

Why use a **capillary tube** when you can ensure **peak performance** with a TXV?



Designed for
small refrigeration
applications with a
wide
temperature range

The Danfoss TD1 range of thermostatic expansion valves are designed for small commercial refrigeration applications. They have been proven to achieve energy savings and quicker pull-down time when compared to a capillary tube. Ensure your equipment runs at peak performance with a Danfoss TD1.

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Incorporating Danfoss' proven, robust, stainless steel capillary tube and sensing bulb design, the TD1 features the patented Danfoss bulb strap to provide maximum heat transfer to the bulb for a fast and precise valve reaction to temperature changes in the evaporator and to ensure a secure bulb installation.

The TD1 portfolio is UL approved and is available in a straight through configuration for refrigerants R-134a, R-404A, R-290, R-448A, R-449A, and R513a (additional refrigerants may be available upon request). The TD1 is suitable for many traditional applications, including those using capillary tubes, including: GDMs, Ice cream cabinets, small ice machines, refrigerated beverage dispensers, specialty cooling, transport refrigeration, reach-in fridges, small chillers, and small refrigeration units.

TD1/TDE1 Thermostatic Expansion Valves

| R-134a ¹ | | | | | | | | | |
|---------------------|---------------------|---------------------|--------------|-------|------------------|-------------------|-------------------------|------------|------------------|
| Model no. | Capacity* in TR MBP | Capacity* in TR LBP | Orifice size | Range | Inlet size (in.) | Outlet size (in.) | Equalization size (in.) | Superheat | Danfoss Code no. |
| TD1-0 R134a | 1/8 | 3/50 | 0 | N | 3/8 | 1/2 | — | Adjustable | 068N7671 |
| TD1-1 R134a | 1/5 | 1/10 | 1 | | | | | | 068N7672 |
| TD1-2 R134a | 1/3 | 1/5 | 2 | | | | | | 068N7673 |
| TD1-3 R134a | 1/2 | 1/3 | 3 | | | | | | 068N7674 |
| TD1-4 R134a | 3/4 | 1/2 | 4 | | | | | | 068N7675 |
| TD1-5 R134a | 1 | 1/2 | 5 | | | | 068N7676 | | |
| TDE1-3 R134a | 1/2 | 1/3 | 3 | | | | 068N7690 | | |
| TDE1-4 R134a | 3/4 | 1/2 | 4 | | | | 1/4 | | 068N7677 |
| TDE1-5 R134a | 1 | 1/2 | 5 | | | | 068N7678 | | |
| R-404A | | | | | | | | | |
| Model no. | Capacity* TR in MBP | Capacity* in TR LBP | Orifice size | Range | Inlet size (in.) | Outlet size (in.) | Equalization size (in.) | Superheat | Danfoss Code no. |
| TD1-0 R404A | 1/4 | 1/10 | 0 | N | 3/8 | 1/2 | — | Adjustable | 068N7679 |
| TD1-1 R404A | 1/3 | 1/6 | 1 | | | | | | 068N7680 |
| TD1-2 R404A | 1/2 | 2/7 | 2 | | | | | | 068N7663 |
| TD1-3 R404A | 2/3 | 1/2 | 3 | | | | | | 068N7664 |
| TD1-4 R404A | 1 | 3/4 | 4 | | | | | | 068N7665 |
| TD1-5 R404A | 1 1/2 | 3/4 | 5 | | | | 068N7666 | | |
| TDE1-3 R404A | 2/3 | 1/2 | 3 | | | | 068N7667 | | |
| TDE1-4 R404A | 1 | 3/4 | 4 | | | | 1/4 | | 068N7668 |
| TDE1-5 R404A | 1 1/2 | 7/8 | 5 | | | | 068N7669 | | |
| R-290 | | | | | | | | | |
| Model no. | Capacity* in TR MBP | Capacity* in TR LBP | Orifice size | Range | Inlet size (in.) | Outlet size (in.) | Equalization size (in.) | Superheat | Danfoss Code no. |
| TD1-0 R290 | 1/4 | 1/8 | 0 | N | 3/8 | 1/2 | — | Adjustable | 068N7681 |
| TD1-1 R290 | 1/3 | 1/5 | 1 | | | | | | 068N7682 |
| TD1-2 R290 | 1/2 | 3/8 | 2 | | | | | | 068N7683 |
| TD1-3 R290 | 3/4 | 1/2 | 3 | | | | | | 068N7684 |
| TD1-4 R290 | 1 1/4 | 3/4 | 4 | | | | | | 068N7685 |
| TD1-5 R290 | 2 | 1 | 5 | | | | 068N7686 | | |
| TDE1-3 R290 | 3/4 | 1/2 | 3 | | | | 068N7687 | | |
| TDE1-4 R290 | 1 1/4 | 3/4 | 4 | | | | 1/4 | | 068N7688 |
| TDE1-5 R290 | 2 | 1 | 5 | | | | 068N7689 | | |

* The rated capacity is based on: Evaporating temp. Te = +41 °F MBP/-20 °F LBP / Condensing temp. Tc = +90 °F / Refrigerant temp. ahead of the value = +82 °F
Range N: -40/+50 °F evaporating temperature. For refrigerants not listed here, please contact your Danfoss representative.

¹ Code Nos. also qualified for R-513a but capacities listed are for R-134a. See Coolsector®2 for exact capacities at your selected conditions.

