Version 1.0
Temperature Sensor: 1040

LONMARK® Functional Profile: Temperature Sensor

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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.

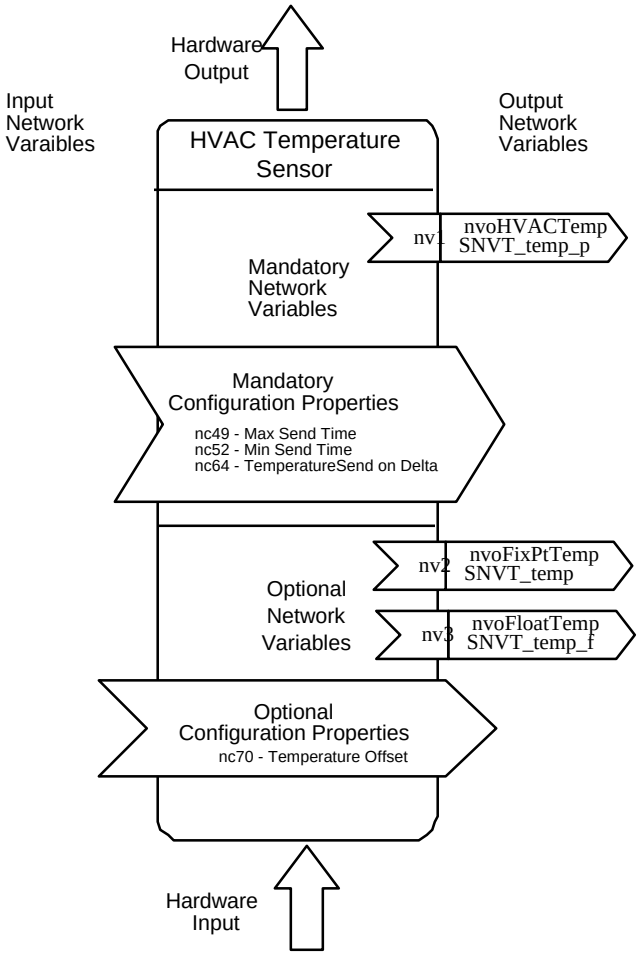

Figure 1.2 HVAC Temperature Functional Profile

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.

Mandatory Configuration Properties

Max Send Time
`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)

Min Send Time
`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)

Send on Delta
`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.

OptionalConfiguration 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)

Power-up State

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