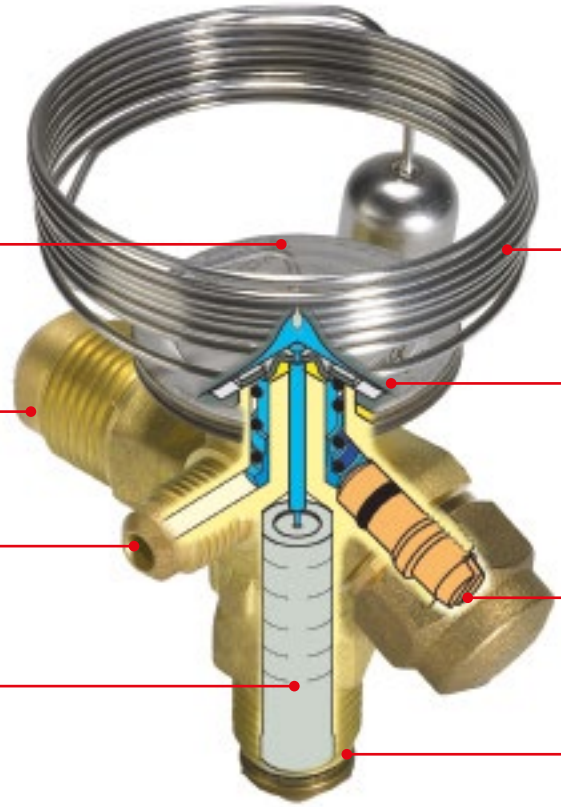
T2 / TE2, Thermostatic expansion valves

T2 / TE2 thermostatic expansion valves are used for liquid injection into evaporators on both refrigeration and air conditioning systems. T2 / TE2 valves are supplied as a parts programme, with separate thermostatic element/valve body and orifice assembly.

Available as angleway valves with flare x flare or flare x solder connections, with internal and external equalisation.

Features
T2 / TE2



Laser-welded power element in stainless steel
- long diaphragm life
- high pressure tolerance and working pressure
- high corrosion resistance

Stainless steel capillary tube and bulb:
- high corrosion resistance
- high strength and vibration resistance

Laser-engraved label

Flare or solder outlet

Flare or solder pressure equalization

Easy adjustment of superheat setting

Interchangeable orifice assembly with dirt protection strainer

Flare inlet
Solder adaptor available as an option

Facts

Applications:
- Traditional refrigeration
- Heat pump systems
- Air conditioning units
- Liquid coolers
- Transport refrigeration

- Applicable to R22 / R407C, R134a, R404A / R507, R407C, R407F, R407A, R448A,R449A, R452A and R513A
  For a fully updated list of approved refrigerants, visit www.products.danfoss.com and search for individual code numbers,where refrigerants are listed as part of product specifications.
- Large temperature range
- Equally applicable to freezing, refrigeration and air conditioning applications

- Interchangeable orifice assembly
  - easy stocking
  - easy capacity matching
  - better service
- Can be supplied with MOP (Max. Operating Pressure)
- Protects the compressor motor against excessive evaporating pressure during normal operation
- Valves for special temperature ranges and refrigerants can be supplied
- Flare / solder adaptor can be supplied

Technical data and ordering

Thermostatic element + *Orifice*

TE2 - External equalization

T2 - Internal equalization

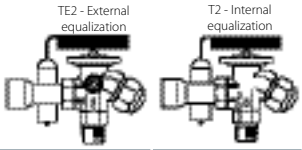
T2 / TE2

Thermostatic element with bulb strap (flare x flare)

