LONMARK®
Functional Profile:
Relative Humidity Sensor

Overview

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

Relative Humidity Sensor Object Details

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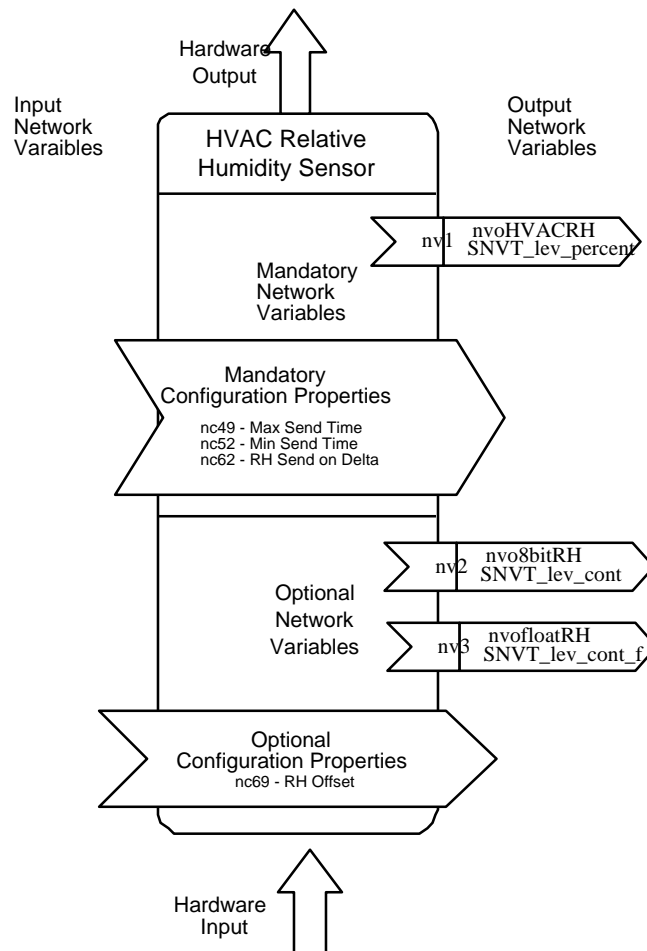

Figure 1.2 Relative Humidity Sensor Functional Profile

Mandatory Network Variables

Relative Humidity Output

network output SNVT_lev_percent nvoHVACRH;

This output variable reports the relative humidity detected by the sensor.

Valid Range

see SNVT_lev_percent

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_lev_percent nciRHMinDelta;
```

Indicates the minimum relative humidity change required to update the output network network variables.

Valid Range

see SNVT_lev_percent

Default Value

1 percent RH

SCPT Reference

SCPTminDeltaRH (62)

Optional Network Variables

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8 bit Relative Humidity Output

```
network output  SNVT_lev_cont nvo8bitRH;
```

This output variable reports the relative humidity detected by the sensor.

Valid Range
see SNVT_lev_cont

Default Value
None

Remark
The actual sensor hardware can be of any type.

Floating Point Relative Humidity Output

```
network output  SNVT_lev_cont_f nvofloatRH;
```

This output variable reports the relative humidity detected by the sensor.

Valid Range
see SNVT_lev_cont

Default Value
None

Remark
The actual sensor hardware can be of any type.

Optinal Configuration Properties

RH Offset

```
network input config SNVT_lev_percent nciRHOffset;
```

This configuration property is used to calibrate the external hardware by specifying the level that the `nvoHVACRH` 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_lev_percent.

Default Value

The default value is manufacturer specific.

SCPT Reference

SCPToffsetRH(69)

Power-up State

All configuration properties which are stored are recalled during power up. The ouput variables are set to the relative humidity detected by the sensor.