# Products Guide Lighting Control 



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Make the most of your energy
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## Occupancy Sensors



## Occupancy Sensors

Schneider Electric helps building owners achieve energy savings and energy code compliance with sensors that are easy to select, install and commission. Employing passive infrared (PIR), ultrasonic and dual technology to accurately detect occupancy and control lighting loads, occupancy sensors automatically shut-off lighting in unoccupied areas eliminating waste, reducing energy costs and meeting code requirements. Schneider Electric innovations help building owners not only comply with energy codes, but they also maximize energy savings.

- Adaptive Technology: This technology employs advanced algorithms to achieve convenient energy savings and reduced lamp and ballast maintenance.
- Integral light level sensors maximize energy savings in day-lit areas by holding off artificial lighting when adequate natural light is available.
- Walk-through mode detects brief periods of occupancy in private offices, allowing the sensor to shut-off lighting with less time delay.
- Lamp saver mode alternates the A- and B-loads in rooms using 50/50 bi-level lighting control to maximize lamp life and reduce maintenance.
- Isolated relays may be used to communicate with other control systems, such as building automation and energy management systems that control other building systems, like HVAC and lighting, to further maximize energy savings.

Schneider Electric makes lighting control easy with a full line of versatile occupancy sensors.

## Wall Switch

Occupancy Sensor Auto/Manual On

Schneider Electric Wall Switch Occupancy Sensors employ the latest passive infrared (PIR) technology to automatically control lighting in offices, private restrooms and employee break rooms.

Each Sensor employs a special $180^{\circ}$ multi-segmented lens and PIR motion detector circuit to detect motion. This unit will automatically switch the lights off after a preset delay if no motion is detected.

Schneider Electric Wall Switch Occupancy Sensor fits in place of existing wall switches, connecting to existing active line and ground wiring similar to a typical wall switch. No neutral or minimum load is required.

To assure long relay life, Schneider Electric has developed a low energy switch circuit to assure maximum contact life. These sensors are compatible with electronic and magnetic ballast loads, and require no minimum load.

For maximum energy savings, the Schneider Electric Wall Switch Occupancy Sensor with Manual-On requires the user to switch on lighting manually by pressing the button on the front. Employing a special $180^{\circ}$ multi-segmented lens and PIR motion sensor, the sensor reliably detects occupancy to keep lights on while the room is occupied.


Wall Switch Occupancy Sensor

Product Features

- Available in white, ivory and light almond with matching decorator wall plate cover
- Auto On/Auto Off
- Manual bypass
- 120 or 277 Vac input (no neutral required)
- No power pack required
- No minimum load
- $180^{\circ}$ field of view (Up to 1000 sq. ft.)
- User adjustable time delay from 15 second 30 minutes
- Red LED motion indicator blinks to indicate motion detection
- Suitable for use on all electronic and magnetic ballasts
- Furnished with (3) $\times 6$ inch external wires (pig tails)
- UL® and cUL Listed
- Five-year warranty


## Wall Switch Residential Wall Switch Vacancy Sensor

The Schneider Electric Residential Wall Switch Vacancy Sensor directly replaces standard light switches in bathrooms, garages, laundry rooms and utility rooms in accordance with Title 24 requirements for residential lighting.

The Vacancy Sensor operates just like a standard light switch, requiring a button press to turn lights on. Lights may be turned off with a button press or the sensor will turn off lighting automatically when the area is unoccupied Employing passive infrared (PIR) technology, the sensor reliably detects when the area has been vacated then turns off the lighting automatically after a fixed time delay of 30 minutes.

The Vacancy Sensor features a 'grace period'. If the sensor should happen to turn off lighting while the area is occupied, the sensor will monitor the area, and turn lighting back on automatically if motion is detected within 30 seconds of the initial shutoff. Great for retrofits, the Vacancy Sensor fits in existing wall boxes using existing wiring and requires no adjustment.

## Technical Information

| Input | $120 \mathrm{Vac} \pm 10 \% 60 \mathrm{~Hz}$ |
| :--- | :--- |
| Output | 120 Vac <br> -1000 W max. incandescent load <br> -1000 VA max. ballast load <br> $-1 / 4 \mathrm{hp}$ max. motor load |
| Operating Environment | $32^{\circ} \mathrm{F}-122^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}-50^{\circ} \mathrm{C}\right)$ |
| Humidity | $0-90 \%$ max. relative humidity non-condensing |
| Standards | UL and cUL Listed <br> FCC Part 15, Home and Office Use (Class B) <br> Title 24 Certified |

*For Diagram see technical section page 18

| Catalog Number | Description |
| :--- | :--- |
| SLSPWS120VW | White |
| SLSPWS120VI | Ivory |
| SLSPWS120VL | Light Almond |



Residential Wall Switch Vacancy Sensor, Light Almond

Product Features

- No user time delay and sensitivity adjustments necessary
- Available in white, ivory, and light almond
- Furnished with cover plate
- Manual On/Manual Off or Automatic Off operation
- No neutral or minimum load required
- Rated for both 120 V incandescent and fluorescent lighting
- Title 242005 Residential Lighting requirements, Sec. 150(k)
- No override on
- Manual-on only (no auto-on mode)
- 30 minute time delay
- $180^{\circ}$ motion detection up to 300 sq. ft. (minor motion)
- 30 second grace period


## Commercial Grade Occupancy Sensor PIR Single and Dual Circuit Wall Switch

Schneider Electric Single Circuit PIR Wall Switch Occupancy Sensor with Light Level features passive infrared (PIR) technology to conveniently control lighting in offices, private bathrooms, utility rooms and employee break rooms. Low profile sensor available in white, ivory, gray, light almond and black with color-matched segmented lens to meet any décor need.

Adaptive Technology: New technology employs advanced algorithms to achieve convenient energy savings and reduced lamp and ballast maintenance.

Walk-Through Mode: To maximize energy savings, the sensor detects when areas are briefly occupied as a result of a person walking through and turns off lighting based on a shorter time delay.

Light Level Sensor Mode: Each sensor includes an adjustable light level sensor to hold off artificial lighting when adequate natural light is present. When natural light levels drop below the threshold, the sensor will turn on artificial lighting in occupied spaces.

Lamp Saver Mode: (Dual Circuit Wall Switch) When the lamp saver feature is enabled, the sensor automatically alternates which circuit responds to motion. The result is more predictable lamp life and reduced maintenance.

The dual circuit sensor easily replaces two wall switches using existing wiring with no wiring modifications required. Optional 2 -gang wall switch cover plates available in matching colors. These sensors do not require a neutral connection or minimum load, making it great for retrofits. Easily replaces an existing wall switch using existing wiring - no wiring modifications required. Matching wall switch cover plate makes retrofits clean and simple.

Technical Information

| Input | $120-277 \mathrm{Vac} \pm 10 \% 50 / 60 \mathrm{~Hz}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Output | 120 Vac |  | 277 Vac |  |
|  | 1000 W max. tungsten incandescent load $1 / 4$ hp max. motor load 277 Vac 1000 VA max. ballast load |  | 1800 VA max. ballast load |  |
| Operating Temperature | $32^{\circ} \mathrm{F}-122^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}-50^{\circ} \mathrm{C}\right)$ |  |  |  |
| Humidity | 0-90\% max. relative humidity non-condensing |  |  |  |
| Time Delay Adjustment Normal Walk Through Mode Test Mode | $0.5-30$ minutes <br> 2 minutes if no activity is detected after 30 seconds 15 seconds |  |  |  |
| Light Level adjustment | 0.5-250 FC |  |  |  |
| Detection | $180^{\circ}$ passive infrared (PIR) |  |  |  |
| Audible Alert | Selectable |  |  |  |
| Service Switch | OFF/Auto/ON |  |  |  |
| Manual Operation | Push-button ON/OFF |  |  |  |
| Lens | Impact Resistant |  |  |  |
| Relay Switching | $0^{\circ} \pm 500 \mathrm{uS}$ |  |  |  |
| Standard | UL and cUL Listed, FCC Part 15/Home and Office Use (Class B), Title 24 Certified |  |  |  |
| *For Diagram see technical section page 18 |  |  |  |  |
| Catalog Number | Description |  |  |  |
| SLSPWS1277UW | White |  |  |  |
| SLSPWS1277UI | Ivory |  |  |  |
| SLSPWS1277UG | Gray |  |  |  |
| SLSPWS1277UL | Light Almond |  |  |  |
| SLSPWS1277UB | Black |  |  |  |
| Catalog Number | Description | Blank Catalog Number | Toggle Catalog Number | Description |
| SLSPWD1277UW | White | SLSWP2DBW | SLSWP2DTW | White |
| SLSPWD1277UI | Ivory | SLSWP2DBI | SLSWP2DTI | Ivory |
| SLSPWD1277UG | Gray | SLSWP2DBG | SLSWP2DTG | Gray |
| SLSPWD1277UL | Light Almond | SLSWP2DBL | SLSWP2DTL | Light Almond |
| SLSPWD1277UB | Black | SLSWP2DBB | SLSWP2DTB | Black |



Single Circuit Wall Switch Occupancy Sensor

# Commercial Grade Occupancy Sensor Ultrasonic Single and Dual Circuit Wall Switch 

Schneider Electric Single Circuit PIR Wall Switch Occupancy Sensor with Light Level features passive infrared (PIR) technology to conveniently control lighting.

Dual Circuit Wall Switch Occupancy Sensors independently control two lighting circuits with bi-level switching to reduce lighting by $50 \%$ which may be required by energy codes. The dual circuit wall switch occupancy sensor employs passive infrared (PIR) technology and a 180 degree segmented lens to achieve minor motion coverage up to 300 square feet ( 27.87 sq. meters).

