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Version 1.0  
July 1999  
Frost Sensor : 1042



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# LONMARK<sup>®</sup>

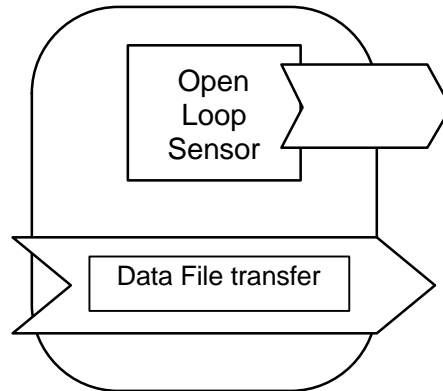
## Functional Profile:

### Frost Sensor

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## Overview

This document describes the profile for a frost sensor object. This profile is used for devices that can detect the presence of frost.

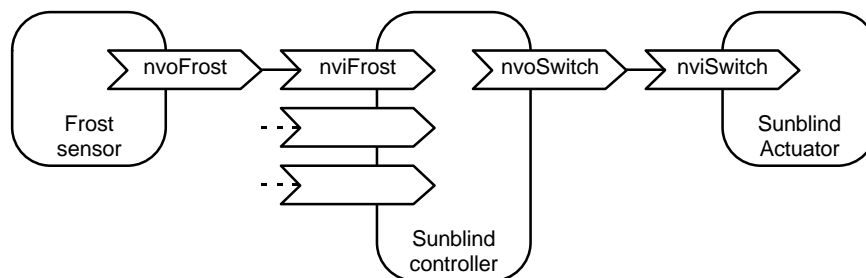


**Figure 1** Frost Sensor Object Functional Profile

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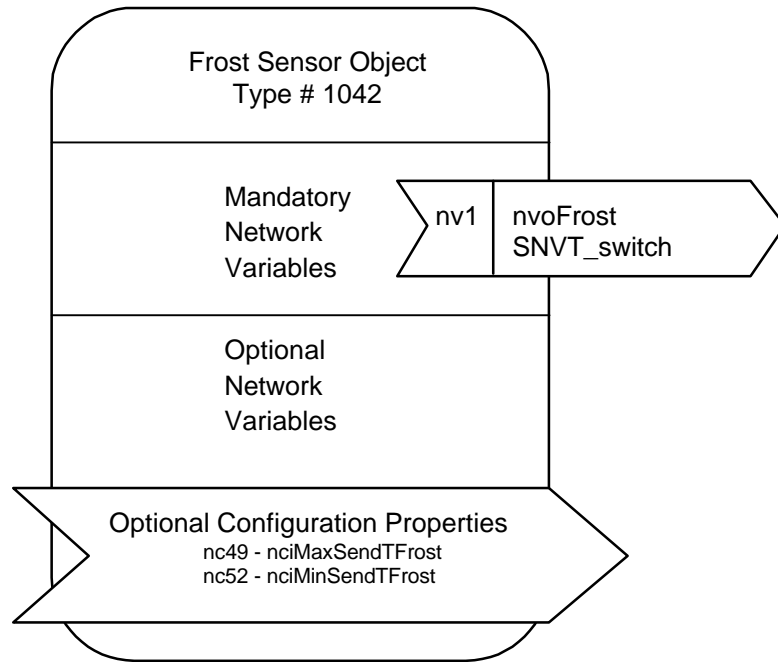
## Example Usage

Typically the output of this frost sensor is connected to controllers integrated in a sunblind management system.



**Figure 2** Example usage of a Frost Sensor Object

## Object details



**Figure 3** Object details

**Table 1** SNVT Details

NV # (M/O)*	Name	In/Out	SNVT Type (SNVT Index)	Class	Description
1 (M)	nvoFrost	Out	SNVT_switch (95)	I/O	Presence or absence of frost
nc49 (M)	nci MaxSend TFrost	-	SNVT_time_sec (107)	config	Send Heartbeat SCPTmaxSendTime
nc52 (M)	nci MinSend TFrost	-	SNVT_time_sec (107)	config	Minimum Send Time (Send Throttle) SCPTminSendTime

\* M = mandatory, O = optional

**Table 2** SCPT Details

<b>SCPT Index (M/O)*</b>	<b>Name</b>	<b>Association **</b>	<b>Description</b>
nci49 (O)	SCPTmaxSendTime nciMaxSendTFrost SNVT_time_sec (107)	nv1 (M)	maximum period of time that expires before the Frost Sensor object will automatically update NV
nci52 (O)	SCPTminSendTime nciMinSendTFrost SNVT_time_sec (107)	nv1 (M)	minimum period of time that expires before the Frost Sensor object will automatically update NV

\* M = mandatory, O = optional

\*\* List of NVs to which this configuration property applies. NV index = 0 means configuration property applies to the object as a whole (nv0).

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## *Mandatory Network Variables*

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### **Frost Data**

```
network output SNVT_switch nvoFrost;
```

This output network variable provides the state of the frost detector.

### *Valid Range*

value field	state field	meaning
0%	0	no frost
100%	1	frost

All other values in the 2 fields are considered as undefined detection.

### *When Transmitted*

Whenever hardware state changes.

### *Update Rate*

Defined by configuration parameters.

### *Default Service Type*

Defined by manufacturer.

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## *Configuration Properties*

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### **Frost Max Send Time**

```
network input config SNVT_time_sec nciMaxSendTFrost;
```

This input configuration network variable is used to control the maximum period that expires before the object automatically transmits the current value of the nvoFrost output network variable.

### *Valid Range*

0 - 6553.4 s

### *Default Value*

Defined by the manufacturer.

### *SCPT Reference*

SCPTmaxSendTime #49.

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### **Frost Min Send Time**

```
network input config SNVT_time_sec nciMinSendTFrost;
```

This input configuration network variable is used to control the minimum period between output network variable transmissions (maximum transmission rate).

*Valid Range*

0 .. 6553.4 s

*Default Value*

Defined by the manufacturer.

*SCPT Reference*

SCPTminSendTime #52.

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## Power-up State

None specified.

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## Boundary and Error Conditions

None.

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