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.

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### Mandatory Configuration Properties

#### Max Send Time

```c
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

```c
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

```c
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)

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**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.

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**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.

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**Optional Configuration Properties**

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**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)

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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 relative humidity detected by the sensor.