

Product category information

TUB/TUBE



TUB/TUBE stainless steel thermostatic expansion valves are used for liquid injection into evaporators on both refrigeration and air conditioning systems using fluorinated refrigerants. TUB/TUBE valves are compact in design, light weight and have steel / copper bi-metal connections for fast soldering. TUB/TUBE have a fixed orifice and adjustable superheat.

TUB/TUBE, angleway, R134a

Temperature range -40 - 10°C.
Max. working pressure 34.0 bar.
The rated capacity is based on:
Evaporating temperature $t_e = +5^\circ\text{C}$
Condensing temperature $t_c = +32^\circ\text{C}$
Refrigerant liquid temperature $t_l = +28^\circ\text{C}$
Opening superheat OS = 4 K

External equalization connection size, TUBE versions with mm-connections: 6 mm, versions with in.-connections: 1/4 in.

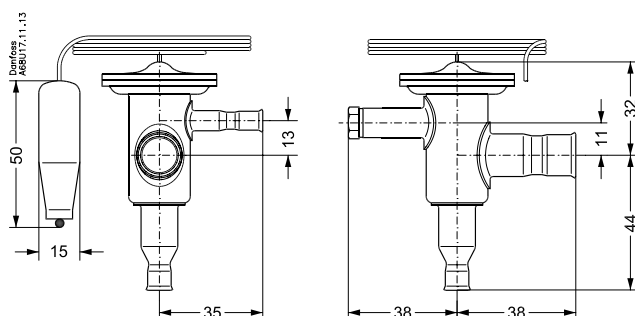
Features

- Made of stainless steel.
- Available in angleway and straightway versions.
- Especially suitable for refrigeration systems in the food industry.
- Adjustable superheat.
- Bi-metal connections: removes the need to 'wet rag' braze.
- Available with MOP (Max. Operating Pressure).
- Biflow function (orifice 1 - 8).
- Fast and easy to install.
- Good temperature transfer from pipe to bulb.
- Filter with high dirt retention capacity.

Technical data

| Characteristic | Value |
|--|----------|
| Max. test pressure (excl. R410A) [bar] | 37,5 bar |
| Max. test pressure (R410A) [bar] | 47 bar |
| Max. valve body temperature [°C] | 120 °C |
| Max. valve body temperature, short-lived peak [°C] | 150 °C |
| Max. working pressure (excl. R410A) [bar] | 34 bar |
| Max. working pressure (R410A) [bar] | 42,5bar |

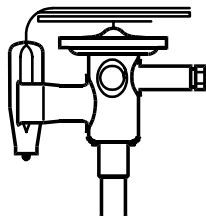
Dimensions



Code number information

Data Sheet

Code no.: 068U2022



| Characteristic | Value |
|--------------------------------|-------------|
| Type | TUBE |
| Direction | Angleway |
| Inlet size [in] | 1/4 in |
| Outlet size [in] | 1/2 in |
| Equalization size [in] | 1/4 in |
| Capillary tube length [mm] | 800 mm |
| Capillary tube length [Ft] | 2,5 ft |
| Refrigerants | R134a |
| Temperature range [°C] | -40 - 10 °C |
| Temperature range [°F] | -40 - 50 °F |
| Orifice size | 5 |
| Orifice capacities [KW] | 2,70 kW |
| Orifice capacities [TR] | 0,78 TR |
| Static Superheat (SS) [°C] | 5,0 |
| Static Superheat (SS) [°F] | 9,00 °F |
| Max. Working Pressure [bar] ef | 34,0 bar |
| Max. Working Pressure [psig] | 500 psig |
| Packing format | Multi pack |
| Quantity per packing format | 24 pc |

Capacity in kW for range N (-40 - +10°C) and opening superheat OS = 4 K

| Δp [bar] | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
|----------|-----|------|------|------|------|------|----|----|
| te [C] | | | | | | | | |
| 10 | 2,3 | 2,9 | 3,3 | 3,5 | 3,6 | 3,6 | | |
| 0 | 1,8 | 2,3 | 2,6 | 2,7 | 2,8 | 2,8 | | |
| -10 | 1,4 | 1,8 | 2 | 2,1 | 2,1 | 2,1 | | |
| -20 | | 1,3 | 1,4 | 1,5 | 1,5 | 1,5 | | |
| -30 | | 0,9 | 0,98 | 1,02 | 1,03 | 1 | | |
| -40 | | 0,61 | 0,66 | 0,68 | 0,68 | 0,68 | | |

Correction factors for subcooling Δtsub

| | 4 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|-------|---|------|------|------|------|------|------|------|------|------|
| R134a | 1 | 1,08 | 1,13 | 1,19 | 1,25 | 1,31 | 1,37 | 1,42 | 1,48 | 1,54 |