Adaptive Technology: New patent pending technology employs advanced algorithms to achieve convenient energy savings and reduced lamp and ballast maintenance

Walk-Through Mode: To maximize energy savings and reduce waste, the sensor detects when areas are briefly occupied as a result of an occupant walking through and turns off lighting based on a shorter time delay.

Light Level Sensor Mode: Each sensor includes an adjustable light level sensor to hold off artificial lighting when adequate natural light is present. When natural light levels drop below the threshold, the sensor will turn on artificial lighting in occupied spaces.


Single Circuit Wall Switch Occupancy Sensor

Lamp Saver Mode: (Dual Circuit wall switch) when the lamp saver feature is enabled, the sensor automatically alternates which circuit responds to motion. The result is more predictable lamp life and reduced maintenance.

These sensors do not require a neutral connection or minimum load, making it great for retrofits. Easily replaces an existing wall switch using existing wiring - no wiring modifications required. Matching wall switch cover plate makes retrofits clean and simple.

Technical Information

| Input | $120-277$ Vac $\pm 10 \% 50 / 60 \mathrm{~Hz}$ |  |
| :---: | :---: | :---: |
| Output | 120 Vac | 277 Vac |
|  | 1000 W max. tungsten incandescent load $1 / 4 \mathrm{hp}$ max. motor load 277 Vac 1000 VA max. ballast load | 1800 VA max. ballast load |
| Operating Temperature | $32^{\circ} \mathrm{F}-122^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}-50^{\circ} \mathrm{C}\right)$ |  |
| Humidity | 0-90\% max. relative humidity non-condensing |  |
| Time Delay Adjustment Normal Walk Through Mode Test Mode | $0.5-30$ minutes <br> 2 minutes if no activity is detected after 30 seconds 15 seconds |  |
| Light Level adjustment | 0.5-250 FC |  |
| Detection | $180^{\circ}$ passive infrared (PIR) |  |
| Audible Alert | Selectable |  |
| Service Switch | OFF/Auto/ON |  |
| Manual Operation | Push-button ON/OFF |  |
| Lens | Impact Resistant |  |
| Relay Switching | $0^{\circ} \pm 500$ us |  |
| Standard | UL and cUL Listed, FCC Part 15/Home and Office Use (Class B), Title 24 Certified |  |

*For Diagram see technical section page 19

| Catalog Number | Description |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SLSUWS1277UW | White |  |  |  |
| SLSUWS1277UI | Ivory |  |  |  |
| SLSUWS1277UG | Gray |  |  |  |
| SLSUWS1277UL | Light Almond |  |  |  |
| SLSUWS1277UB | Black |  |  |  |
| Catalog Number | Description | Blank Catalog Number | Toggle Catalog Number | Description |
| SLSUWD1277UW | White | SLSWP2DBW | SLSWP2DTW | White |
| SLSUWD1277UI | Ivory | SLSWP2DBI | SLSWP2DTI | Ivory |
| SLSUWD1277UG | Gray | SLSWP2DBG | SLSWP2DTG | Gray |
| SLSUWD1277UL | Light Almond | SLSWP2DBL | SLSWP2DTL | Light Almond |
| SLSUWD1277UB | Black | SLSWP2DBB | SLSWP2DTB | Black |



Dual Circuit Wall Switch Occupancy Sensor

## Product Features

- Available in white, ivory, gray, light almond and black with matching wall switch cover plate
- Color matching multisegmented lens
- Selectable auto-on and manual-on modes
- 120-277 Vac 50/60 Hz input
- $180^{\circ}$ field of view
- 1000 sq. ft. major motion and 300 sq. ft. minor motion coverage area
- Light level sensor
- Adjustable light level, time delay and sensitivity
- Red LED motion indicator
- For use with electronic and magnetic ballasts
- No neutral connection, minimum load or power pack required
- UL and cUL Listed for United States and Canada
- Five-year warranty


## Commercial Grade Occupancy Sensor Dual Technology Single and Dual Circuit Wall Switch

Schneider Electric Single Circuit PIR Wall Switch Occupancy Sensor with Light Level features passive infrared (PIR) technology to conveniently control lighting.

Dual Circuit Wall Switch Occupancy Sensors independently control two lighting circuits with bi-level switching to reduce lighting by $50 \%$ which may be required by energy codes. The dual circuit wall switch occupancy sensor employs passive infrared (PIR) technology and a 180 degree segmented lens to achieve minor motion coverage up to 300 square feet ( 27.87 sq. meters).

Adaptive Technology: New patent pending technology employs advanced algorithms to achieve convenient energy savings and reduced lamp and ballast maintenance.

Walk-Through Mode: To maximize energy savings, the sensor detects when areas are briefly occupied as a result of a person walking through and turns off lighting based on a shorter time delay.

Light Level Sensor Mode: Each sensor includes an adjustable light level sensor to hold off artificial lighting when adequate natural light is present. When natural light levels drop below the threshold, the sensor will turn on artificial lighting in occupied spaces.

Lamp Saver Mode: (Dual Circuit sensor) When the lamp saver feature is enabled, the sensor automatically alternates which circuit responds to motion. The result is more predictable lamp life and reduced maintenance.

The sensor does not require a neutral connection or minimum load, making it great for retrofits. Easily replaces an existing wall switch using existing wiring - no wiring modifications required. Matching wall switch cover plate makes retrofits clean and simple.

Technical Information

*For Diagram see technical section page 19

| Catalog Number | Description |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SLSDWS1277UW | White |  |  |  |
| SLSDWS1277UI | Ivory |  |  |  |
| SLSDWS1277UG | Gray |  |  |  |
| SLSDWS1277UL | Light Almond |  |  |  |
| SLSDWS1277UB | Black |  |  |  |
| Catalog Number | Description | Blank Catalog Number | Toggle Catalog Number | Description |
| SLSDWD1277UW | White | SLSWP2DBW | SLSWP2DTW | White |
| SLSDWD1277UI | Ivory | SLSWP2DBI | SLSWP2DTI | Ivory |
| SLSDWD1277UG | Gray | SLSWP2DBG | SLSWP2DTG | Gray |
| SLSDWD1277UL | Light Almond | SLSWP2DBL | SLSWP2DTL | Light Almond |
| SLSDWD1277UB | Black | SLSWP2DBB | SLSWP2DTB | Black |



Single Circuit Wall Switch Occupancy Sensor

Dual Circuit Wall Switch Occupancy Sensor

Product Features

- Available in white, ivory, gray, light almond and black with matching wall switch cover plate
- Color matching multisegmented lens
- Selectable auto-on and manual-on modes
- 120-277 Vac $50 / 60 \mathrm{~Hz}$ input
- $180^{\circ}$ field of view
- 1000 sq. ft. major motion and 300 sq. ft. minor motion coverage area
- Light level sensor
- Walk-through mode
- Adjustable light level, time delay and sensitivity
- Red LED motion indicator
- For use with electronic and magnetic ballasts
- No neutral connection, minimum load or power pack required
- UL and cUL Listed for United States and Canada
- Five-year warranty


## Sensor Accessories <br> Blank Button Covers, Wall Plate toggle opening and Wall Plate Decorator and Ceiling sensor replacement kit

## Button Covers for Commercial grade Single Circuit Sensors

| Catalog Number | Description |
| :--- | :--- |
| SLSBCB | Button Cover Black |
| SLSBCG | Button Cover Gray |
| SLSBCI | Button Cover Ivory |
| SLSBCL | Button Cover Light Almond |
| SLSBCW | Button Cover White |



Button Covers
(SLSBCB, SLSBCG, SLSBCI,
SLSBCL, and SLSBCW)


2 Gang Wall plate (SLSWP2DBB)


2 Gang Wall plate (SLSWP2DBG)


2 Gang Wall plate (SLSWP2DBI)


2 Gang Wall plate (SLSWP2DBL)


2 Gang Wall plate (SLSWP2DBW)


2 Gang Wall plate (SLSWP2DTB)

## Ceiling Mounted Occupancy Sensor PIR/Ultrasonic/Dual Technology

Ceiling Mounted Passive Infrared (PIR), Ultrasonic and Dual Techology Occupancy Sensors accurately detect occupancy and automatically switches lighting on and off as needed. This low profile sensor is ceiling mounted for superior motion detection.

PIR: 360 degree field of view and up to 1000 square feet ( 92.90 sq. meters) of coverage area.

Ultrasonic: 360 degree field of view and up to 2000 square feet (185.8 sq. meters) of coverage area.

Dual Technology: Incorporates both Passive Infrared and Ultrasonic technology with a 360 degree field of view and up to 2000 square feet ( 185.8 sq. meters) of coverage area.

Ceiling mount sensors also incorporate an integral light level sensor to prevent lighting from switching On when sufficient ambient light is present, such as is commonly found in windowed areas.

Installation and configuration is simple. The sensor readily mounts to drop ceilings and features front located adjustments for setting sensitivity and time delay. Features an isolated relay for use with building automation, security and HVAC systems.


Ceiling Mounted Occupancy Sensor PIR正


Ceiling Mounted Occupancy Sensor Ultrasonic


Dual Circuit Wall Switch Occupancy Sensor

## Product Features

- 24 Vac for use with BAS systems
- 360 degree field of view
- Light Level Sensing (from 0.5 to 250 foot-candles)
- Adjustable Time Delay (pre-set time delays from 15 seconds (test) to 30 minutes)
- Adjustable Sensitivity (from 60 to 100\%)
- Isolated Relay (1 A at 24 Vdc NO and NC Form C Relay)
- Red LED Motion Indicator
- Adjustment compartment cover equipped with retention clip
- UL/cUL Listed
- Manual Bypass
- Five-year warranty


## 180 Degree Ceiling-Mounted Occupancy Sensor Ultrasonic/Dual Technology

The 180 Degree Ceiling-Mounted Occupancy Sensors are ideal for use in business and office settings to accurately detect occupancy and automatically control lighting. The ceiling-mount design of these low-profile sensors allows the greatest possible motion sensitivity. An adjustment panel is conveniently located on the front of the sensor, providing ready access to setting controls after the sensor is installed. These occupancy sensors are available in the ultrasonic and dual technology models. The dual technology model employs passive infrared (PIR) and ultrasonic technology.


