LONMARK®
Functional Profile:
Temperature Sensor
Overview

This document describes the profile of an HVAC temperature sensor object. The profile supports the standard Node Object.

Temperature Sensor Object Details

The following diagram details the mandatory and optional network variables, as well as the configuration properties for the HVAC temperature sensor functional profile.

Figure 1.2 HVAC Temperature Functional Profile

Mandatory Network Variables

HVAC Temperature Output

network output SNVT_temp_p nvoHVACTemp
This output variable reports the temperature of the sensor using the HVAC temperature SNVT.

**Valid Range**
see SNVT_temp_p

**Default Value**
None

**Remark**
The actual sensor hardware can be of any type.

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### Mandatory Configuration Properties

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**Max Send Time**

```plaintext
network input config SNVT_time_sec nciMaxSendtime;
```

Indicates the maximum period of time that expires before the sensor object automatically updates all its output variables.

**Valid Range**
see SNVT_time_sec

**Default Value**
300 seconds

**SCPT Reference**
SCPTmaxSendTime(49)

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**Min Send Time**

```plaintext
network input config SNVT_time_sec nciMinsendtime;
```

Indicates the minimum period between output network variable transitions.

**Valid Range**
see SNVT_time_sec

**Default Value**
5 seconds

**SCPT Reference**
SCPTminSendTime(52)

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**Send on Delta**

```plaintext
network input config SNVT_temp_p nciMinDelta;
```

Indicates the minimum temperature change required to update the output network network variables.
Valid Range
see SNVT_temp_p

Default Value
.3 degree Celsius

SCPT Reference
SCPTminDeltaTemp(64)

Optional Network Variables

Fixed Point Temperature Output
network output  SNVT_temp nvoFixPtTemp
This output variable reports the temperature of the sensor using the Fixed
point temperature SNVT.

Valid Range
see SNVT_temp

Default Value
None

Remark
The actual sensor hardware can be of any type.

Floating Point Temperature Output
network output  SNVT_temp_f nvoFloatTemp
This output variable reports the temperature of the sensor using the Floating
point temperature SNVT.

Valid Range
see SNVT_temp_f

Default Value
None

Remark
The actual sensor hardware can be of any type.

Optional Configuration Properties

Temperature Offset
network input config SNVT_temp_p nciTmpOffset;

This configuration property is used to calibrate the external hardware by specifying the level that the nvoHVACTemp output should adopt based on the current data from the hardware. This offset applies after the use of any translation table or gain factor.

**Valid Range**

The valid range is any value within the defined limits of the SNVT_temp_p.

**Default Value**

The default value is manufacturer specific.

**SCPT Reference**

SCPToffsetTemp(70)

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**Power-up State**

All configuration properties which are stored are recalled during power up. The output variables are set to the temperature of the sensor.