

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, R410A

Temperature range $-40 - 10^{\circ}\text{C}$.
Max. working pressure 42.0 bar.
Static Superheat setting 5 K.
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 $OS = 4 \text{ K}$

External equalization connection size, TUBE versions with mm-

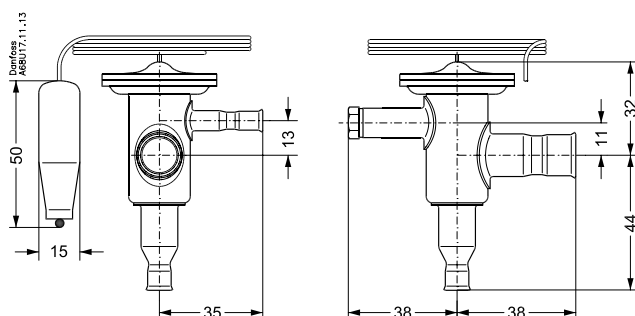
Features

- 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 [$^{\circ}\text{C}$]	120 $^{\circ}\text{C}$
Max. valve body temperature, short-lived peak [$^{\circ}\text{C}$]	150 $^{\circ}\text{C}$
Max. working pressure (excl. R410A) [bar]	34 bar
Max. working pressure (R410A) [bar]	42,5bar

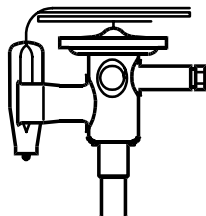
Dimensions



Code number information

Data Sheet

Code no.: 068U1970



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	R410A
Temperature range [°C]	-40 - 10 °C
Temperature range [°F]	-40 - 50 °F
Orifice size	4
Orifice capacities [KW]	4,50 kW
Orifice capacities [TR]	1,30 TR
Static Superheat (SS) [°C]	5,0
Static Superheat (SS) [°F]	9,00 °F
Max. Working Pressure [bar] ef	42,0 bar
Max. Working Pressure [psig]	615 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]	3	6	9	12	15	18	21	24
te [C]								
10	3,1	4,1	4,6	4,9	5,1	5,2	5,1	5
0	2,6	3,5	3,9	4,2	4,3	4,4	4,4	4,3
-10	2,2	2,8	3,2	3,4	3,5	3,6	3,6	3,5
-20		2,2	2,5	2,7	2,7	2,8	2,8	2,8
-30		1,67	1,87	2	2,1	2,1	2,1	2,1
-40			1,36	1,45	1,49	1,51	1,5	1,48

Correction factors for subcooling Δt_{sub}

	4	10	15	20	25	30	35	40	45	50
R410A	1	1,08	1,15	1,21	1,27	1,33	1,39	1,45	1,5	1,56