

# NATURE SWITCH-INDOOR

## Light Switching Simplified

Indoor lighting is an essential need for all areas like offices, corridors, work shops, shopping malls, bus shelters, railway stations, hotel lobbies, receptions, halls, homes, parking areas, covered walk ways and practically every other area covered by a roof.

Most of the covered areas are designed intelligently to receive sun light to the extent possible during the day. The artificial lighting needs to be switched ON only when the natural illumination goes below a certain level during the day time caused due to rain, cloud, or other obstructions to the natural light. The lighting needs to be switched OFF whenever sufficient natural light is available.

Different areas need different illumination levels as per the task. For example a parking area may need about 20 lux, a corridor may need about 40 lux, a bus shelter may need about 60 lux, a railway platform may need about 100 lux, a general work shop may need 150 lux, an office may need 200 lux and a shopping mall may need about 300 lux. Manually monitoring the actual lux level and switching the lighting load in the indoors is very difficult and is prone to errors. Late switching OFF is a common problem leading to energy wastage.

NATURE SWITCH-INDOOR is specially designed for automatic switching of indoor lighting as per the lux level selected. The NS-INDOOR will automatically switch ON the lighting when ever the illumination level falls below the selected level and will automatically switch OFF the lighting load when the natural illumination goes beyond the selected level. It employs an advanced patented Multi Spectral Sensor technology for reliable and dependable operation in the indoors. **NS-INDOOR is not meant for window less areas not receiving natural light. For example operation theater in a hospital or window less store rooms.**

### SALIENT FEATURES

- ⇒ Automatic Switching ON at below the selected lux level.
- ⇒ Automatic Switching OFF at about 1.5 times the selected lux level.
- ⇒ No need of seasonal resetting. Tuned by the Nature.
- ⇒ Wide operating Voltage range from 150 to 280 volts.
- ⇒ Automatic High Voltage sense trip and auto reset.
- ⇒ Automatic Over load sense trip recheck and latch.
- ⇒ Immunity to dust, fog, and moisture.
- ⇒ Immunity to artificial light.
- ⇒ Degree of protection conforms to IP65

### BENEFITS

- ⇒ Problem free operation of the indoor lighting when needed..
- ⇒ Elimination of energy wastage leading to savings.
- ⇒ Definite and reliable switching to ensure task illumination.
- ⇒ No clock settings or corrections, hence hassle free.
- ⇒ Operational settings valid for life, hence no attendance.
- ⇒ No seasonal corrections and hence attention free.

ENERGY SAVED  
IS  
ENERGY GENERATED



### GENERAL SPECIFICATIONS:

NATURE SWITCH- INDOOR is a **multi spectral sensor** based device for automatic control of **indoor** lighting. It is an electronic device which can be **connected to AC mains**. It's enclosure conforms to IP65 and is made of special engineering plastics providing protection from rust, electric shock, termites, dust, **water**, and solar radiation. It provides options for selection of the switching **ON** based on **lux level**. The selections for Continuous output ON and Continuous output OFF are also provided to facilitate verification and maintenance.

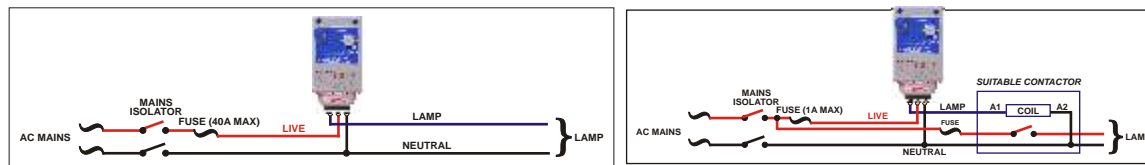
### ELECTRICAL and OPERATIONAL SPECIFICATIONS:

- |                                       |   |
|---------------------------------------|---|
| 1. Operating Voltage Range            | : 150 to 300 VAC, 50-60 Hz                            |
| 2. Selectable Illuminance Levels      | : 20, 40, 60, 80, 100, 150, 200, 300, 400 and 500 lux |
| 3. Max. Lighting Load                 | : 2kW or 10 Amp which ever is less.                   |
| 5. Switching Endurance                | : Minimum 20,000 cycles at 10 Amp.                    |
| 6. Automatic High Voltage trip levels | : > 280 volts AC $\pm$ 2%                             |
| 6. Automatic High Voltage reset level | : < 270 volts AC $\pm$ 2%                             |
| 7. Automatic Over load Trip level     | : > 15 Amps $\pm$ 10%                                 |
| 8. Override options                   | : Cont. ON and cont. OFF                              |
| 9..Switch OFF to Switch ON ratio      | : 1.5 :1 (OFF level = 150% of ON level)               |

Note: The actual illumination at the time of switching may vary due to a variety of factors like field of view, spectral composition of the light source, uniformity of the field etc.

### NATURE SWITCH-INDOOR Electrical Connections

Nature Switch Indoor can be adapted for direct load switching of upto the rated load. For higher loads a suitable contactor may be selected and the NS-INDOOR can be used to drive the coil of the contactor.



### THE GENERAL LUX LEVELS FOR INDOOR AREAS

Indoor areas need artificial illumination to aid human visibility. Different indoor areas need different levels of illumination dependant on the task to be carried out. Given below are the lux levels generally adopted for indoor areas. These are only to act as a guide and the user has to go by his judgement.

- |  |                 |
|--|-----------------|
| 1. Parking area not requiring a visual task of a detail              | 20 to 100 lux   |
| 2. Corridor meant for general passage                                | 40 to 100 lux   |
| 3. Indoor storage area not requiring a special visual study          | : 50 to 100 lux |
| 4. Office work area requiring a normal visual study of the documents | 200 to 400 lux  |
| 5. Work shop general area requiring a moderate visual detail         | 100 to 300 lux  |
| 6..Work shop involving a visual task of minor detail                 | 300 to 1000 lux |

Mfd. In India by:

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