Type	Refrigerant	Range		MOP		Pressure equalization Flare		Connection flare inlet × outlet		Code no. Multi pack
		[°C]	[°F]	[°C]	[°F]	[mm]	[in]	[mm]	[in]	
T2	R22 / R407C [1]	-40 – 10	-40 – 50	–	–	–	–	10 × 12	3/8 × 1/2	068Z3206
		-40 – 10	-40 – 50	15	60	–	–	10 × 12	3/8 × 1/2	068Z3208
		-40 – -5	-40 – 25	0	32	–	–	10 × 12	3/8 × 1/2	068Z3224
		-40 – -15	-40 – 5	-10	14	–	–	10 × 12	3/8 × 1/2	068Z3226
		-60 – -25	-75 – -15	–	–	–	–	10 × 12	3/8 × 1/2	068Z3207
		-60 – -25	-75 – -15	-20	-5	–	–	10 × 12	3/8 × 1/2	068Z3228
TE2		-40 – 10	-40 – 50	–	–	6	1/4	10 × 12	3/8 × 1/2	068Z3209
		-40 – 10	-40 – 50	15	60	6	1/4	10 × 12	3/8 × 1/2	068Z3211
		-40 – -5	-40 – 25	0	32	6	1/4	10 × 12	3/8 × 1/2	068Z3225
		-40 – -15	-40 – 5	-10	14	6	1/4	10 × 12	3/8 × 1/2	068Z3227
		-60 – -25	-75 – -15	–	–	6	1/4	10 × 12	3/8 × 1/2	068Z3210
		-60 – -25	-75 – -15	-20	-5	6	1/4	10 × 12	3/8 × 1/2	068Z3229
T2	R407C	-40 – 10	-40 – 50	–	–	–	–	10 × 12	3/8 × 1/2	068Z3496
		-40 – 10	-40 – 50	15	60	–	–	10 × 12	3/8 × 1/2	068Z3516
TE2		-40 – 10	-40 – 50	–	–	6	1/4	10 × 12	3/8 × 1/2	068Z3501
		-40 – 10	-40 – 50	15	60	6	1/4	10 × 12	3/8 × 1/2	068Z3517
T2	R134a	-40 – 10	-40 – 50	–	–	–	–	10 × 12	3/8 × 1/2	068Z3346
		-40 – 10	-40 – 50	15	60	–	–	10 × 12	3/8 × 1/2	068Z3347
		-40 – -5	-40 – 25	0	32	–	–	10 × 12	3/8 × 1/2	068Z3393
		-40 – -15	-40 – 5	-10	14	–	–	10 × 12	3/8 × 1/2	068Z3369
TE2		-40 – 10	-40 – 50	–	–	6	1/4	10 × 12	3/8 × 1/2	068Z3348
		-40 – 10	-40 – 50	15	60	6	1/4	10 × 12	3/8 × 1/2	068Z3349
		-40 – -5	-40 – 25	0	32	6	1/4	10 × 12	3/8 × 1/2	068Z3392
		-40 – -15	-40 – 5	-10	14	6	1/4	10 × 12	3/8 × 1/2	068Z3370
T2	R404A / R507	-40 – 10	-40 – 50	–	–	–	–	10 × 12	3/8 × 1/2	068Z3400
		-40 – 10	-40 – 50	15	60	–	–	10 × 12	3/8 × 1/2	068Z3402
		-40 – -5	-40 – 25	0	32	–	–	10 × 12	3/8 × 1/2	068Z3406
		-40 – -15	-40 – 5	-10	14	–	–	10 × 12	3/8 × 1/2	068Z3408
		-60 – -25	-75 – -15	–	–	–	–	10 × 12	3/8 × 1/2	068Z3401
		-60 – -25	-75 – -15	-20	-5	–	–	10 × 12	3/8 × 1/2	068Z3410
TE2		-40 – 10	-40 – 50	–	–	6	1/4	10 × 12	3/8 × 1/2	068Z3403
		-40 – 10	-40 – 50	15	60	6	1/4	10 × 12	3/8 × 1/2	068Z3405
		-40 – -5	-40 – 25	0	32	6	1/4	10 × 12	3/8 × 1/2	068Z3407
		-40 – -15	-40 – 5	-10	14	6	1/4	10 × 12	3/8 × 1/2	068Z3409
		-60 – -25	-75 – -15	–	–	6	1/4	10 × 12	3/8 × 1/2	068Z3404
		-60 – -25	-75 – -15	-20	-5	6	1/4	10 × 12	3/8 × 1/2	068Z3411
T2	R407F / R407A	-40 – 10	-40 – 50	–	–	–	–	10 × 12	3/8 × 1/2	068Z3715
TE2		-40 – 10	-40 – 50	–	–	6	1/4	10 × 12	3/8 × 1/2	068Z3714
T2	R448A / R449A	-40 – 10	-40 – 50	–	–	–	–	–	3/8 × 1/2	068Z3727
TE2		-40 – 10	-40 – 50	–	–	6	1/4	10 × 12	3/8 × 1/2	068Z3728