180 Degree Ultrasonic Occupancy Sensor

## Technical Information

|  | Ultrasonic | Dual |
| :---: | :---: | :---: |
| Current Consumption @ 24 Vdc** $^{*}$ | Active: 30 mA | Active: 33 mA |
| Isolated relay | Contact rating: 1 A @24 Vdc Resistive |  |
| Operating Temperature | $32^{\circ} \mathrm{F}$ to $122^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.50^{\circ} \mathrm{C}\right)$ |  |
| Humidity | 0-90\% max. relative humidity non-condensing |  |
| Standards | UL and cUL Listed <br> FCC Part 15 <br> Home and Office Use (Class B) California Title 24 Certified |  |

*For Diagram see technical section page 20 and 21
${ }^{* *}$ Control power must be provided by the Power Pack SLSPP1277 or an approved equivalent.

| Catalog Number | Description |
| :--- | :--- |
| SLSCUS800 | 180 Degree Ultrasonic sensor |
| SLSCDS800 | 180 Degree Dual Technology Sensor |
| SLSPP1277 | Power Pack (required) |
| SLSSP24 | Auxiliary Relay (optional) |



180 Degree Dual Technology Occupancy Sensor

- 1000 sq. ft. coverage area
- $180^{\circ}$ field of view
- New patent pending adaptive technology employs advanced algorithms to achieve convenient energy savings and reduce lamp and ballast maintenance.
- Ambient light level sensing from 0.5 to 250 foot-candles
- Adjustable time delay from 15 sec . to 30 min .
- Adjustable sensitivity from 600 to 1000 sq. ft. (10-100\% of maximum coverage)
- Isolated relay (Form C contacts for Class 2 signalling)
- LED motion indicators (ultrasonic = 1 red, dual technology $=1$ red, 1 green)


## Wall Mounted Occupancy Sensor PIR/Ultrasonic/Dual Technology

Schneider Electric Wall Mounted Sensors accurately detects occupancy and automatically switches lighting on and off as needed. This sensor is wall or ceiling mounted for superior motion detection.

The PIR Occupancy Sensor includes 3 interchangeable lenses for custom coverage patterns. The Wide Angle lens has a 2500 square foot coverage area when the sensor is mounted 8 feet high, the Long Range lens has a 102 linear foot coverage area @ 10 ft . high and the High Bay lens has a 54 linear foot coverage area @ 30 ft . high. With a 110 degree field of view.

With 1000 square feet of coverage area, the Schneider Electric PIR Wall Mounted Ultrasonic Occupancy Sensor is ideal for storage rooms, hallways, bathrooms, conference rooms, classrooms and open office areas.

To reduce the occurrence of false on events, the Dual Technology Sensor employs PIR technology to detect major motion. Once lighting has been turned on, it employs highly sensitive PIR and ultrasonic technology to detect minor motion and keep lighting on while areas remain occupied. When the room or area is no longer occupied, the sensor turns off lighting after a pre-set time delay. The low profile sensor is wall mounted for greatest sensitivity to motion in large areas with obstructions. With a 110 degree field of view and up to 2500 square feet of coverage area when mounted at 8 ft . off the ground, the Wall Mounted Dual Technology Occupancy Sensor is ideal for conference rooms, classrooms, bathrooms, and large office areas.

Wall mount sensors also incorporate an integral light level sensor to prevent lighting from switching On when sufficient ambient light is present, such as is commonly found in windowed areas.

Installation and configuration is simple. The sensor readily mounts to walls as well as drop ceilings and features front located adjustments for setting sensitivity and time delay. Features an isolated relay for use with building automation, security and HVAC systems.

Wall Mounted Occupancy Sensor PIR


Wall Mounted Occupancy Sensor Ultrasonic


Wall Mounted Occupancy Sensor Dual Technology

## Product Features

- Interchangeable lenses for custom coverage pattern (PIR)
- 110 degree field of view
- Light Level Sensing (from 0.5 to 250 foot-candles)
- Adjustable Time Delay (pre-set time delays from 15 seconds to 30 minutes)
- Adjustable Sensitivity (from 60 to 100\%)
- Isolated Relay
- Red LED Motion Indicator (PIR/Ultrasonic)
- Red and Green LED Motion indicator (Dual Technology)
- Front located adjustment access cover
- UL/cUL Listed


## Power Pack and Auxiliary Relay $120 \mathrm{~V}, 277 \mathrm{~V}$ and 347 V

The Power Pack supplies low voltage power to Schneider Electric ceiling and wall mounted occupancy sensors, and employs a heavy duty 20A relay to switch lighting and HVAC loads based on a control signal received from the occupancy sensor.

The power pack employs a micro-controller that switches loads at minimum voltage, protecting relay contacts from high in-rush current common when switching electronic ballasts. This switching method reduces the stress across the relay contacts, preventing arc-over and assuring long reliable contact life.

Similar to the power pack, the auxiliary relay does not supply power, but switches lighting and HVAC loads based on a control signal from the occupancy sensor.

Both the power pack and auxiliary relay are housed in a rugged plenum rated enclosure. Flexible mounting scheme allows for installation inside or outside a standard $4 \times 4$ inch junction box.


Power Pack

## Technical Information (120V, 277V)

|  | Power Pack | Auxiliary Relay |  |
| :--- | :--- | :--- | :--- |
| Storage Temp | $-20^{\circ} \mathrm{F}$ to $150^{\circ} \mathrm{F}\left(-29^{\circ} \mathrm{C}\right.$ to $\left.65^{\circ} \mathrm{C}\right)$ | $-20^{\circ} \mathrm{F}$ to $150^{\circ} \mathrm{F}\left(-29^{\circ} \mathrm{C} \mathrm{to} 65^{\circ} \mathrm{C}\right)$ |  |
| Operating Temperature | $32^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.40^{\circ} \mathrm{C}\right)$ | $32^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.40^{\circ} \mathrm{C}\right)$ |  |
| Max. Humidity | $0-90 \%$ max. relative humidity non-condensing | $0-90 \%$ max. relative humidity non-condensing |  |
| Input | 120 or $277 \mathrm{Vac} / 60 \mathrm{~Hz}$ | $24 \mathrm{Vdc} / 36 \mathrm{~mA}$ |  |
| Output | $24 \mathrm{Vdc} / 100 \mathrm{~mA} \mathrm{Nominal}$ | No Power Supply |  |
| Max Load Ratings | $120 \mathrm{Vac} / 60 \mathrm{~Hz}$ | $277 \mathrm{Vac} / 60 \mathrm{~Hz}$ | $120 \mathrm{Vac} / 60 \mathrm{~Hz}$ |
| Tungsten | $15 \mathrm{~A} / 1800 \mathrm{~W}$ | $15 \mathrm{~A} / 1800 \mathrm{~W}$ | $15 \mathrm{~A} / 1800 \mathrm{~W}$ |
| Ballast | 20 A | 20 A | $277 \mathrm{Vac} / 60 \mathrm{~Hz}$ |
| AC Motor | 1 HP at $120 \mathrm{Vac} / \mathrm{No} \mathrm{HP} \mathrm{rating} \mathrm{at} 277 \mathrm{Vac}$ | $15 \mathrm{~A} / 1800 \mathrm{~W}$ |  |
| Dimensions | $3 \mathrm{in} .(76 \mathrm{~mm})$ tall $\times 2.25 \mathrm{in} .(57 \mathrm{~mm})$ wide $\times 1.75 \mathrm{in} .(44 \mathrm{~mm})$ deep | 20 A |  |

*For Diagram see technical section page 22

Technical Information (347V)

|  | Power Pack |  | Auxiliary Relay |  |
| :---: | :---: | :---: | :---: | :---: |
| Storage Temp | $-20^{\circ} \mathrm{F}$ to $150^{\circ} \mathrm{F}\left(-29^{\circ} \mathrm{C}\right.$ to $\left.65^{\circ} \mathrm{C}\right)$ |  | $-20^{\circ} \mathrm{F}$ to $150^{\circ} \mathrm{F}\left(-29^{\circ} \mathrm{C}\right.$ to $\left.65^{\circ} \mathrm{C}\right)$ |  |
| Operating Temperature | $32^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.40^{\circ} \mathrm{C}\right)$ |  | $32^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.40^{\circ} \mathrm{C}\right)$ |  |
| Max. Humidity | $0-90 \%$ max. relative humidity non-condensing |  | 0-90\% max. relative humidity non-condensing |  |
| Input | $347 \mathrm{Vac} / 60 \mathrm{~Hz}$ |  | $347 \mathrm{Vac} / 60 \mathrm{~Hz}$ |  |
| Output | $24 \mathrm{Vdc} / 150 \mathrm{~mA} \mathrm{Max}$. |  | No Power Supply |  |
| Max Load Ratings | $347 \mathrm{Vac} / 60 \mathrm{~Hz}$ | $347 \mathrm{Vac} / 60 \mathrm{~Hz}$ | $347 \mathrm{Vac} / 60 \mathrm{~Hz}$ | $347 \mathrm{Vac} / 60 \mathrm{~Hz}$ |
| Ballast | 15 A ballast, 5200 Watts |  |  |  |
| Dimensions | 3 in . tall $\times 2.25 \mathrm{in}$. wide $\times 1.75 \mathrm{in}$. deep [ 76 mm tall $\times 57 \mathrm{~mm}$ wide $\times 44 \mathrm{~mm}$ deep] |  |  |  |
| Standards | UL and cUL Listed FCC: Part 15, Home and Office Use Class B |  |  |  |

