



KIT CAVITY TEMPERATURE SENSOR

100196-1, 2, 3,4 & 100034, 100034-1.



Installation and servicing of Danfoss Turbocor® compressors by qualified and product trained personnel only. Follow these instructions and sound refrigeration/electrical/servicing practices relating to installation, commissioning, maintenance and service.

<p>Consult the appropriate DTC Service Manual on turbocor.danfoss.com for detailed service instructions.</p>	<p>Never power compressor without covers in place and secured.</p> <p>Removing the mains input cover will expose you to a voltage hazard of up to 575V. Ensure the mains input power is off and locked out before removing cover.</p> <p>Before removing top cover, wait at least 20 minutes after isolating AC power to allow the high voltage capacitors to discharge.</p>	<p>Always wear appropriately rated safety equipment when working around equipment and/or components energized with high voltage.</p> <p>This equipment contains hazardous voltages that can cause serious injury or death.</p>	<p>Recover all refrigerant from compressor in accordance with local codes and ensure pressure is fully vented before the removal of refrigerant containing components.</p>
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1 - Introduction

CAVITY TEMPERATURE SENSOR Removal and installation - CAVITY TEMPERATURE SENSOR is located behind backplane. To access, backplane must be removed. ENSURE Refrigerant Pressure in Compressor is zero before sensor removal.

2 - Removing Refrigerant from Compressor:

- Recover refrigerant from compressor in accordance with local codes and practices.

3 - Accessing:

1. Isolate and lockout 3 phase compressor power.
2. Remove service side cover.
3. Remove BMCC and Serial Driver modules and set aside.
4. Remove screws that secure the PWM Module to the main compressor housing, and pull module from housing. Do NOT disconnect bearing feed cables from feedthroughs.
5. Disconnect and remove all connectors from back plane, including earth lead under right hand top of backplanes circuit board.
6. Remove the two upper screws that secure the Backplane assembly to housing. Remove screw from lower right of circuit board. Refer to the following figure. Do NOT remove screw from center bottom or top left of the backplane circuit board.
7. Withdraw the Backplane Assembly from the service-side housing and set aside.
8. Using a (24 mm/15/16") wrench or slotted socket, remove the motor cavity sensor. Refer to the following figure.

4 - 100196-1 Installation Preparation:

⚠ Note: if installing part 100196-1, this component is factory installed with Loctite, cold removal will damage housing threads and may require compressor replacement to rectify if the following procedure is not carefully followed.

1. Remove insulation from around sensor.
2. Apply heat to housing in circular motion around the sensor using a MAPP Gas torch or similar.
3. Continue to apply heat until housing is WARM to touch (NOT HOT).
4. Wait 5 minutes for heat to soak Loctite.
5. Using 9/16 wrench carefully unscrew sensor, using forward and reverse.
6. If excessive force is required, repeat from step 3.

5 - Motor Cavity Sensor Installation Instruction:

1. Clean housing, 'O' ring and groove in sensor head. Apply lube to 'O' ring, housing and into groove. Install 'O' ring into groove.
2. Insert the sensor and screw home by hand.
3. Using a 24 mm/ (15/16)" combination wrench or slotted socket, tighten the sensor to 10 Nm.
4. Leak test and evacuate compressor in accordance with local codes and practices Ensure that pressure does not open check valve(s) and allow non condensable to enter system.




6 - Backplane installation Instruction:

1. Position the plastic stand-offs to the main compressor housing and loosely install backplane housing screws.
2. Install backplane grounding screw in lower R/H corner of backplane circuit board. Install metal (not plastic) washer under screw head. Tighten to 3Nm. Tighten remaining screws.
3. Attach the grounding ring terminal from the IGBT interface cable to the screw at the upper right corner of the Backplane and tighten to 3 ± 0.5 Nm torque.
4. Reconnect all plugs.
 - NOTE: To ensure correct connection. Verify printed codes on the cable plugs match with the cable sockets on the Backplane.

7 - PWM, BMCC and Serial Driver modules Installation Instruction:

- NOTE: Ensure heat transfer paste present between PWM and housing.
1. Align the PWM Amplifier Module's heat sink with the two guide pins in the main compressor housing.
 2. Insert the PWM Amplifier Module into the connector on the Backplane.
 3. Secure the PWM Amplifier Module's heat sink to the main compressor housing with three screws.
 4. Verify that the module's heat sink is firmly seated against the main compressor housing.
 5. Install BMCC and Serial Driver modules.
 6. Test run compressor and check for proper cavity temperature indication.

8 - Kit Contents

QTY	Part(s) Description	Picture(s)
1	CAVITY TEMPERATURE SENSOR	
1	'O' RING or SEAL For 100034, it is a SEAL-BONDED 1/8" BSP-SELF CENTRING.	
1	LUBRICATION-SUPER "O" LUBE-2G	

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