[1]) *For R407C plants, please select valves from the dedicated R407C program*
Capillary tube: 1.5 m / 59 in

Technical data and ordering



T2 / TE2

Thermostatic element with bulb strap (flare x solder)

Type	Refrigerant	Range		MOP		Pressure equalization solder		Connection inlet (Flare) × outlet (Solder)		Code no. Multi pack
		[°C]	[°F]	[°C]	[°F]	[mm]	[in]	[mm]	[in]	
T2	R22 / R407C [1]	-40 – 10	-40 – 50	–	–	–	–	–	3/8 × 1/2	068Z3281
		-40 – 10	-40 – 50	–	–	–	–	10 × 12	–	068Z3302
		-40 – 10	-40 – 50	15	60	–	–	–	3/8 × 1/2	068Z3287
		-40 – 10	-40 – 50	15	60	–	–	10 × 12	–	068Z3308
		-60 – -25	-75 – -15	–	–	–	–	–	3/8 × 1/2	068Z3357
		-60 – -25	-75 – -15	–	–	–	–	10 × 12	–	068Z3361
TE2		-40 – 10	-40 – 50	–	–	–	1/4	–	3/8 × 1/2	068Z3284
		-40 – 10	-40 – 50	–	–	6	–	10 × 12	–	068Z3305
		-40 – 10	-40 – 50	15	60	–	1/4	–	3/8 × 1/2	068Z3290
		-40 – 10	-40 – 50	15	60	6	–	10 × 12	–	068Z3311
		-40 – -15	-40 – -5	-10	-15	6	–	10 × 12	–	068Z3367
		-60 – -25	-75 – -15	–	–	–	1/4	–	3/8 × 1/2	068Z3359
		-60 – -25	-75 – -15	–	–	6	–	10 × 12	–	068Z3363
T2	R407C	-40 – 10	-40 – 50	–	–	–	–	10 × 12	–	068Z3502
		-40 – 10	-40 – 50	15	60	–	–	–	3/8 × 1/2	068Z3329
		-40 – 10	-40 – 50	15	60	–	–	10 × 12	–	068Z3514
TE2		-40 – 10	-40 – 50	–	–	–	1/4	–	3/8 × 1/2	068Z3446
		-40 – 10	-40 – 50	–	–	6	–	10 × 12	–	068Z3503
		-40 – 10	-40 – 50	15	60	–	1/4	–	3/8 × 1/2	068Z3447
		-40 – 10	-40 – 50	15	60	6	–	10 × 12	–	068Z3515
T2	R134a	-40 – 10	-40 – 50	–	–	–	–	–	3/8 × 1/2	068Z3383
		-40 – 10	-40 – 50	–	–	–	–	10 × 12	–	068Z3384
		-40 – 10	-40 – 50	15	60	–	–	–	3/8 × 1/2	068Z3387
		-40 – 10	-40 – 50	15	60	–	–	10 × 12	–	068Z3388
TE2		-40 – 10	-40 – 50	–	–	–	1/4	–	3/8 × 1/2	068Z3385
		-40 – 10	-40 – 50	–	–	6	–	10 × 12	–	068Z3386
		-40 – 10	-40 – 50	15	60	–	1/4	–	3/8 × 1/2	068Z3389
		-40 – 10	-40 – 50	15	60	6	–	10 × 12	–	068Z3390
T2	R404A / R507	-40 – 10	-40 – 50	–	–	–	–	–	3/8 × 1/2	068Z3414
		-40 – 10	-40 – 50	–	–	–	–	10 × 12	–	068Z3435
		-40 – 10	-40 – 50	15	60	–	–	–	3/8 × 1/2	068Z3416
		-40 – 10	-40 – 50	15	60	–	–	10×12	–	068Z3423
		-40 – -15	-40 – -5	-10	-15	–	–	–	3/8 × 1/2	068Z3429
		-40 – -15	-40 – -5	-10	-15	–	–	10×12	–	068Z3436
		-60 – -25	-75 – -15	–	–	–	–	–	3/8 × 1/2	068Z3418
		-60 – -25	-75 – -15	–	–	–	–	10 × 12	–	068Z3425
		-60 – -25	-75 – -15	-20	-5	–	–	–	3/8 × 1/2	068Z3420
		-60 – -25	-75 – -15	-20	-5	–	–	10 × 12	–	068Z3427
TE2		-40 – 10	-40 – 50	–	–	–	1/4	–	3/8 × 1/2	068Z3415
		-40 – 10	-40 – 50	–	–	6	–	10 × 12	–	068Z3422
		-40 – 10	-40 – 50	15	60	–	1/4	–	3/8 × 1/2	068Z3417
		-40 – 10	-40 – 50	15	60	6	–	10×12	–	068Z3424
		-40 – -15	-40 – -5	-10	-15	–	1/4	–	3/8 × 1/2	068Z3430
		-40 – -15	-40 – -5	-10	-15	6	–	10×12	–	068Z3437
		-60 – -25	-75 – -15	–	–	–	1/4	–	3/8 × 1/2	068Z3419
		-60 – -25	-75 – -15	–	–	6	–	10 × 12	–	068Z3426
		-60 – -25	-75 – -15	-20	-5	–	1/4	–	3/8 × 1/2	068Z3421
		-60 – -25	-75 – -15	-20	-5	6	–	10 × 12	–	068Z3428
T2	R407F / R407A	-40 – 10	-40 – 50	–	–	–	–	–	3/8 × 1/2	068Z3716
TE2		-40 – 10	-40 – 50	–	–	–	1/4	–	3/8 × 1/2	068Z3713
T2	R448A / R449A	-40 – 10	-40 – 50	–	–	–	–	–	3/8 × 1/2	068Z3729
TE2		-40 – 10	-40 – 50	–	–	–	1/4	–	3/8 × 1/2	068Z3730
T2	R452A	-40 – 10	-40 – 50	–	–	–	–	–	3/8 × 1/2	068Z3806
TE2		-40 – 10	-40 – 50	–	–	–	1/4	–	3/8 × 1/2	068Z3807
T2		-40 – 10	-40 – 50	–	–	–	–	10 × 12	–	068Z3808
TE2		-40 – 10	-40 – 50	–	–	6	–	10 × 12	–	068Z3809

