Danfoss KP 98 Thermostat Type Installation Guide

Contents

Danfoss KP 98 Thermostat Type

Specifications:

- **Thermostat Type**: KP 98 (Cross ambient)
- **Enclosure and Tightness**: IP30 in accordance with EN 60529 / IEC 529
- **Application:** UL-requirements – 120 V a.c.: 16 FLA, 96 LRA; 240 V a.c.: 8 FLA, 48 LRA; 240 V d.c.: 12 W pilot duty

Product Usage Instructions

Thermostat (Cross Ambient = Adsorption Charged)
Fig. 1 – Component Identification

1. **Setting spindle, "OIL" (LT)** – Setting of max. oil temperature
2. **Main arm**
3. **Setting spindle, "HT"** – Setting of max. high-pressure gas temperature
4. **Locking plate**

Technical Data

- **Function**
  The function at a rise or drop in temperature appears in Figs. 8 and 9.
- **Permissible Ambient Temperature (Thermostat Housing)** -40 to 65 °C (up to 80 °C for a maximum of 2 hours)
- **Max. Permissible Bulb Temperatures**
  - **"OIL" sensor (060L113166):** 150 °C
  - **"HT" bulb:** 250 °C
- **Enclosure and Tightness**
  - IP30 in accordance with **EN 60529** / **IEC 529**

- This is achieved when the unit is mounted on a flat panel or a bracket that covers all open holes.

- **Contact Load**

  Refer to the unit's scale.
- **UL Application Requirements:**
  - **120 V a.c.:** 16 FLA, 96 LRA
  - **240 V a.c.:** 8 FLA, 48 LRA
  - **240 V d.c.:** 12 W pilot duty

Mounting Instructions

- **Bulb Placement**
  - Refer to **Figs. 3, 4, and 6** for correct positioning.
- **Mounting Brackets (Fig. 2)**
  - Two types of brackets with screws and washers (ordered separately).
  - If using different screws, ensure they do not project more than **1.5 mm** into the unit.
- **Compressor Installation**
  - **Fig. 3:** Compressor with KP 98
  - **Fig. 4:** Sensor fitted to tube
  - **Fig. 5:** Clamp (ordered separately)
  - **Fig. 6:** Bulb in pocket
  - **Fig. 7:** Sensor pocket (ordered separately)
    - **Tip:** Use heat-conducting paste (Code No. 041E0110) to improve heat transfer between bulb and pocket.

Electrical Connections

Fig. 8 – Wiring Warning
CAUTION: Disconnect power supply before wiring or servicing. Do not touch live parts with fingers or tools.

Cable Entry Options

- **Fig. 9:** Plastic entry (6–14 mm cable)
- **Fig. 10:** Pg 13.5 screwed cable connection with special nut (6–14 mm cable, ordered separately)

  For 8–16 mm cable, use a standard Pg 16 connection.

Testing Procedure
Fig. 11 – Testing

- Tilt the main arm (3)
- Simultaneously press the "RESET" knobs
- **Note:** Only use the described testing method

Setting Instructions

Fig. 8 and 12 – Scale Definitions

- **START:** Starting temperature
- **STOP:** Stop temperature
- **DIFF:** Differential

Setting Max Temperatures

- Use “OIL” and “HT” scales
- **“OIL” Differential:** Fixed at 14 °C
- **“HT” Differential:** Fixed at 25 °C

Restart After Shutdown

- Press the “RESET” buttons
- Restart only occurs once the temperature drops by the set differential value

Locking and Sealing

- **Fig. 13 and 14 – Locking Plate**
  Lock both “OIL” and “HT” spindles using the locking plate
- **Fig. 15 – Sealing Screw**
  Use sealing screw (ordered separately) if sealing is required

