

LITROL™

### Programmable Switch Module

For integrated operation of lighting ;  
with LONMARK Association-Certified device



- **Rotary dimmer switch module**
- **Indicating LED for status of the switch**
- **Flush mounting in an American standard electrical wall box**
- **LONMARK Association-Certified device**
- **Power supply via the two-wire bus (LONWORKS Network, LPT-10)**

### Application

The PSM-ARD1 is a rotary type dimmer switch only for dimming control applications. Rotary switch can On/Off light and change illumination of the light.

### Technical data

Power requirements	PSM-ARD1 receives its power via the LONWORKS Network in accordance with specification LPT-10	1 LPUL(Unit Load)
Functions	Selectable switch input channel LED status indicator	On(REDF), Off(GREEN)
Interfaces	Interface type Transceiver Baud rate	LON (LONMARK) LPT-10 78 kBit/s
Cable connection	Terminals LONWORKS Network (Polarity insensitive)	Screw terminals 2-wire twisted pair 0.2 ~ 1.0 mm <sup>2</sup>
Hardware	Processor type Processor clock Memory	TMPN3120FE3M 5MHz 20KB(18K ROM, 2K RAM)
Industry standards	<b>CE</b> conformity to EMC directive Emission Immunity LONMARK conformance	89/336/EEC EN 55011 EN 50082-2 Guidelines Version 3.2

## LonWorks® Interoperability

LONMARK ® Version 3.2 interoperability

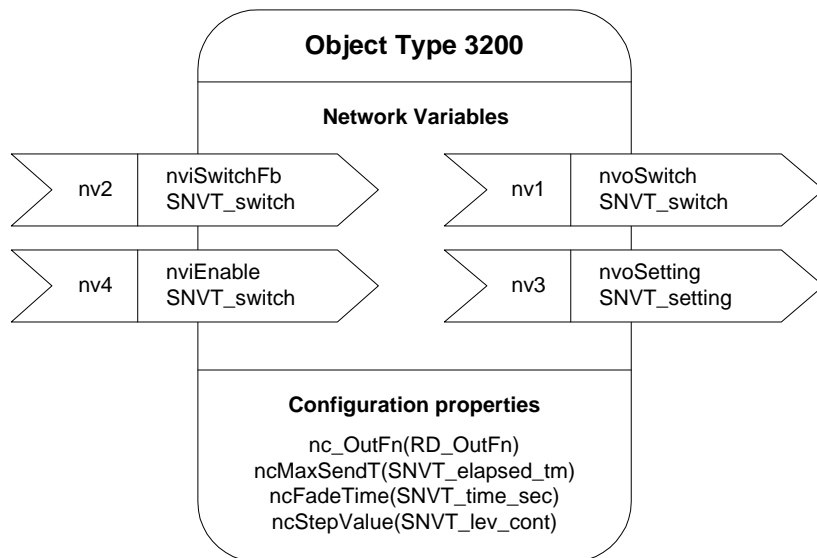
Standard program ID	80:00:72:20:00:06:04:20
External Interface File	PSMARD_xx.XIF
Plug-In Software	PSMARD_xx.EXE

## Objects

<b>Object #0</b>	
Node object	Status request support: RQ_NORMAL for switch Object
<b>Object #1</b>	
Switch object	Functional profile 3200 version 1.0 SNVT_switch for output, feedback input and enable switch input SNVT_setting output for manual control of controllers Configuration properties for output value and output function

## Object #1

Switch (RSW1)



## Network Variables

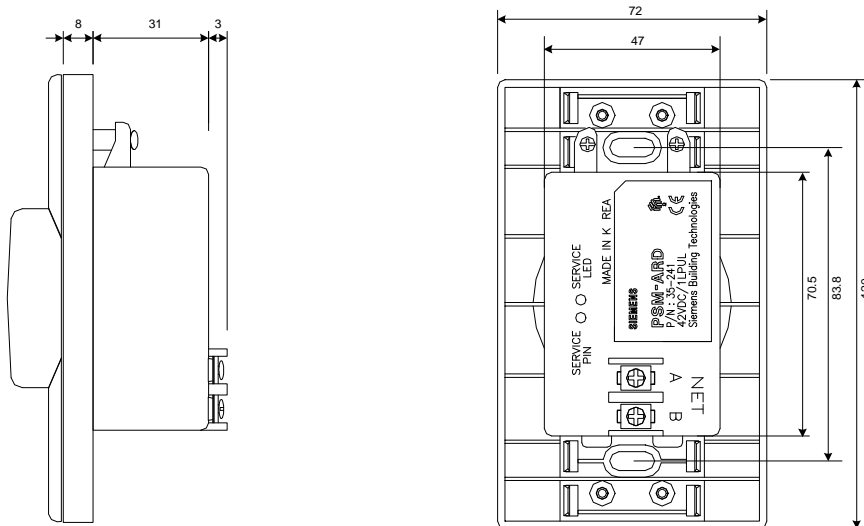
<b>nvoSwitch</b>	Switch output. Value 0-100% in 0.5% increments and state On/Off
<b>nvoSetting</b>	Setting output. Valid ranges are ON, OFF, UP and DOWN. The range for UP and DOWN is 0 to 50%
<b>nviSwitchFb</b>	Switch feedback input
<b>nviEnable</b>	PSM-ARD1 is enable when the nviEnable is On(state = 1)

