TP-1 Sensor Replacement Options

Because Danfoss can no longer purchase these legacy sensors from our vendor, we are forced to use other options to replace sensors already installed in customer sites.

Depending on the current front-end controller being used and input boards installed, several options exist:

TP-1 sensor

Controller + Input Board Type Options

RC/EC/ERC-1000 with parallel I/O	Since no parallel TP-2L cards are available, the front end system would need to be upgraded to a modern controller, such as the Danfoss AK 255 or 355.
RC/EC/ERC-1000 with 8-channel serial I/O modules	Add one Serial TP-2L module to the existing I/O loop for new Danfoss TP-2L sensors (p/n 084N3016), or convert an existing module from Reg Temp to TP-2L by adding jumpers to J2 and J3. No programming changes are needed.
RC-2000, EC/ERC-1000 with Serial 8-channel modules	Add one Serial TP-2L module to the existing I/O loop for new Danfoss TP-2L sensors (p/n 084N3016), or convert an existing module from Reg Temp to TP-2L by adding jumpers to J2 and J3. No programming changes are needed.
RC-2000 with Serial 16-channel boards	Replace TP-1 with Danfoss TP-2L (p/n 084N3016). Change input board jumper from TP-1 to TP-2 configuration. Record all locations in RC-2000 where sensor is assigned. Remove sensor Brd-Pt assignments. Change sensor type in System / Board Channel Setup from TP-1 to TP-2. Reassign sensors, verify readings.
EC/ERC-1000 with Serial 16-channel boards in Dual-8 mode	Either add an 8-channel module configured for TP-2 sensors, add a 16-channel board with at least one-half configured for TP-2 sensors, or convert one-half of an existing board from TP-1 to TP-2 sensors (with jumper changes). No programming changes are needed.
AKCESS 55 with SI8 boards	Replace TP-1 sensors with Danfoss PT-1000/AKS-11, (p/n 084N0027). Remove any existing sensor resistors from the SI8 board; change the Sensor Type in Board and Points.

Controller + Input Board Type Options

AKCESS 55 with AK2 I/O Modules	Replace TP-1 sensors with Danfoss PT-1000/AKS-11, (p/n 084N0027). Remove any existing 10K Ω resistors from the input point; change the Sensor Type in Board and Points from ECI TP-1 to PT-1000.
AK2-SC 255 with SI8 boards	Replace TP-1 sensors with Danfoss PT-1000/AKS-11, (p/n 084N0027). Remove any existing sensor resistors from the SI8 board; change the Sensor Type in Board and Points from ECI TP-1 to PT-1000.
AK2-SC 255 with ECI Gateway	**Either** replace TP-1 with Danfoss TP-2L (p/n 084N3016), change input board jumper from TP-1 to TP-2 configuration, and change the Sensor Type in Board and Points from ECI TP-1 to PT-1000 **-- OR --** add an AK2 power supply (p/n 080z0055), AK2 comm module (p/n 080z0061) and 8AI module (p/n 080z0007) with a new communication loop to an available LON Works port of the AK2-SC 255. Move sensor wiring to the new 8AI module, replace ECI TP-1 sensor with PT-1000/AKS 11 (p/n 084N0027). Change Sensor Type and Board-Pt in Board and Pts screen.
AK2-SC255 with AK2 I/O Modules	Replace TP-1 sensors with Danfoss PT-1000/AKS-11, (p/n 084N0027). Remove any existing 10K Ω resistors from the input point; change the Sensor Type in Board and Points from ECI TP-1 to PT-1000.

Replacement sensor details:

Type	Part #	Wire Length	Polarity sensitive?
TP-2L*	084N3016	18.0 feet	N
PT-1000 / AKS 11	084N0027	11.5 feet	N
PT-1000 / AKS 11	084N0028	18.0 feet	N
PT-1000 / AKS 11	084N0029	27.5 feet	N

* The Danfoss TP-2L sensor can also be used as a replacement Com-Trol regular temperature sensor.