

Thermostatic Expansion Valve

TA Series

Application

TA/TAE series are used to regulate liquid refrigerant flow into evaporators with small and medium size in refrigeration, ice maker, heat pump, and air conditioning systems by sensing the refrigerant temperature at the evaporator outlet, where the bulb must be placed.

Features

- Fixed (angleway type) and adjustable (straightway type) superheat can be supplied;
- Available with strainer in inlet tube;
- Versions with and without external equalization, with and without bleed;
- Available with universal charge, range N or with MOP charge;



Approvals

UL, CE.

Technical Data

Applicable Refrigerants: R134a, R404A, R507, R290, R407C and R448A/R449A

Max. Bulb Temperature: 100°C

Max. Valve Housing Temperature: 110°C

Max. Operating Pressure: 3.4 MPa

Max. Test Pressure: 3.75 MPa

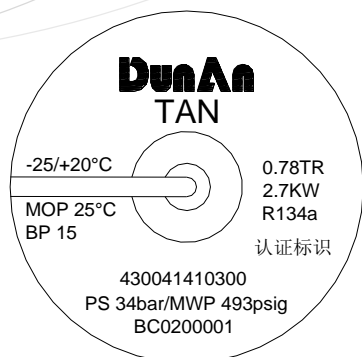
Equalization Connections: 1/4 in. (solder ODF)

Capillary Tube Length: 750mm

Bleed: 15% / 30%

Connections: 1/4, 3/8, 1/2 in.

Identification



Refrigerant

X: R22 Z: R407C

N: R134a P: R290

S: R404A/R507

Example

TAN/TAEN	= Type (N=R134a, E=external Pressure Equalization)
0.78TR	= Nominal Capacity in Tons
2.7kW	= Nominal Capacity in kW
R134a	= Refrigerant
-25/+20°C	= Evaporating Temperature Range
MOP 25°C	= Max. Evaporating Pressure
BP15	= Bleed 15%
430041410300	= Code Number
PS34bar/MWP 493psig	= Max. Working Pressure
BC0200001	= Date Marking

Nominal Capacity

Model	R134a		R407C		R404A/R507C		R290		R448A/449A	
	TR	kW	TR	kW	TR	kW	TR	kW	TR	kW
TA/TAE 0	0.11	0.4	0.16	0.5	0.11	0.38	0.17	0.6	0.15	0.5
TA/TAE 1	0.25	0.9	0.3	1.1	0.21	0.7	0.32	1.2	0.3	1.0
TA/TAE 2	0.5	1.8	0.8	2.7	0.45	1.6	0.74	2.6	0.7	2.5
TA/TAE 3	0.78	2.7	1.1	3.8	0.6	2.1	1.1	3.9	1.0	3.5
TA/TAE 4	1.3	4.6	1.6	5.6	1.2	4.2	1.6	5.6	1.5	5.2
TA/TAE 5	1.9	6.7	2.5	8.6	1.7	6.0	2.4	8.4	2.3	8.0
TA/TAE 6	2.5	8.6	3.2	11.3	2.2	7.7	3.2	11.2	3.0	10.5
TA/TAE 7	3.0	10.5	4.9	16.7	2.6	9.1	4.7	16.5	4.5	15.5

The Nominal capacity is based on:

1. Evaporating Temperature $T_e=5^\circ\text{C}$; 2. Condensing Temperature $T_c=32^\circ\text{C}$; 3. Liquid Temperature $T_l=28^\circ\text{C}$;
4. Static Superheat $SS=4\text{K}$; 5. Opening Superheat $OS=4\text{K}$.

MOP Options

Refrigerant	Range N -40 ~ +10°C	Range HP -25 ~ +20°C MOP +25°C	Range K -25 ~ +10°C MOP +15°C	Range AC -25 ~ +15°C MOP +15°C
R134a	(Without MOP)	6.7 bar	3.9 bar	4.7 bar
R404A	(Without MOP)	12.6 bar	8.3 bar	9.9 bar
R290	(Without MOP)	9.5 bar	6.3 bar	7.4 bar
R407C	(Without MOP)	11.9 bar	6.6 bar	7.8 bar

Note: only the most representative options are present, for other requirements please contact DunAn.

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DunAn

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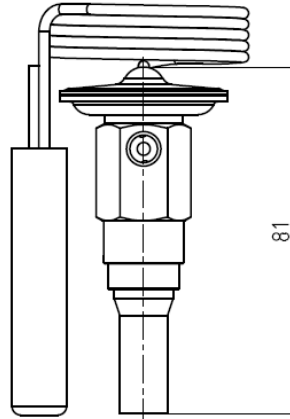
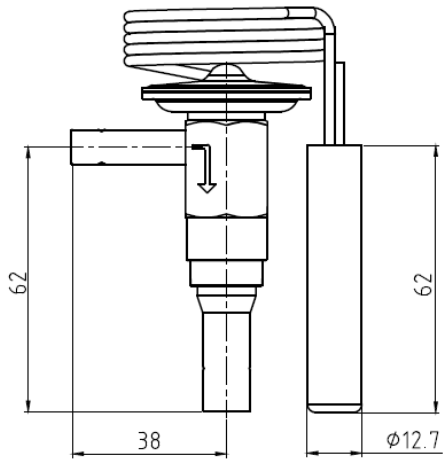
Ordering