*For Diagram see technical section page 22

| Catalog Number | Description |
| :--- | :--- |
| SLSPP1277 | Occupancy Sensor Power Pack 120 - 277 Vac |
| SLSSP24 | Occupancy Sensor Auxiliary Relay 120 - 277 Vac |
| SLSPP1347 | Occupancy Sensor Power Pack 347 Vac |
| SLSSP24347 | Occupancy Sensor Auxiliary Relay 347 Vac |

Product Features

- 120 V, 277 V and 347 V Input
- Plenum Rated
- Flexible Mounting Options
- UL and cUL Listed
- FCC Part 15, Class B
- Heavy duty relay rated to switch electronic ballast loads
- External color coded leads for quick installation
- Mounts to a standard 4 in . $(101 \mathrm{~mm}) \times 4 \mathrm{in}$. (101 mm) junction box using a $1 / 2$ in. (12.7 mm) threaded EMT nipple
- UL/cUL Listed


## Ceiling Mounted Line Voltage Occupancy Sensors PIR/Ultrasonic/Dual Technology

The Ceiling Mounted $360^{\circ}$ Line Voltage Occupancy Sensor line from Schneider Electric, are Class 1 devices designed to operate with indoor lighting fixtures performing the switching of electrical loads in response to a control signal from the detection circuitry of the device. The occupancy sensors easily mount to a standard 3.5 in . ( 89 mm ) octagonal electrical box as well as a 4 in . $(10.2 \mathrm{~cm}$ ) square (1900 type) electrical box with mud ring. The power section of the sensor fits into the electrical box. The occupancy sensors operate from 120 Vac to 347 Vac at 60 HZ .

## Technical Information

| Operating Range VAC | $120 \mathrm{Vac}: 1000 \mathrm{~W}$ Max ballast load, or 1000 W Tungsten, <br> or $1 / 4 \mathrm{Hp}$ motor <br> $230 \mathrm{Vac}: 1500 \mathrm{~W}$ Max ballast load <br> $277 \mathrm{Vac}: 1800 \mathrm{~W}$ Max ballast load <br> $347 \mathrm{Vac}: 1500 \mathrm{~W}$ Max ballast load |
| :--- | :--- |
| Frequency | $120 \mathrm{Vac}: 60 \mathrm{~Hz}$ <br> $230 \mathrm{Vac}, 277 \mathrm{Vac}, 347 \mathrm{Vac}: 50 \mathrm{~Hz}$ or 60 Hz <br> Operating Temperature <br> $32^{\circ} \mathrm{F}$ to $122^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.50^{\circ} \mathrm{C}\right)$ <br> Humidity$0-90 \%$ max. relative humidity non-condensing $^{\text {Standards }}$UL and cUL Listed <br> FCC Part 15, Home and Office Use (Class B) <br> California Title 24 Certified |

*For Diagram see technical section page 23 and 24

| Catalog Number | Description |
| :--- | :--- |
| SLSCLP1000 | Passive Infrared (PIR) Occupancy Sensors |
| SLSCLU2000 | Ultrasonic (US) Occupancy Sensors |
| SLSCLD2000 | Dual Technology (DT) Occupancy Sensors |



Ceiling Mounted Line Voltage Occupancy Sensor PIR


Dual Circuit Ceiling Mounted Line Voltage Occupancy Sensor

## Product Features

All Models:

- Adjustable sensitivity
- Manual or Automatic Light level feature for daylight harvesting
- Delay-off timer setting control - factory set to 18 min. for max energy vs lamp life
- "Adaptive Timing" modifies time-out value based on occupancy activities
- Time delay Test mode for sensor placement testing
- Low current consumption circuit design
- "Walk through mode" for sensors used in hallways and corridors


## PIR/Dual Technology:

- Interchangeable 500 or 1000 sq. ft. lenses
- "Adaptive PIR" moves sensitivity of the sensor based on occupancy detection
- Dual Tech Logic Engine - (Modes of Operation) (Dual Tech model only)


## High Bay Occupancy Sensor HID

Schneider Electric High Bay HID Basic, Single and Dual Output Occupancy Sensors work with a single HID (high intensity discharge) luminaire to reduce the lamp wattage by approximately $50 \%$ and then return the lamp wattage to $100 \%$ when occupancy is detected in an aisle or room. Motion is detected using passive infrared (PIR) technology.

Basic HID Sensors are used in sensor-per-fixture configuration, while single output sensors include a connector to send and receive fiber optic signals. Single output sensors are commonly used in daisy chain configurations. Dual output sensors have two connectors that send fiber optic signals, and are commonly used in configurations that interleave switch packs and sensors. All Sensors are compatible with single magnetic HID luminaires.


High Bay Occupancy Sensor

## Technical Information

| Fixture Compatibility | HID with constant wattage auto-transformer ballast |
| :--- | :--- |
| Dimming Method | Relay-switched dual-section capacitor |
| Switching Configurations | Parallel (preferred) or series capacitors |
| Relay Current Rating | 4 amperes RMS maximum |
| Maximum Fixture Wattage | 1000 watts parallel mode/250 watts series mode |
| AC Line Voltage | $120 / 208 / 240 / 277 / 347 / 480$ Vac |
| Power Consumption | 3 watts maximum |
| Maximum Fiber Spacing <br> Between Nodes | 200 ft. |
| Ambient Temperature <br> Range | $32^{\circ} \mathrm{F}$ to $122^{\circ} \mathrm{F}$ ( $0^{\circ} \mathrm{C}$ to $50^{\circ} \mathrm{C}$ ) non-condensing |
| Observed Motion ON Time | 0 to 15 minutes (user-adjustable) |
| Lamp Warm Up Interval | 15 minutes |
| Wire Harness | 4 conductor 18 AWG stranded copper wire |
| Wire Harness Length | 36 inches ( 91.44 cm$)$ |
| Dimensions <br> (including mounting nipple) | 3.25 in. (L) $\times 3.25$ in. (W) $\times 3.25$ in.(H) <br> [82.56 mm (L) $\times 82.56 ~ m m ~(W) ~$ 82.56 mm (H)] |
| Standards | UL Listed 916 Energy Management Equipment, cUL Listed |

*For Diagram see technical section page 25

| Catalog Number | Description |
| :--- | :--- |
| SLSPIP210 | HID Occupancy Sensor |
| SLSPIP211 | HID Single Optical Output Occupancy Sensor |
| SLSPIP212 | HID Dual Optical Output Occupancy Sensor |
| SLSPCW001 | Optional Counterweight |
| SLSPIP210EB | HID Occupancy Sensor Electronic Ballast |
| SLSPIP210CT | HID Occupancy Sensor Magnetic Ballast Cold Temperature |
| SLSPIP210EBCT | HID Occupancy Sensor Electronic Ballast Cold Temperature |
| SLSPSP101 | HID Switch Pack with optical control ports (1 input/1 output) |
| SLSPSP102 | HID Switch pack with optical control ports (2 inputs) |



Sensor and optional counterweight mounted on luminaire

## Product Features

- Compatible with HID luminaires rated between 208 and $480 \mathrm{Vac} / 60 \mathrm{~Hz}$, without adding taps or jumpers
- Up to 40' mounting height
- User-adjustable 1 to 15 minute activity timer
- User-adjustable range dial to customize PIR sensitivity
- Available with interchangeable aisle and area lenses
- Lamp always starts on high to provide full rated HID lamp life, even after AC power bumps or loss of fiber optic signals
- Includes a manual test switch for self diagnostics that assist with installation and debugging networks


## High Bay PIR Occupancy Sensor Fluorescent

The Fluorescent High Bay PIR Sensors (SLSFPS1347 or SLSFPS1480) by Schneider Electric are designed for use with T5 and T8 fluorescent fixtures in high or low bay, area or isle applications. The sensors save energy by using Passive Infrared (PIR) technology to detect motion and turning off lights in unoccupied areas. The SLSFPS1347 uses automatic voltage sensing allowing the same device to be installed in different voltage systems ranging from $120-347 \mathrm{~V}$. The SLSFPS1480 is designed specifically for 480 V applications. Installation is simple because drop-down brackets are not required.


Fluorescent High Bay PIR
Occupancy Sensor

## Technical Information

|  | SLSFPS1480 | SLSFPS1347 |
| :--- | :--- | :--- |
| Fixture Compatibility | T5 and T8 Fluorescent Fixtures | White/Black wires <br> $120 / 277 / 347 \mathrm{Vac} \pm 10 \%, 60 \mathrm{~Hz}$ |
| AC Line Voltage | Black/Black wires <br> $480 \mathrm{Vac} \pm 10 \%, 60 \mathrm{~Hz}$ | $1000 / 1800 / 1500 \mathrm{~W} \mathrm{Max} \mathrm{Ballast} \mathrm{Load}$ |
| Output Contact Rating | 2000 W Max Ballast Load |  |
| Ambient Temperature <br> Range | $32^{\circ} \mathrm{F}$ to $158^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.70^{\circ} \mathrm{C}\right)$ non-condensing |  |
| Observed Motion ON time | 15 seconds to 30 minutes |  |
| Dimensions (including <br> mounting nipple) (HxWxD) | 4.96 in. $\times 3.25 \mathrm{in} . \times 3.25 \mathrm{in}. \mathrm{(126} \mathrm{~mm} \times 82.56 \mathrm{~mm} \times 82.56 \mathrm{~mm})$ |  |
| Standards | UL and cUL Listed |  |

*For Diagram see technical section page 25

| Catalog Number | Description |
| :--- | :--- |
| SLSFPS1347 | Occupancy Sensor $(120-347$ V) Fluorescent High Bay PIR |
| SLSFPS1480 | Occupancy Sensor (480 V) Fluorescent High Bay PIR |

Product Features

- Includes a user-adjustable time dial to set the length of time the luminaires stay on from 15 seconds to 30 minutes.
- Includes a user-adjustable range dial to customize PIR sensitivity.
- 90 degree rotating lens for a variety of aisle-way applications.
- High bay area, low bay area, and high bay aisle lenses provided.
- 18 minutes time-out preset for maximum energy to lamp life savings.


