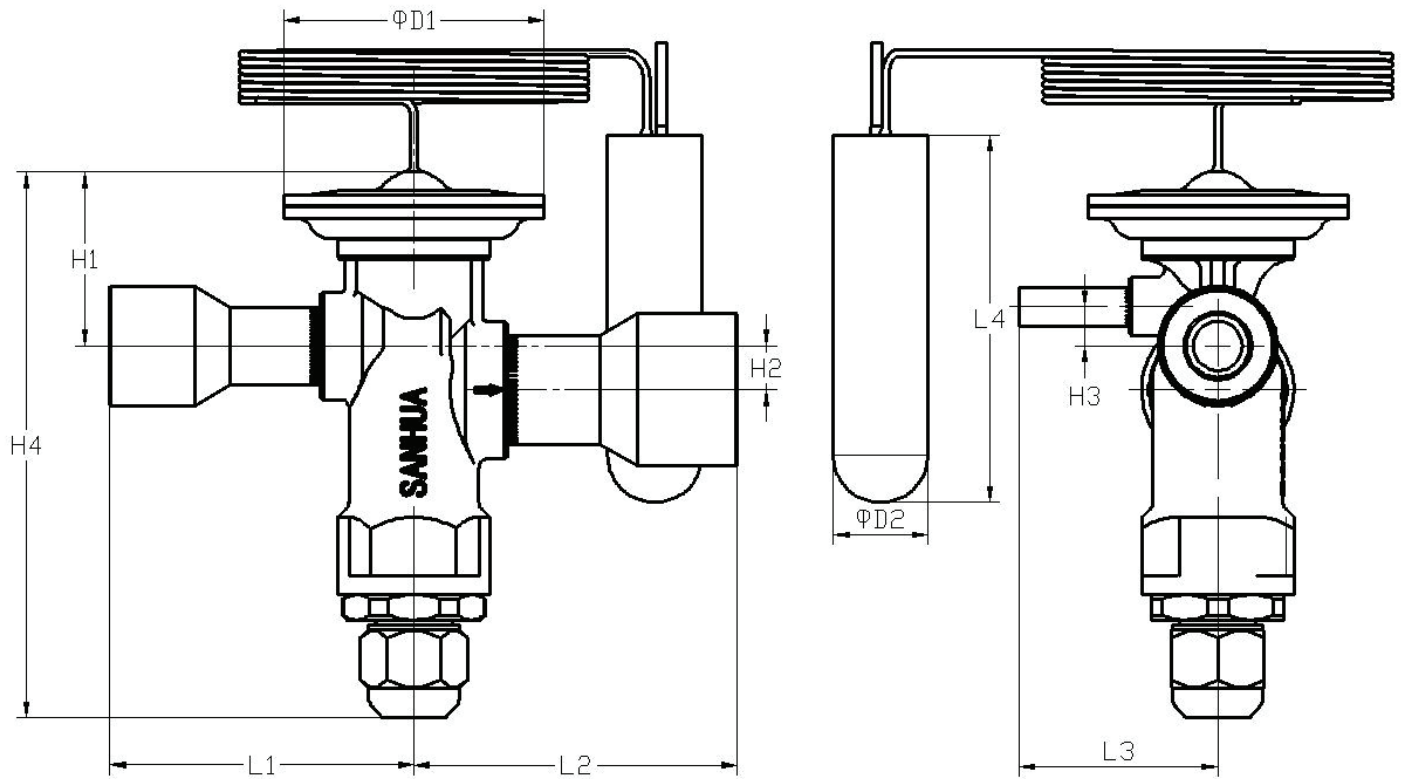
RFGD SERIES | *Thermostatic Expansion Valve*

TECHNICAL DATA - RFGD Model List continued

| Ref. | Model Number | Nominal Capacity (tons) | Connections, ODF Solder (inch) | | | Capillary Tube Length (inch) | MOP (Thermostatic Charge) |
|------------------|------------------|-------------------------|--------------------------------|--------|-----------|------------------------------|---------------------------|
| | | | Inlet | Outlet | Equalizer | | |
| R-134a | RFGD04E-1.8-01 | 1.8 | 3/8 | 5/8 | 1/4 | 60 | None |
| | RFGD04E-2.5-02 | 2.5 | 1/2 | 7/8 | | | |
| | RFGD04E-3.6-03 | 3.6 | | | | | |
| | RFGD04E-4.6-04 | 4.6 | 5/8 | | | | |
| | RFGD04E-5.5-49 | 5.5 | | | | | |
| | RFGD04E-6.8-32 | 6.8 | | | | | |
| | RFGD04E-8.0-501 | 8 | | | | | |
| | RFGD04E-8.0-502 | 8 | 1-1/8 | | | | |
| | RFGD04E-10.0-504 | 10 | | | | | |
| | RFGD04E-10.0-520 | 10 | 7/8 | | | | |
| | RFGD04E-12.0-522 | 12 | | | | | |
| | RFGD04E-12.0-524 | 12 | 5/8 | 1-3/8 | | | |
| | RFGD04E-8.0-601 | 8 | | 7/8 | | | |
| | RFGD04E-8.0-602 | 8 | 7/8 | 1-1/8 | | | |
| | RFGD04E-10.0-604 | 10 | | 1-3/8 | | | |
| | RFGD04E-10.0-606 | 10 | 7/8 | 1-1/8 | | | |
| RFGD04E-12.0-608 | 12 | 1-3/8 | | | | | |
| RFGD04E-12.0-610 | 12 | | | | | | |
| R-410A | RFGD05E-3.5-22 | 3.5 | 3/8 | 5/8 | 1/4 | 60 | None |
| | RFGD05E-4.5-23 | 4.5 | 1/2 | 7/8 | | | |
| | RFGD05E-7.0-24 | 7 | | | | | |
| | RFGD05E-8.6-25 | 8.6 | 5/8 | | | | |
| | RFGD05E-10.6-27 | 10.6 | | | | | |
| | RFGD05E-12.8-26 | 12.8 | | | | | |
| | RFGD05E-15.0-510 | 15 | | | | | |
| | RFGD05E-15.0-511 | 15 | 1-1/8 | | | | |
| | RFGD05E-19.0-512 | 19 | | | | | |
| | RFGD05E-19.0-517 | 19 | 7/8 | 1-3/8 | | | |
| | RFGD05E-23.0-555 | 23 | | 7/8 | | | |
| | RFGD05E-23.0-557 | 23 | 5/8 | 1-3/8 | | | |
| | RFGD05E-15.0-647 | 15 | | 7/8 | | | |
| | RFGD05E-15.0-648 | 15 | 1-1/8 | | | | |
| | RFGD05E-19.0-650 | 19 | | | | | |
| | RFGD05E-19.0-652 | 19 | 7/8 | 1-3/8 | | | |
| RFGD05E-23.0-654 | 23 | 7/8 | | | | | |
| RFGD05E-23.0-656 | 23 | | | | | | |