[1]) *For R407C plants, please select valves from the dedicated R407C program*
Capillary tube: 1.5 m / 59 in

Technical data and ordering

T2 / TE2

Orifice assembly for flare version

Range: -40 – 10 °C / -40 – 50 °F

Type	Orifice	R22		R407C		R134a		R513A		R404A / R507		R407A		R407F		R448A		R449A		R452A		Code no.
		[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	
T2 / TE2	0X	0.9	0.25	0.92	0.26	0.68	0.19	0.58	0.16	0.64	0.18	0.88	0.25	1	0.28	0.9	0.26	0.88	0.25	0.69	0.20	068-2002
	00	1.8	0.51	1.8	0.51	1.2	0.34	1	0.29	1.3	0.37	1.7	0.49	2	0.56	1.8	0.51	1.7	0.49	1.3	0.38	068-2003
	01	3.5	1	3.5	1	2.1	0.59	1.8	0.51	2.6	0.75	3.4	1	3.9	1.1	3.5	1	3.4	0.97	2.7	0.78	068-2010
	02	4.7	1.3	4.8	1.4	2.6	0.73	2.2	0.62	3.7	1	4.7	1.3	5.4	1.5	4.8	1.4	4.6	1.3	3.8	1.1	068-2015
	03	8	2.3	8.1	2.3	4.3	1.2	3.7	1	6.3	1.8	8	2.3	9.2	2.6	8.1	2.3	7.9	2.3	6.4	1.8	068-2006
	04	12.1	3.4	12.4	3.5	6.4	1.8	5.4	1.5	9.9	2.8	12.4	3.5	14.3	4.1	12.6	3.6	12.1	3.5	10.0	2.9	068-2007
	05	16.7	4.8	16.5	4.7	8.4	2.4	6.9	2	13	3.7	16.3	4.6	19	5.4	16.3	4.6	15.7	4.5	12.6	3.6	068-2008
	06	19.7	5.6	19.7	5.6	10.1	2.9	8.6	2.5	15.5	4.4	19.6	5.6	22.9	6.5	19.8	5.7	19.1	5.5	15.8	4.5	068-2009