## Occupancy Controller

The Occupancy Controller from Schneider Electric has two lighting control relays, an occupancy sensor power supply, two auxiliary input switches, two timers (one per relay), and two relay default mode switches associated with each relay. The occupancy controller provides a simple all-in-one solution for dimming, on-off operation, and powering of sensors. It operates over a wide range of input voltages ( $100-277 \mathrm{Vac}$ ) and is designed for above-ceiling installation. The occupancy controller is ideal for in-room occupancy control applications such as classrooms, open-office space, executive offices and conference rooms.


Occupancy Controller

## Technical Information

| Power Supply Voltage | 100-277 Vac |
| :---: | :---: |
| Power Supply Frequency | $50-60 \mathrm{~Hz}$ |
| Motion Sensor Power Supply | Power output 280 mA ( 140 mA per detector connection) |
| Power Supply Rating | 24 Vdc SELV/Class 2 |
| Relay Rating | Resistive: 16 A at 277 Vac , Incandescent/Tungsten: 12 A at 277 Vac Fluorescent (UL) Standard ballast: 10 A at 277 Vac (inductive $0.4-0.5 \mathrm{pf}$ ) |
| Connections (Screw-type Phoenix-style Connectors) | Input: 14-12 AWG (2.5-4 mm²) <br> Relay output: 14-12 AWG (2.5-4 mm²) <br> Motion detector: 3-pin, 1 per relay present <br> Auxiliary input: 2-pin, 1 per relay present |
| Maximum Operating Temp. | $122^{\circ} \mathrm{F}\left(50^{\circ} \mathrm{C}\right)$ approved for use in a plenum |
| Operating Humidity | $10-90 \%$ max. relative humidity non-condensing |
| Dimensions ( $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ ) | $8.0 \times 7.87 \times 2.36$ in. ( $203 \times 200 \times 60 \mathrm{~mm}$ ) |
| Standards (Title) | CSA C22.2 No. 205 (Signal Equipment), UL916 (Energy Management Equipment) FCC Part 15 (Class B Digital Device for Home or Office Use) |

*For Diagram see technical section page 26

| Catalog Number | Description |
| :--- | :--- |
| 5752PP/2R | Occupancy Controller with 2 relays, with C-Bus connection |
| 5752PP/2R/2D | Occupancy Controller with 2 relays and $20-10 \mathrm{~V}$ dimmers, with C-Bus connection |
| 752PP/2R | Occupancy Controller with 2 relays, no network connection |

## Product Features

- Input voltage range: $100-277$ Vac $50 / 60 \mathrm{~Hz}$
- One occupancy sensor input terminal for each relay
- 24 Vdc power supply for the motion detectors
- One auxiliary input switch terminal for overrides and an on board timer for each relay
- One relay fail-safe mode switch for each relay
- Remote override on/off capability
- Class 1 and Class 2 voltage isolation


## Compatible Sensors

| Sensor | Description |
| :--- | :--- |
| SLSCPS1000 | Ceiling mount PIR motion sensor, $360^{\circ}$ detection pattern, isolated relay |
| SLSCUS2000 | Ceiling mount Ultrasonic motion sensor, $360^{\circ}$ detection pattern, isolated relay |
| SLSCDS2000 | Ceiling mount Dual-technology (PIR and Ultrasonic) motion sensor, <br> $360^{\circ}$ detection pattern, isolated relay |
| SLSCUS800 | Ceiling mount Ultrasonic motion sensor, $180^{\circ}$ detection pattern, isolated relay |
| SLSCDS800 | Ceiling mount Dual-technology (PIR and Ultrasonic motion sensor, <br> $180^{\circ}$ detection pattern, isolated relay |
| SLSWPS1500 | Wall mount PIR motion sensor, $110^{\circ}$ detection pattern, isolated relay |
| SLSWUS1500 | Wall mount Ultrasonic motion sensor, isolated relay |
| SLSWDS1500 | Wall mount Dual-technology; PIR and ultrasonic motion |

## Low Voltage Switches

The Schneider Electric Low Voltage Switches are a series of aesthetically pleasing push button wall switches that can be mounted in various applications. The low voltage switches are designed to operate with Schneider Electric Occupancy Controllers, Powerlink, C-Bus, and relay panels. All switch models are available in white, almond, and ivory.

## Technical Information

| Connection type | External wires Gauge: \#22 AWG stranded |
| :--- | :--- |
|  | SLSLVS1: 2 <br> SLSLVS1L: 4 |
| Number of conductors/switch | SLSLVS2: 3 <br> SLSLVS2L: 7 <br> SLSLVS1R: 2 <br> SLSLVS2R: 3 |
| Switch Operating Range | $5-36$ Vdc Max current of 50 mA @ 36 Vdc |
| LED Operating Range | $5-36$ Vdc <br> Min operating current .150ma @ 5 Vdc <br> Min operating current .275ma @ 12 Vdc <br> Min operating current .385ma @ 24 Vdc <br> Min operating current .470ma @ 36 Vdc |
| Conductor temperature rating | Not specified, select to meet UL Class 2 requirements |
| Conductor voltage rating | 5 to 36 Vdc |
| Conductor length | 6 inches from housing |
| Temperature | $0-122^{\circ} \mathrm{F}$ (50 ${ }^{\circ}$ C) |
| Humidity | $0-90 \%$ max. relative humidity non-condensing |

*For Diagram see technical section page 26

| Catalog Number | Description |
| :--- | :--- |
| SLSLVS1x | 1-button, low voltage switch |
| SLSLVS1Lx | 1-button, low voltage switch with LED |
| SLSLVS2x | 2-button, low voltage switch |
| SLSLVS2Lx | 2-button, low voltage switch with LED |
| SLSLVS1Rx | 1-button Schneider Electric relay panel switch with LED |
| SLSLVS2Rx | 2-button Schneider Electric relay panel switch with LED |

'X' - Designates color: W: White, I: Ivory, G: Gray, L: Light Almond, B: Black


Low Voltage Switches

## Product Features

- Provide simple momentary push button control.
- LED models provide pilot lights or status outputs.
- Operate on voltage ranges from 5-36 Vdc.
- Certain models are designed for use with Schneider Electric relay panels.
- Switches fit standard NEMA wall boxes.
- Decorator-style enclosure; wall plate included.


## Wall Switch Occupancy Sensor


$\square$ Major Motion
Minor Motion
Sensor field of view
Sensor features

## Residential Wall Switch Vacancy Sensor


$\square$ Major Motion
$\square$ Minor Motion


Sensor field of view, Side


Vacancy Sensor Features


Vacancy Sensor Wiring Diagram
Vaca


Side view of sensor field of view


[^0]
## Commercial Grade Occupancy Sensors Ultrasonic Wall Switch



Ultrasonic Sensor Field of View, Top


Sensor Wiring


Sensor Wiring, Bi-level


Sensor Wiring, Dual Circuit

## Commercial Grade Occupancy Sensors Dual Technology Wall Switch



Single and Dual Technology Sensor Field of View, Top


Sensor Wiring, Bi-level


Sensor Wiring, Dual Circuit

## Ceiling Mounted Occupancy Sensor

PIR


## Side view of sensor field of view

## $\square$ Major Motion <br> $\square$ Minor Motion

## Ceiling Mounted Occupancy Sensor <br> Ultrasonic



Area of Detection

Major Motion Minor Motion


Side view of ceiling mounted sensor

## Ceiling Mounted Occupancy Sensor <br> Dual Technology


$\square$ Ultrasonic Major Motion Ultrasonic Minor Motion $\square$ PIR Major Motion
$\square$ PIR Minor Motion


Side view of ceiling mounted sensor

## 180 Degree Ceiling-Mounted Occupancy Sensor Ultrasonic



Ultrasonic Major Motion Ultrasonic Minor Motion


Side view of ceiling mounted sensor

Area of Detection

## 180 Degree Ceiling-Mounted Occupancy Sensor

## Dual Technology




Side view of ceiling mounted sensor

## Wall Mounted Occupancy Sensor PIR





10 ft .
( 3.1 m )


## Wall Mounted Occupancy Sensor

## Ultrasonic




## Wall Mounted Occupancy Sensor <br> Dual Technology



## Power Pack and Auxiliary Relay <br> 120 Volt and 277 Volt



## Power Pack and Auxiliary Relay 347 Volt




Front View Dimensions


Wiring Diagram

## Ceiling Mounted Line Voltage Occupancy Sensor PIR

## Key:

1. Top view
2. Side view
A. 1,000 Sq. ft. lens
B. 500 Sq. ft. lens
$\square$ Major motion
$\square$ Minor motion


Ceiling Mounted Line Voltage Occupancy Sensors Wiring Diagram


## Ceiling Mounted Line Voltage Occupancy Sensor

 Ultrasonic

Top View Area Coverage (based on 9ft. mounting height)

## Hallway Coverage




## Ceiling Mounted Line Voltage Occupancy Sensor

## Dual Technology

Key:
A. 1,000 Sq. ft. lens
B. 500 Sq. ft. lens
C. PIR Major motion
D. PIR Minor motion
E. Ultrasonic major motion
F. Ultrasonic minor motion
(Based on 9 ft . mounting height)


## High Bay Occupancy Sensors HID



Top View at 40 ft .