## Configuration Properties

<b>ncOutFn</b>	Selects an output function <b>DEFAULT</b> - Control for Dimming Actuator. Single touch for the On/Off function, double touch for the FadeOn/ FadeOff function <b>MANOVR</b> - Control for Dimming Controller. Single touch for the On/Off function, double touch for the Manual Override On/ Manual Override Off function <b>SETTING</b> - Control for Dimming Controller. Single touch for the SET_ON/ SET_OFF function
<b>ncMaxSendT</b>	Time between subsequent updates. Range 0min 0sec ~ 59min 59sec. Default = 0 sec
<b>ncFadeTime</b>	Fade time. Range 10sec ~ 60sec, Default = 0sec
<b>ncStepValue</b>	Step value for up/down ramps. Range 0.5 ~ 10%. Default = 0.5%

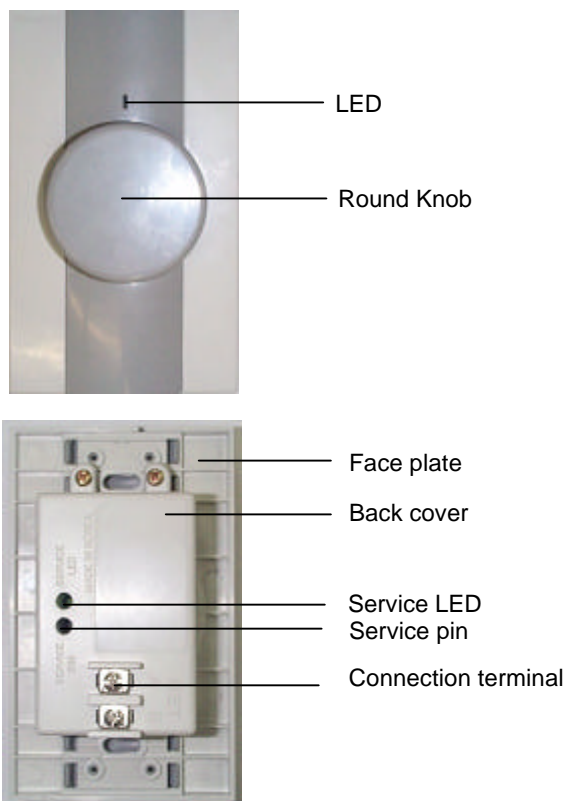
## Dimension

All dimensions in mm



## Mechanical design

The PSM-ARD1 comprises a back cover, a face plate and a rotary switch. The device also has a service Pin/LED, a status indicating LED and connection terminals for NET A/B. The service LED and service pin are behind the rotary knob.



### Service LED

This LED shows the overall status of the LonWorks device. When the device application is not configured, this LED flashes green and off. When the device application is configured, the LED goes off.

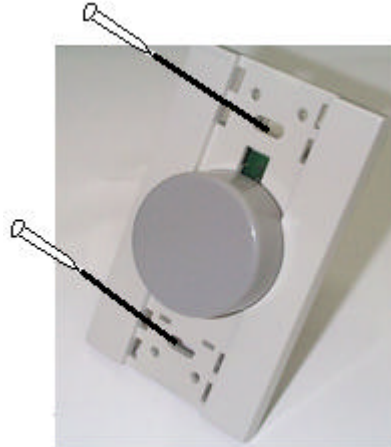
### Service pin

The service pin is used to identify the device at commissioning. When the service pin is pressed, program ID and LonWorks Unique ID (Neuron ID) contained in the device are transmitted to the commissioning or service tools.

## Mounting notes

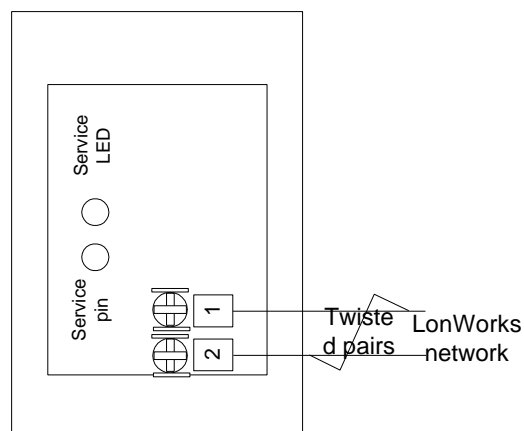
The device can be mounted in any orientation and fixed as follows:

Two drill holes are provided for screw-mounting.



## Connection terminals

You have to only connect a LonWorks network cable to connection terminal.



## Installation Instruction

1. Mount the PSM-ARD1 in the required location by firmly fixing to the wall with a minimum of two screws. (See mounting notes)
2. Connect the cable as per connection terminals. (See connection terminals)
3. Once the connections are completed, you must commission the device using LonWorks commissioning tool. (like as Echelon's LonMaker for Windows or SBT's Robust Manager )
4. Once the device is successfully added in the LonWorks network, you have to check the following.  
"The status indicating LED is indicated by 5 flashes by **Wink** command."
5. If you want to set unconfigured state of the device, press the "Service pin" during 10 seconds.

## Reference

Indicating LED for status

Status	DEFAULT	MANOVR	SETTING
ON	RED	RED	RED
OFF	GREEN	GREEN	GREEN
Fade On/Off	ORANGE	X	ORANGE
MANOvr Off	X	ORANGE	X

## Ordering information

<b>Model</b>	<b>Description</b>	<b>P/N</b>	<b>Remark</b>
PSM-ARD1	Programmable Switch Module, American Standard, 1 Rotary Knob for Dimming, for LonMark	35-241	
<b>Accessories</b>			
R-Knob	Rotary knob for Dimming	3352411-060	
Upper Cvr	Upper cover for PSM-ARD1	3352411-058	
Lower Cvr	Lower cover for PSM-ARD1	3352411-059	
Face plate	Face plate for PSM-ARD1	3352411-056	

\*note : The minimum ordering quantity is 50pcs for Accessories.