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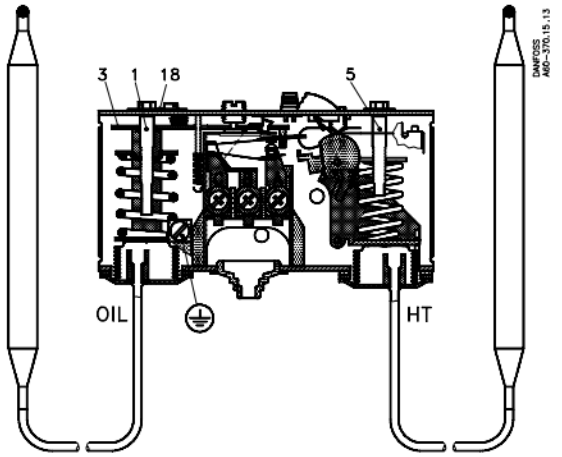

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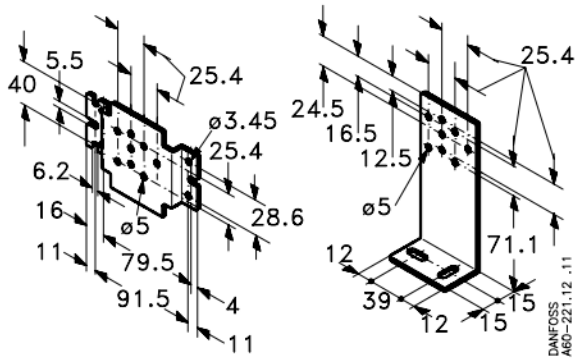

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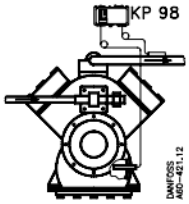

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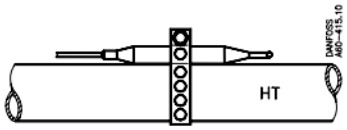

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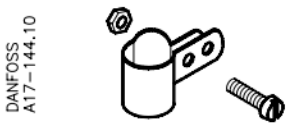

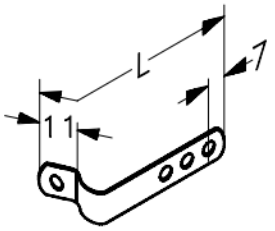

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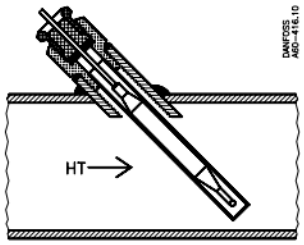

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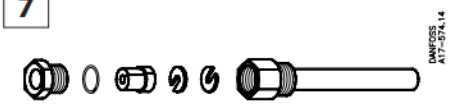

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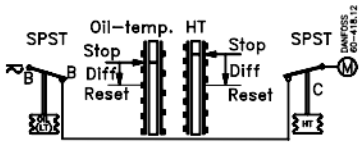

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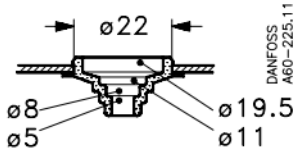

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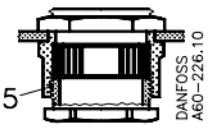

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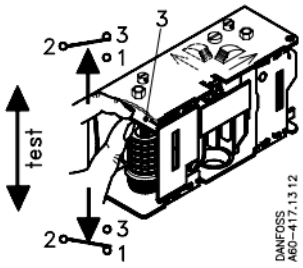

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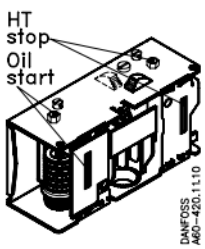

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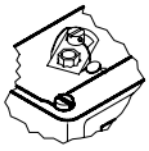

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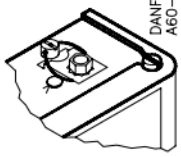