Coverage pattern for area lens (top view)

## High Bay PIR Occupancy Sensor

## Fluorescent



Top View from area lens at 40'


Top View from area lens at 20'

## Occupancy Controller



Third-party devices

## Low Voltage Switch



## One Switch



Two Switches


Low Voltage Relay Panel Switch - One Switch


One Switch with LED


Two Switches with LEDs


Low Voltage Relay Panel Switch - Two Switches
 <br> \title{
Emergency Lighting <br> \title{
Emergency Lighting Control Devices
} Control Devices
}



## Emergency Egress Lighting Control Devices

Schneider ELectric UL listed automatic load control relays (ALCR) enable designers to use standard lighting fixtures for the emergency lighting system fed by an emergency backup supply. Under normal operating power, the devices turn on and off emergency lighting along with standard lighting in an area. In the event of normal power loss, the ALCR detects the power loss, and will automatically switch on emergency power to the fixtures. With an

Automatic Load Control Relay, emergency lighting is only turned on when necessary. During normal non-operating hours, the emergency lighting is Off, providing further energy savings and extended lamp life.
Schneider Electric provides a wide selection of Emergency Lighting Control Devices that work with occupancy and dimming-based lighting controls.

## Automatic Load Control Relays SLSERC1277

The Automatic Load Control Relay is a UL 924 Listed Emergency Lighting Control Device.
It provides a means of turning on and off emergency lighting along with regular lighting. The Automatic Load Control Relay is designed to sense when a power outage occurs, then switches on the connected emergency lighting load.

## Technical Information

| Sensing Input | 120 V or 277 V |
| :--- | :--- |
| Load | 120 V or 277 V |
| Load Rating | 20 A |
| Contact | NC |
| Wiring: <br> Input Control <br> Emergency Control | 18 AWG (wires labeled $1,2,3,4)$ <br> 14 AWG (wires labeled 5,6) |
| Standards | UL/cUL listed; UL 924, UL 94V-0 Flame Rating |
| Mounting | Mount in a junction box with a blank cover in the same location as the controlled lighting. |
| Weight | 8 oz. (227 g) |
| Temperature | $32^{\circ} \mathrm{F}$ to $140^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.60^{\circ} \mathrm{C}\right)$ |
| Dimensions (LxWxH) | $3.75 \mathrm{in}. \times 1.75 \mathrm{in} . \times 1.5 \mathrm{in}.(95.25 \mathrm{~mm} \times 44.45 \mathrm{~mm} \times 38.10 \mathrm{~mm})$ |

*For Diagram see technical section page 32

| Catalog Number | Description |
| :--- | :--- |
| SLSERC1277 | Automatic Load Control Relay 120 V and 277 V |



Automatic Load
Control Relay

Product Features

- 120 V or 277 V.
- Meets NEC2011 Article 700
- Patented self-test feature that shows emergency power is operating every time the light switch is turned OFF.
- Visible LEDs for easy diagnostics.
- No programming required and easy to install.
- Use with new or existing lighting fixtures.
- Use with Schneider Electric occupancy sensors.
- All models are constructed with UL 94 V -O rated plastics.
- UL/cUL listed.


## Dimming Automatic Load Control Relay SLSEDC120 and SLSEDC277

It provides a means of turning on/off and dimming control of emergency. The DALCR is designed to detect power outage events and switch on the connected emergency lighting load to maximum light level. The DALCR sends phase angle, $0-10 \mathrm{~V}$, and three-wire ballast loads to full bright in a emergency egress lighting event. When utility power is restored, the units will revert back to their previous controlled state.

Technical Information

| Model | SLSEDC120 | SLSEDC277 |
| :--- | :--- | :--- |
| Ballast | 120 Vac, 20 A | 277 Vac, 20 A |
| Tungsten | 120 Vac, 1800 W | 277 Vac, 1500 W |
| General Use | 20 A | 20 A |
| Wiring | 14 AWG |  |
| Standards | UL/cUL listed; UL 924, UL 94V-0 Flame Rating | 4 in. square electrical enclosure. Mount in either the same location of the controlled lighting, or in a <br> remote location away from the controlled lighting. |
| Mounting | 16 oz. (453.6 g) |  |
| Weight | $32^{\circ} \mathrm{F}$ to $140^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.60^{\circ} \mathrm{C}\right)$ |  |
| Temperature | $5.125 \mathrm{in} . \times 5.125 \mathrm{in} . \times 2.25 \mathrm{in} .(130.175 \mathrm{~mm} \times 130.175 \mathrm{~mm} \times 57.15 \mathrm{~mm})$ |  |
| Dimensions (LxWxH) |  |  |

*For Diagram see technical section page 32

| Catalog Number | Description |
| :--- | :--- |
| SLSEDMC120 | Dimming Automatic Load Control Relay 120 V |
| SLSEDMC277 | Dimming Automatic Load Control Relay 277 V |



Dimming Automatic Load Control Relay

## Product Features

- 120 V or 277 V .
- Meets NEC2011 Article 7
- Patented self-test feature that shows emergency power is operating every time the light switch is turned OFF.
- Visible LEDs and test switches for easy diagnostics.
- No programming required and easy to install.
- Use with new or existing lighting fixtures.
- Use with C-Bus and other dimming solutions, $0-10 \mathrm{~V}$, phase angle, and DALI.
- All models are constructed with UL 94 V-O rated plastics.
- UL/cUL listed.


## Panel Mount Automatic Load Control Relay SLSEPMC120 and SLSEPMC277

The Panel Mount Automatic Load Control Relay is a UL 924 Listed emergency lighting control device. It provides a means of turning on and off emergency lighting along with regular lighting. The Panel Mount Automatic Load Control Relay is designed to sense when a power outage occurs, then switches on the connected emergency lighting load.

Technical Information


Panel Mount Automatic Load Control Relay

## Product Features

- 120 V or 277 V.
- Meets NEC2011 Article 700
- Patented self-test feature that shows emergency power is operating every time the light switch is turned OFF.
- Visible LEDs and test switches for easy diagnostics.
- No programming required and easy to install.
- Use with new or existing lighting fixtures.
- Suitable for use with Schneider Electric relay panels or Powerlink Lighting Control Systems.
- All models are constructed with UL 94 V-O rated plastics.
- UL/cUL listed.


## Emergency Lighting Control Relay



## Emergency Lighting Dimmer Control



Class 2 Lighting Control Panel Communication

## Emergency Lighting Control Relay Panel Mount




Emergency Lighting Control Panellboards


## Emergency Lighting Control Panels/Panelboards

Operational processes, code compliance, cost reduction, sustainability solutions, architectural aesthetics - the list of commercial facility needs is long and difficult to balance.

A key factor in all of the above, lighting contributes to facility costs and operations. With lighting control enhancements you can gain energy efficiency, cost savings, sustainability, along with personal comfort and convenience. Emergency egress lighting requirements can be a complicating factor in effective lighting design and energy management.

## Simplifies Design Process

- Allows standard lighting fixtures to be used for emergency lighting
- Provides ability to share lighting controls such as timers, switches, and occupancy sensors with emergency egress lighting


## Speeds Installation

- Factory assembled and installs quickly and easily reducing labor time and costs
- Space saving design with less wiring and easy access


## Supports Sustainability

- Normal use of schedule, switch, and occupancy-sensor device controls to be shared on emergency lighting circuits reduces energy waste
- Reduced wiring and lighting fixtures needed
- Easily supports centralized power source (Generator or inverter) for emergency lighting eliminating distributed emergency batteries


## Streamlines Maintenance Testing

- Patented "switch test" - test buttons at panels/panelboards for each ALCR [NEC (NFPA70) and UL 924]
- Visible LEDs for utility and emergency power diagnostics
- Centralized location for facility-wide emergency lighting maintenance and testing


## Emergency Lighting Control Panel

With the Emergency Lighting Control Panels by Schneider Electric, design, installation, inspection, and ongoing testing requirements for emergency lighting are streamlined. Energy efficiency is gained by allowing the normal use of schedule, switch, and occupancy-sensor device controls to be shared on emergency lighting circuits. This innovative, centralized, control solution for emergency lighting is a fail safe approach in support of improved sustainability.

## Ordering Information

ELCPs are ordered based on the enclosure mounting location (surface or flush), the number of ALCRs, and the voltage used by the panel mounted devices ( 120 V or 277 V ).


## Panel Number Explanation (Key)

(A) Emergency panel

B $X=$ The number of panel mounted devices
(C) $S=$ Surface mount,

F = Flush mount
D $1=120 \mathrm{~V}$
$2=277 \mathrm{~V}$
Each shipment contain one enclosure with 6 to 24 panel mounted devices (SLSEPMC120 or SLSEPMC277) and this instruction bulletin.

Note: ELCPs are avaliable for order with an even number of ALCRs, ranging from 6 to 24 ALCRs.

For Diagram see technical section page 39


Emergency Lighting Control Panel

## Product Features

- Designed to be mounted between emergency and regular circuit breaker panelboards
- Isolated power channel design ensures emergency and regular power never share the same space in accordance with NEC
- Supports from 6 to 2420 A Automatic Load Control Relays (ALCR)
- Available in 277 Vac and 120 Vac
- Short Circuit Current Rating 65 kA @ 120 Vac, 18 kA @ 277 Vac
- UL 924 and UL 50 Listed
- NEMA ${ }^{\oplus}$ Type 1 enclosure
- Available in fl ush and surface mount
- Equipped with lockable covers
- Accepts up to 10 AWG wire for long wire runs
- Onboard test switch for each relay simplifies ongoing maintenance requirements
- Integrates with lighting control products


## Emergency Lighting Control Panelboard

Schneider Electric introduces the first centralized, all-in-one panelboard with onboard automatic load control relays (NEC (NFPA70) and UL 924). This unique combination of breaker and ALCR (NEC (NFPA70) and UL 924) panelboard allows facilities to streamline operational processes, reduce costs, improve sustainability, and use advanced lighting control technologies. It also easily supports a centralized emergency power source (generator or inverter) for emergency lighting.