RFGD SERIES | *Thermostatic Expansion Valve*

DIMENSIONS



| Model Range | Connection Sizes | Capillary | Dimensions | | | | | | | | | |
|----------------------|------------------|-----------|------------|------|------|------|------|------|------|------|------|------|
| | | | H1 | H2 | H3 | H4 | L1 | L2 | L3 | L4 | ΦD1 | ΦD2 |
| | | | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (in) |
| RFGD02E-3.1 to 11.7 | 3/8x5/8 | 60 | 1.18 | 0.30 | 0.20 | 3.82 | 1.63 | 1.79 | 1.48 | 2.52 | 1.89 | 0.57 |
| RFGD03E-2.0 to 7.8 | 1/2x7/8 | | | | | | 1.63 | 2.34 | | | | |
| RFGD04E-1.8 to 6.8 | 5/8x7/8 | | | | | | 1.79 | 2.34 | | | | |
| RFGD05E-3.5 to 12.8 | 5/8x7/8 | | | | | | | | | | | |
| RFGD02E-12.0 to 18.0 | 5/8x7/8 | 60 | 1.26 | 0.35 | 0.31 | 4.37 | 1.89 | 2.44 | 1.59 | 2.95 | 2.09 | 0.76 |
| RFGD03E-9.0 to 13.0 | 5/8x1-1/8 | | | | | | 1.89 | 2.60 | | | | |
| RFGD04E-8.0 to 12.0 | 7/8x1-1/8 | | | | | | 2.44 | 2.60 | | | | |
| RFGD05E-15.0 to 23.0 | 7/8x1-3/8 | | | | | | 2.44 | 2.60 | | | | |

RFGD SERIES | *Thermostatic Expansion Valve*

REFRIGERANT CAPACITY TABLES

| Refrigerant | Model Number | Nominal Capacity (tons) |
|-----------------|--------------|-------------------------|
| R-407C | RFGD02E-3.1 | 3.10 |
| | RFGD02E-4.2 | 4.20 |
| | RFGD02E-6.3 | 6.30 |
| | RFGD02E-8.1 | 8.10 |
| | RFGD02E-9.4 | 9.40 |
| | RFGD02E-11.7 | 11.7 |
| | RFGD02E-12.0 | 12.0 |
| | RFGD02E-15.0 | 15.0 |
| | RFGD02E-18.0 | 18.0 |
| R-404A R-507 | RFGD03E-2.0 | 2.00 |
| | RFGD03E-2.8 | 2.80 |
| | RFGD03E-4.2 | 4.20 |
| | RFGD03E-5.4 | 5.40 |
| | RFGD03E-6.4 | 6.40 |
| | RFGD03E-7.8 | 7.80 |
| | RFGD03E-9.0 | 9.00 |
| | RFGD03E-11.0 | 11.0 |
| | RFGD03E-13.0 | 13.0 |
| R134a | RFGD04E-1.8 | 1.80 |
| | RFGD04E-2.5 | 2.50 |
| | RFGD04E-3.6 | 3.60 |
| | RFGD04E-4.6 | 4.60 |
| | RFGD04E-5.5 | 5.50 |
| | RFGD04E-6.8 | 6.80 |
| | RFGD04E-8.0 | 8.00 |
| | RFGD04E-10.0 | 10.0 |
| | RFGD04E-12.0 | 12.0 |
| R-410A | RFGD05E-3.5 | 3.50 |
| | RFGD05E-4.5 | 4.50 |
| | RFGD05E-7.0 | 7.00 |
| | RFGD05E-8.6 | 8.60 |
| | RFGD05E-10.6 | 10.6 |
| | RFGD05E-12.8 | 12.8 |
| | RFGD05E-15.0 | 15.0 |
| | RFGD05E-19.0 | 19.0 |
| | RFGD05E-23.0 | 23.0 |