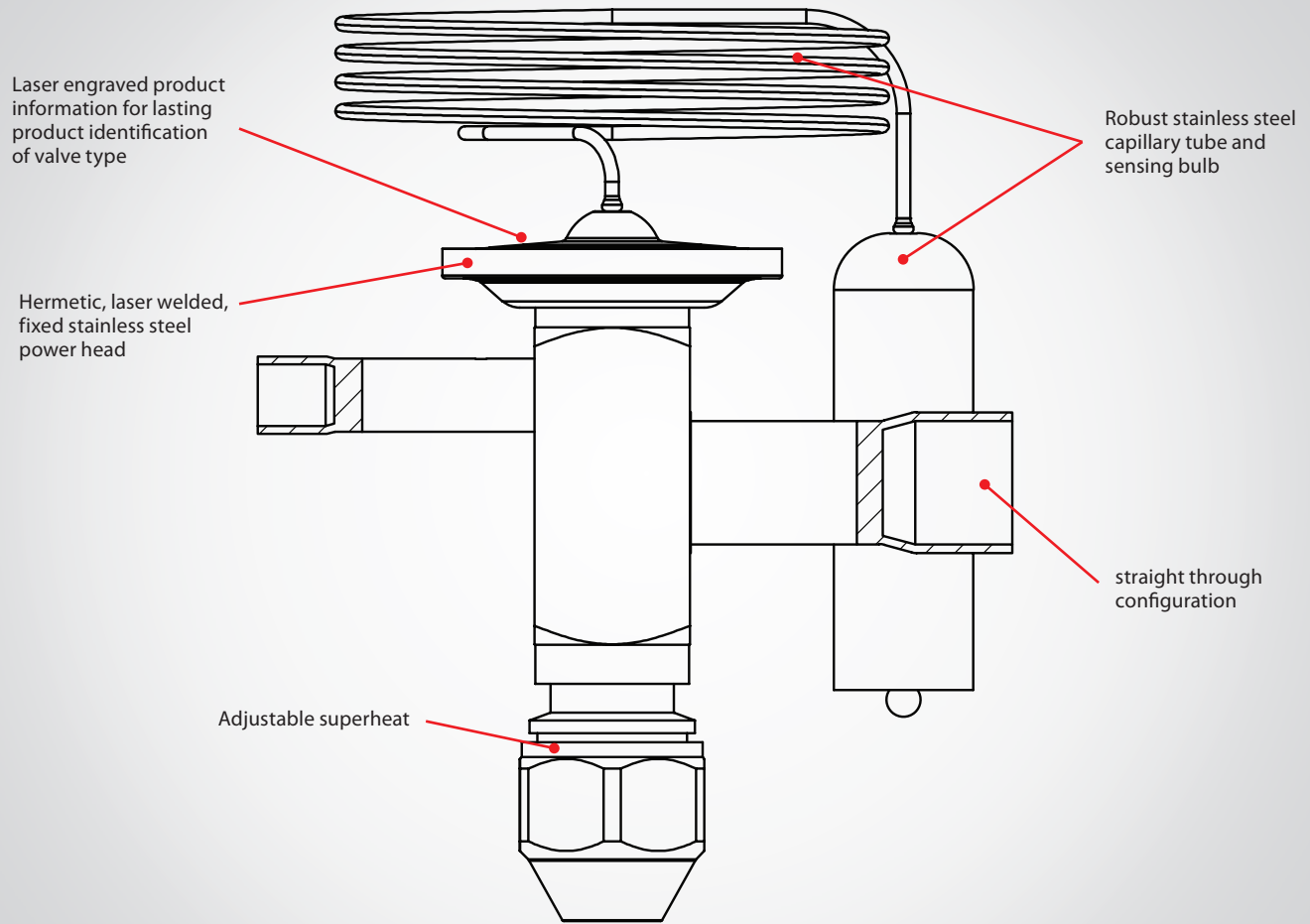
R-448A/R-449A

| Model no. | Capacity* in TR MBP | Capacity* in TR LBP | Orifice size | Range | Inlet size (in.) | Outlet size (in.) | Equalization size (in.) | Superheat | Danfoss Code no. |
|--------------------|---------------------|---------------------|--------------|-------|------------------|-------------------|-------------------------|------------|------------------|
| TD1-0 R448A/R449A | ¼ | ⅛ | 0 | N | ¾ | ½ | — | Adjustable | 068N7691 |
| TD1-1 R448A/R449A | ⅓ | ⅕ | 1 | | | | | | 068N7692 |
| TD1-2 R448A/R449A | ⅔ | ⅓ | 2 | | | | | | 068N7693 |
| TD1-3 R448A/R449A | ¾ | ⅔ | 3 | | | | | | 068N7694 |
| TD1-4 R448A/R449A | 1 ¼ | ¾ | 4 | | | | | | 068N7695 |
| TD1-5 R448A/R449A | 2 ⅛ | 1 ⅙ | 5 | | | | | | 068N7696 |
| TDE1-3 R448A/R449A | 1 | ⅔ | 3 | | | | | | 068N7697 |
| TDE1-4 R448A/R449A | 1 ¼ | ¾ | 4 | | | | | | 068N7698 |
| TDE1-5 R448A/R449A | 2 ⅛ | 1 ⅙ | 5 | | | | | | 068N7699 |

*The rated capacity is based on:
 Evaporating temp. Te = +41 °F MBP/−20 °F LBP
 Condensing temp. Tc = +90 °F
 Refrigerant temp. ahead of the valve = +82 °F
 Range N: −40–+50 °F

Spare Parts

| Code no. | Description | Pack mode | Order multiple |
|-----------------|--|------------|----------------|
| 068U3505 | Bulb strap; 0.4 mm thick, max. 28 mm diameter tube | Industrial | 45 |
| 068U3507 | Bulb strap; 0.4 mm thick, max. 28 mm diameter tube | Single | 1 |



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