## This elegant solution simplifies:

- Integrates multiple ALCR [NEC (NFPA70) and UL 924] and emergency lighting breakers into a centralized, self contained panelboard
- Consolidates standard lighting fixtures with emergency lighting
- Provides ability to share lighting controls such as timers, switches, and occupancy sensors with emergency egress lighting


## Product Features

- Emergency Lighting Control Panelboard (2-16 Automatic Load Control Relays with a option of NF or NQ breakers)
- Available in both 120 V and 277 V models as well as 125 and 250 Amp
- Suitable for use with Schneider Electric Relay Panels or Powerlink Lighting Control Systems
- UL listed



## Emergency Lighting Control Panel <br> Panel Installation

Typical system configuration utilizing the G3 Powerlink Panelboard. The Emergency lighting control panelboard is also compatible with other system and relay configurations.


## Emergency Lighting Control Panelboard Panelboard Installation

Typical system configuration utilizing the G3 Powerlink Panelboard. The Emergency lighting control panelboard is also compatible with other system and relay configurations.


# Current Limiting Panels for Track Lighting 




## Current Limiting Panels

Energy codes typically require lighting power density calculations for track lighting to be based on the linear feet of installed track. Some codes stipulate multipliers as low as 30W per foot of track, while others use a multiplier as high as 70W per foot of track. When energy
efficient lighting is used, the connected load is typically much less than the per-foot multipliers given in the energy codes. This penalizes lighting designs that employ track lighting and may threaten retail environments where higher light levels are needed.

## Current Limiting Panels

Current Limiting Panels eases the burden of meeting today's stringent energy codes like California Title 24. Typically used for track lighting applications, these panels limit the power available to a lighting branch circuit by incorporating a special circuit breaker into the branch circuit.

Because the Current Limiting panel limits the available power to a specified level, designers can better reflect the actual power requirements into their load density calculations. Power level will be substantially lower than by using the standard multipliers given for track lighting.

Panels are readily accessible providing easy access for inspection and maintenance. These panels also incorporate circuit breakers rated for the higher available fault currents found on many 120 V systems. In addition, the use of supplementary protectors provides a convenient means for isolating individual track circuits.


Current Limiting Panel

## Technical Information

| Item | Track-Limiting Panel |
| :--- | :--- |
| Type | NEMA 1 Indoor |
| Box | Galvanized steel |
| Finish | ANSI 49 Gray |
| Voltage Rating | 120 VAC@10 kA or 277 VAC@5 kA |
| Short Circuit Current Rating | 10,000 A |
| Branch Circuit <br> Ampere Ratings | $0.5 \mathrm{~A}, 1 \mathrm{~A}, 2 \mathrm{~A}, 3 \mathrm{~A}, 4 \mathrm{~A}, 5 \mathrm{~A}, 6 \mathrm{~A}, 7 \mathrm{~A}, 8 \mathrm{~A}, 10 \mathrm{~A}, 15 \mathrm{~A}, 16 \mathrm{~A}$ |
| Branch Circuit Terminals | Box lugs: \#18-4 AWG (1-25 mm²) |
| Operating Environment | $77^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right)$ |
| Standards | $\mathrm{UL} 1077, \mathrm{UL508A}$ |
| Listings/Certifications/ <br> Compliance | $\mathrm{California} \mathrm{Title} \mathrm{24} ,\mathrm{ASHRAE} \mathrm{90.1} \mathrm{compliant}$ |

Product Features

- Readily accessible panel mounted enclosures
- Flush or surface mounting
- Hinged door with keylocking latch
- Up to 42 circuit breakers per enclosure
- Circuit breakers rated 0.5 A - 16 A
- Factory assembled, tested, and labeled
- CA Title 24 compliant

Enclosures are available for mounting up to 21 or 42 circuits. Both enclosures are available for flush or surface mounting.

| Enclosure | Enclosure Cabinet Dimensions $(H \times W \times$ D $)$ |
| :--- | :--- |
| $\mathbf{1 2 M}$ | $14.25 \mathrm{in} . \times 9 \mathrm{in} . \times 3.75 \mathrm{in} .(362 \mathrm{~mm} \times 229 \mathrm{~mm} \times 95 \mathrm{~mm})$ |
| $\mathbf{2 1 M}$ | $14.25 \mathrm{in} . \times 3.75 \mathrm{in} . \times 17.92 \mathrm{in} .(362 \mathrm{~mm} \times 95 \mathrm{~mm} \times 455 \mathrm{~mm})$ |
| $\mathbf{4 2 M}$ | $14.25 \mathrm{in} . \times 3.75 \mathrm{in} . \times 33.78 \mathrm{in} .(362 \mathrm{~mm} \times 95 \mathrm{~mm} \times 858 \mathrm{~mm})$ |

Energy codes typically calculate track lighting loads based on linear feet of installed track. Some codes use a multiplier as low as 30 watts/foot while others use a multiplier as high as 70 watts/foot. When using the energy efficient lighting technologies available today, the connected load is typically much less than the per-foot multipliers used by most energy codes. This penalizes lighting designs that employ track lighting and wastes available lighting watts that could be used more effectively.

Below is a typical track lighting example. The Standard Layout consists of two 50' runs of single circuit track, each with sixteen 39W track heads for a total connected load of 1376W. The Revised Layout Using Short Track Segments has the same 1376W connected load but uses sixteen short 4' track segments (64'), each fed separately, to help minimize the impact of the watts per foot multiplier. The scenario with the Track-Limiting Panel uses the original two 50 ' runs of single circuit track, with each monitored by a 6 Amp current limiting circuit breaker that is closely matched to the actual connected load of 1376 W . This results in the minimum calculated watts per the energy codes.

## Without the Current Limiting Panel

## Standard Layout



100 ft of track $=4500 \mathrm{~W}^{*}$
*Based on 45W/ft multiplier of California Title 24

## Revised Layout Using Short Track Segments



## With the Current Limiting Panel

The Current Limiting Panel installs between the branch circuit breaker and the track lighting, solving the energy code calculation discrepancy, making the wattage calculation independent of track length.


## Relay Panels



## Relay Panels

Lighting control relay panels from Schneider Electric will put you in control of your lighting, your comfort and your energy costs. Regardless of your need, our relay panels give you a reliable solution at an affordable cost.

## Fully scalable solution

Whether you're creating a lighting control system for a single room or a whole facility, the Schneider Electric line of relay panels offer scalable systems to fit your needs now. And, as your building needs change, the system can easily grow to meet those demands.

Our solutions are designed around the size and requirements of your application. All this with a common platform and easy installation practices. Talk about flexibility

## Building automation integration

We have designed the LPB BACnet and LPL LonWorks panels to integrate easily with other facility operations. HVAC, security, fire, you name it. We've teamed up with other control manufacturers to ensure full compatibility and communication between systems. Just what you'd expect from a global electrical industry leader.

The result: seamless solutions that deliver the energy savings and connectivity you demand - meeting your highest performance and budget expectations. What could be simpler?

## Heavy-duty design

The lighting control relay panels offer a more robust solution with the inclusion of a removable hinged door with key lock. The heavy-duty design is ideal for placement in electrical rooms or exposed areas. Individually replaceable, all-enclosed relays also provide a more costeffective replacement solution.

## Energy savings

Lighting control holds incredible potential for energy savings. In fact, even with newer energyefficient lighting lamp and ballast combinations, lighting is still the number one source of energy consumption in any building.

## Automated occupant control

There's no reason to light a room when nobody's in it. Turning off lights in areas such as meeting rooms, corridors, and offices can reduce energy costs significantly.

## LPS panels LPS standalone. Easy control for low-voltage switching applications.

LPS panels reduce energy use by automatically shutting off lights in response to a scheduled time event from its integral time scheduler or in response to an external control device, such as a keypad switch, occupancy sensor or photocell. These panels are ideal for use in smaller commercial applications, such as small strip retail, office spaces and parking lots where a centralized building management system is not practical. Its simple, menu-driven interface is designed for easy programming and intuitive use for electricians, contractors and end-users.

For Diagram see technical section page 51

Robust, individually replaceable, molded-case relays are industry-leading in reliability.

The time controller features a 365-day, 7 -day repeating clock with full 24 hour scheduling functions and event priorities.

Relay controls that provide individual control of each relay, and feature easy to use push button membranes.

## Technical Information

| Catalog Number | Description |
| :--- | :--- |
| SERP8HSNC | Schneider Electric series relay panel 8 HID relays without controller |
| SERP16HSNC | Schneider Electric series relay panel 16 HID relays without controllers |
| SERP32HSNC | Schneider Electric series relay panel 32 HID relays without controllers |
| SERP48HSNC | Schneider Electric series relay panel 48 HID relays without controllers |
| SERP64HSNC | Schneider Electric series relay panel 64 HID relays without controllers |
| SERP4HS | Schneider Electric series relay panel 4 HID relays |
| SERP8HS | Schneider Electric series relay panel 8 HID relays |
| SERP16HS | Schneider Electric series relay panel 16 HID relays |
| SERP24HS | Schneider Electric series relay panel 24 HID relays |
| SERP32HS | Schneider Electric series relay panel 32 HID relays |

## Lighting Control Relay Switches

The Schneider Electric Lighting Control Relay Switches provide manual ON/OFF operation of lighting in zones. The switches are equipped with a switch based device using reversible polarity pulse technology. The switches are fully compatible with Lighting Control Relay Panels by Schneider Electric.