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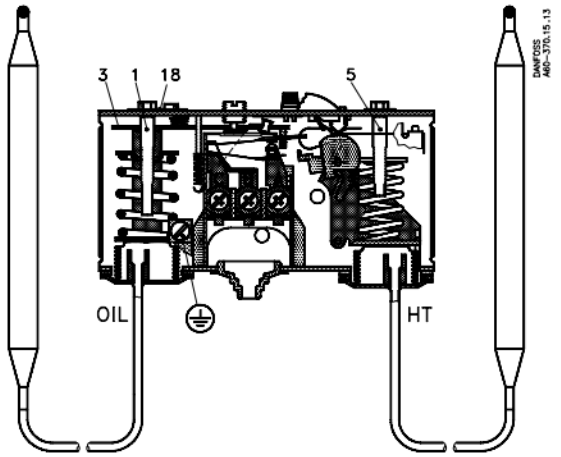

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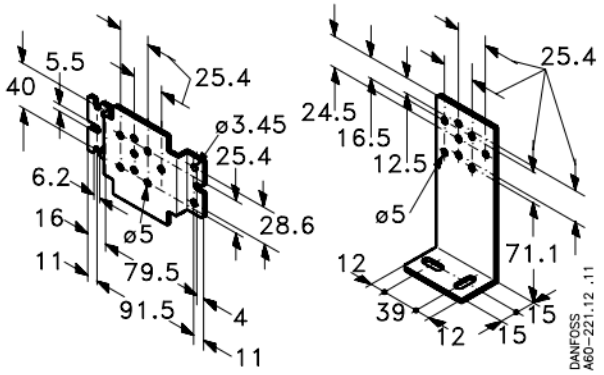

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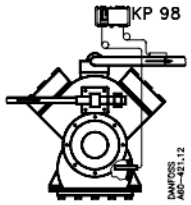

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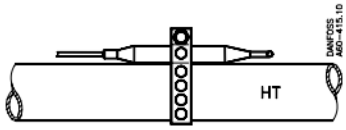

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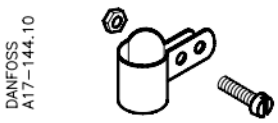

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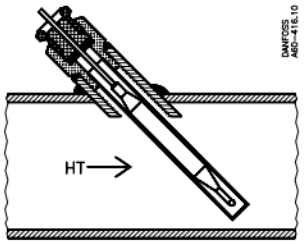

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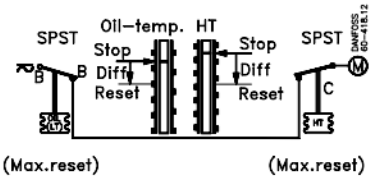

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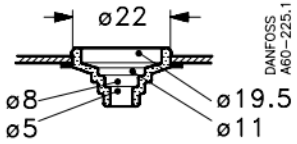

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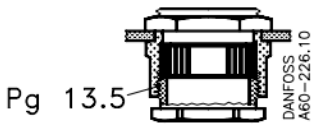

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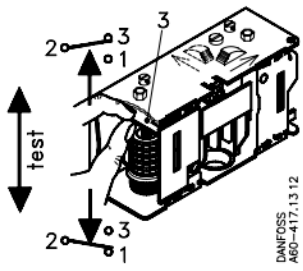

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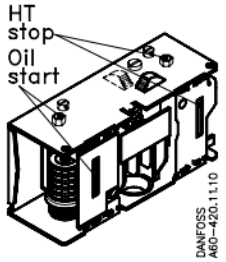

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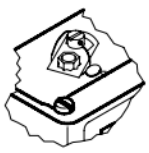

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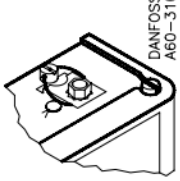

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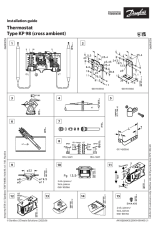
FAQ

Q: How do I improve heat transfer from the sensor pocket to the bulb?
A: To improve heat transfer, use a heat conducting paste (Code No. 041E0110) when installing the sensor pocket.

Documents / Resources

	Danfoss KP 98 Thermostat Type [pdf] Installation Guide KP 98 Thermostat Type, KP 98, Thermostat Type, Type

References

- User Manual