The rated capacity is based on:
Evaporating temperature t_e = 4.4 °C / 40 °F
Condensing temperature t_c = 38 °C / 100 °F
Refrigerant temperature ahead of valve t_l = 37 °C / 98 °F

T2 / TE2

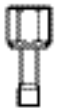
Orifice assembly for solder adapter version

Range: -40 – 10 °C / -40 – 50 °F

Type	Orifice	R22		R407C		R134a		R513A		R404A / R507		R407A		R407F		R448A		R449A		R452A		Code no.
		[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	
T2 / TE2	0X	0.9	0.25	0.92	0.26	0.68	0.19	0.58	0.16	0.64	0.18	0.88	0.25	1	0.28	0.9	0.26	0.88	0.25	0.69	0.20	068-2089
	00	1.8	0.51	1.8	0.51	1.2	0.34	1	0.29	1.3	0.37	1.7	0.49	2	0.56	1.8	0.51	1.7	0.49	1.3	0.38	068-2090
	01	3.5	1	3.5	1	2.1	0.59	1.8	0.51	2.6	0.75	3.4	1	3.9	1.1	3.5	1	3.4	0.97	2.7	0.78	068-2091
	02	4.7	1.3	4.8	1.4	2.6	0.73	2.2	0.62	3.7	1	4.7	1.3	5.4	1.5	4.8	1.4	4.6	1.3	3.8	1.1	068-2092
	03	8	2.3	8.1	2.3	4.3	1.2	3.7	1	6.3	1.8	8	2.3	9.2	2.6	8.1	2.3	7.9	2.3	6.4	1.8	068-2093
	04	12.1	3.4	12.4	3.5	6.4	1.8	5.4	1.5	9.9	2.8	12.4	3.5	14.3	4.1	12.6	3.6	12.1	3.5	10.0	2.9	068-2094
	05	16.7	4.8	16.5	4.7	8.4	2.4	6.9	2	13	3.7	16.3	4.6	19	5.4	16.3	4.6	15.7	4.5	12.6	3.6	068-2095
	06	19.7	5.6	19.7	5.6	10.1	2.9	8.6	2.5	15.5	4.4	19.6	5.6	22.9	6.5	19.8	5.7	19.1	5.5	15.8	4.5	068-2096

The rated capacity is based on:
Evaporating temperature t_e = 4.4 °C / 40 °F
Condensing temperature t_c = 38 °C / 100 °F
Refrigerant temperature ahead of valve t_l = 37 °C / 98 °F

Solder adaptor without orifice assembly



Connection – ODF solder	Code no.
1/4 in	068-2062
6 mm	068-2063
6 mm	068-4101 [1])
3/8 in	068-2060
10 mm	068-2061
10 mm	068-4100 [1])

[1]) *Including filter.*

Filter as accessories

Filter type	Code no.
For flare connection	068-0003
For solder adaptor	068-0015

The solder adaptor is for use with thermostatic expansion valves T2 and TE2.
When the solder adaptor is fitted correctly it meets the sealing requirements of DIN 8964. The flare orifice in T2 and TE2 can be used with a solder adaptor when the orifice filter is replaced with a specific filter intended for solder adaptors. Only in this way the sealing requirements of DIN 8964 can be fulfilled.
Solder adaptors for filter driers (FSA) must not be used on the T2 inlet.

Bulb strap as accessories

Type	Length	Max. diameter of suction line		Code no.
	[mm]	[mm]	[in]	
T2 / TE2 Accessories	110	28	1 1/8	068U3507
	190	50	2	068U3508