Refrigerant	Model	Connection Solder	Code No.	
			Range N = -40 ~ +10°C	
		Inlet X Outlet [in.]	Angleway Internal Equalization	Straightway Internal Equalization
R134a	TAN/TAEN 0	1/4x3/8	430080014300	430080015100
	TAN/TAEN 1	1/4x3/8	430080014400	430080003200
	TAN/TAEN 2	1/4x3/8	430080014500	430080015200
	TAN/TAEN 3	1/4x3/8	430080014600	430080015400
	TAN/TAEN 4	1/4x3/8	430080014700	430080015500
	TAN/TAEN 5	3/8x1/2	430080014800	430080015600
	TAN/TAEN 6	3/8x1/2	430080014900	430080015700
	TAN/TAEN 7	3/8x1/2	430080015000	430080015800
R407C	TAZ/TAEZ 0	1/4x3/8	430080009500	430080010300
	TAZ/TAEZ 1	1/4x3/8	430080009600	430080010400
	TAZ/TAEZ 2	1/4x3/8	430080009700	430080010500
	TAZ/TAEZ 3	1/4x3/8	430080009800	430080010600
	TAZ/TAEZ 4	1/4x3/8	430080005800	430080010700
	TAZ/TAEZ 5	3/8x1/2	430080010000	430080010800
	TAZ/TAEZ 6	3/8x1/2	430080010100	430080010900
	TAZ/TAEZ 7	3/8x1/2	430080010200	430080011000
R404A/R507C	TAS/TAES 0	1/4x3/8	430080012600	430080013500
	TAS/TAES 1	1/4x3/8	430080012800	430080013600
	TAS/TAES 2	1/4x3/8	430080012900	430080013700
	TAS/TAES 3	1/4x3/8	430080013000	430080013800
	TAS/TAES 4	1/4x3/8	430080013100	430080013900
	TAS/TAES 5	3/8x1/2	430080013200	430080014000
	TAS/TAES 6	3/8x1/2	430080013300	430080014100
	TAS/TAES 7	3/8x1/2	430080013400	430080014200
R290	TAP/TAEP 0	1/4x3/8	430080015900	430080016400
	TAP/TAEP 1	1/4x3/8	430080001600	430080002900
	TAP/TAEP 2	1/4x3/8	430080001700	430080003100
	TAP/TAEP 3	1/4x3/8	430080001800	430080004100
	TAP/TAEP 4	1/4x3/8	430080016000	430080004200
	TAP/TAEP 5	3/8x1/2	430080016100	430080016500
	TAP/TAEP 6	3/8x1/2	430080016200	430080016600
	TAP/TAEP 7	3/8x1/2	430080016300	430080016700

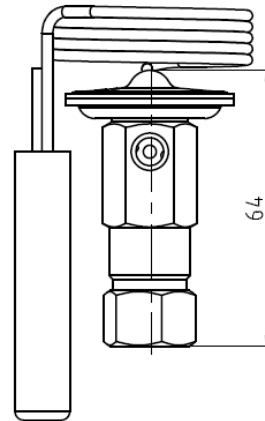
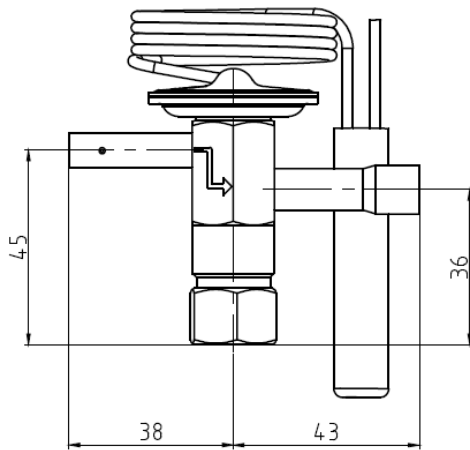
Code numbers listed above refer to standard series. For other requirements, please contact DunAn

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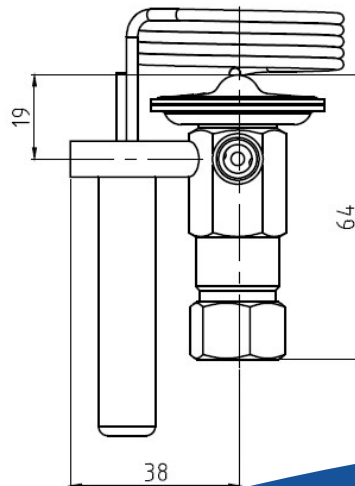
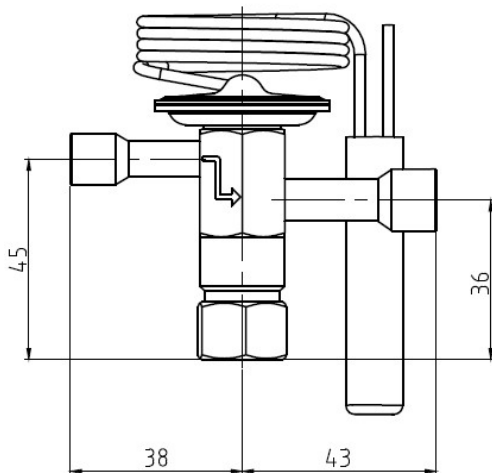
Dimensions and Weight



Angleway, Internal Equalization,
Non-Adjustable
Weight Approx.: 0.19 kg



Straightway, Internal
Equalization, Adjustable
Weight Approx.: 0.21kg



Straightway, External Equalization,
Adjustable
Weight Approx.: 0.21kg