Manual ON/OFF is the most common override operation. Each switch provides ON/OFF action for individual relays or groups of relays (zones).


Key Switch (SERPKWS)


Push Button Switch (SERPWSxGyB*)


Switch (SLSLVS1Rx)


## Technical Information

| Key Switch (SERPKWS) | 3 Amp, 24 Vdc, Reversible polarity Impulse |
| :--- | :--- |
| Input/Output | 8 |
| Relays per switch | 6 Switches |
| Switches per Relay | Right/ON, Left/OFF |
| Operation (Turn key) | 1.5 Amp, 24 Vdc, Reversible polarity Impulse <br> Switch input from common terminal |
| Push button Switch (SERPWSxGyB*) | 4 |
| Input/Output | 6 LED Switches |
| Relays per switch | Press/ON, Press again/OFF |
| Switches per Relay | 3 Amp, 24 Vdc, Reversible polarity Impulse |
| Operation (Turn key) | 8 |
| Rocker Switch (SERPRWS) | 6 Switches |
| Input/Output | Press one side ON; press other side OFF |
| Relays per switch |  |
| Switches per Relay |  |
| Operation |  |

${ }^{*} x=$ the number of ganged switch locations. $y=$ the number of button/switches.
Note: All switches: use 18-24 AWG solid or stranded wire for Class 2 wiring connections.
For Diagram see technical section page 52 and 53

| Catalog Number | Switch type | Description |
| :--- | :--- | :--- |
| SERKWS | Key switch | Wall mounted momentary contact relay key switch |
| SERPRWS | Rocker switch | Wall mounted rocker-type relay switch |
| SERPPBWS | Push button switch ${ }^{\star \star}$ | Single all mounted, LED-indicating, push button <br> relay switch. |
| SERPWSxGyB* | Push button <br> switch | Single or multi-gang, single or multi-device wall <br> mounted push button relay switches with LEDs. |
| SERPWSMB | Mounting bracket | Used to mount single push button or <br> rocker switches |
| SERPWSFP | Filler plate | Used to fill blank positions in a wall bracket |
| SERPWPxGyB* | Cover plate | Brushed metal; for use with push button and <br> rocker-type switches only. |

${ }^{*} x=$ the number of ganged switch locations. $y=$ the number of button/switches.
${ }^{* *}$ Requires mounting and cover plates. May require filler plates.
***Finished assembly; mounting bracket and cover plate included.

| Catalog Number | Switch type | Description |
| :--- | :--- | :--- |
| SLSLVS1Rx | Decorator <br> 1 button switch | 1-button Schneider Electric relay panel switch <br> with LED |
| SLSLVS2Rx | Decorator <br> 2 button switch | 2-button Schneider Electric relay panel switch <br> with LED |

'X' = Designates color: W: White, I: Ivory, G: Gray, L: Light Almond, B: Black
For Diagram see technical section page 52 and 53

## Features

## Key Switch (SERPKWS)

- Wall mountable to any standard wall box
- Key operated (ON - turn right; OFF - turn left)
- Operates up to 8 relays per switch
- 6 switches per relay


## Push Button Switch (SERPWSxGyB*)

- Factory Assembled
- Includes mounting bracket, switch(es), cover plate
- LED ON/OFF indication
- Clear plastic labeling cap
- Operates up to 4 relays per switch
- 6 LED switches per relay


## Rocker Switch (SERPRWS)

- Wall mountable to any standard wall box (1-gang requires mounting bracket (SERPWSMB)
- Operates up to 8 relays per switch
- 6 switches per relay
- Optional filler plate (SERPWSFP)


## Push Button Switch (SERPPBWS)

- Wall mountable to any standard wall box
(1-gang requires mounting bracket
- LED ON/OFF indication
- Clear plastic labeling cap
- Operates up to 4 relays per switch
- 6 LED switches per relay
- Optional filler plate (SERPWSFP)


## Decorator Switch (SLSVS1RX)(SLSVS2RX)

- Provide simple momentary push button control
- LED models provide pilot lights or status outputs
- Designed for use with Schneider Electric relay panels
- Switches fit standard NEMA wall boxes
- Decorator-style enclosure; wall plate included
* $x=$ the number of ganged switch locations.
$y=$ the number of button/switches.
***Finished assembly; mounting bracket and cover plate included.


## LPB relay panels LPB BACnet. Combines complete control with BACnet.

LPB relay panels are designed to operate on a BACnet network where control intelligence is provided through a BACnet building automation system. These panels are ideal for medium to large facilities with a building management system utilizing BACnet where a low-cost means to achieve automatic shut-off is required. These panels are simple to install and commission, and offer seamless integration with a full-feature scheduler through a building management system. Switch overrides and photocells are easily added for complete control.

For Diagram see technical section page 53 and 54

Robust, individually replaceable, molded-case relays are industry-leading in reliability.

The BACnet controller integrates seamlessly with open protocol native BACnet.

Relay controls that provide individual control of each relay, and feature easy to use push button membranes.

Technical Information

| Catalog Number | Description |
| :--- | :--- |
| SERPB8HSNC | Schneider Electric series relay panel 8 HID relays without controllers |
| SERPB8HS | Schneider Electric series BACnet relay panel 8 HID relays |
| SERPB16HS | Schneider Electric series BACnet relay panel 16 HID relays |
| SERPB24HS | Schneider Electric series BACnet relay panel 24 HID relays |
| SERPB32HS | Schneider Electric series BACnet relay panel 32 HID relays |
| SERPB48HS | Schneider Electric series BACnet relay panel 48 HID relays |
| SERPB64HS | Schneider Electric series BACnet relay panel 64 HID relays |

## LPL panels LPL LonWorks. An integrated solution with native LonWorks protocol.

The LPL panels offer engineers and facilities managers all the flexibility they need to meet their requirements when dealing with lighting control inside their building, from a stand-alone system, to a soft-wired networked panels system or a fullyprogrammable network system.

LPL panel software scheduling and event programming capabilities will easily support all common sequences encountered in lighting control, and stackable, optional input/output cards program each input for your individual needs.

For Diagram see technical section page 55 and 56

## Technical Information

| Catalog Number | Description |
| :--- | :--- |
| SERPL8HS | Schneider Electric series LonWorks relay panel 8 HID relays |
| SERPL16HS | Schneider Electric series LonWorks relay panel 16 HID relays |
| SERPL24HS | Schneider Electric series LonWorks relay panel 24 HID relays |
| SERPL32HS | Schneider Electric series LonWorks relay panel 32 HID relays |
| SERPL48HS | Schneider Electric series LonWorks relay panel 48 HID relays |
| SERPL64HS | Schneider Electric series LonWorks relay panel 64 HID relays |

Robust, individually replaceable, molded-case relays are industry leading in reliability.

Stackable optional input/output controllers use LonWorks network communication to interoperate in highly functional, flexible and open building systems.


LPL panel

## LPS Lighting Control Relay Panel <br> Mounted Enclosure Dimensions (Without Doors)



|  | Measurements - mm (in.) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Relays | A | B | C | D | E | F | G | H | I | J | K | L | M | N | 0 | P | Q | R |
| 4 or 8* | $\begin{gathered} 42 \\ (1.7) \end{gathered}$ | $\begin{aligned} & 149 \\ & (5.1) \end{aligned}$ | $\begin{aligned} & 149 \\ & (5.1) \end{aligned}$ | $\begin{gathered} 46 \\ (1.8) \end{gathered}$ | N/A | N/A | $\begin{aligned} & 330 \\ & \text { (13) } \end{aligned}$ | $\begin{aligned} & 381 \\ & (15) \end{aligned}$ | $\begin{gathered} 345 \\ (13.6) \end{gathered}$ | $\begin{aligned} & 381 \\ & (15) \end{aligned}$ | $\begin{gathered} 90 \\ (3.5) \end{gathered}$ | $\begin{gathered} 101 \\ (4) \end{gathered}$ | $\begin{gathered} 101 \\ (4) \end{gathered}$ | $\begin{gathered} 90 \\ (3.5) \end{gathered}$ | N/A | N/A | $\begin{gathered} 46 \\ (1.8) \end{gathered}$ | $101.6$ (4) |
| 4 or $8^{* *}$ | $\begin{gathered} 42 \\ (1.7) \end{gathered}$ | $\begin{aligned} & 149 \\ & (5.1) \end{aligned}$ | $\begin{array}{r} 149 \\ (5.1) \end{array}$ | $\begin{gathered} 46 \\ (1.8) \end{gathered}$ | N/A | N/A | $\begin{gathered} 279.4 \\ (11) \end{gathered}$ | $\begin{aligned} & 305 \\ & (12) \end{aligned}$ | $\begin{gathered} 228.6 \\ (9) \end{gathered}$ | $\begin{aligned} & 305 \\ & (12) \end{aligned}$ | $\begin{gathered} 90 \\ (3.5) \end{gathered}$ | $\begin{gathered} 101 \\ (4) \end{gathered}$ | $\begin{gathered} 101 \\ (4) \end{gathered}$ | $\begin{gathered} 90 \\ (3.5) \end{gathered}$ | N/A | N/A | $\begin{gathered} 46 \\ (1.8) \end{gathered}$ | $\begin{gathered} 101.6 \\ (4) \end{gathered}$ |
| 16 | $\begin{gathered} 42 \\ (1.7) \end{gathered}$ | $\begin{aligned} & 149 \\ & (5.1) \end{aligned}$ | $\begin{aligned} & 149 \\ & (5.1) \end{aligned}$ | $\begin{gathered} 46 \\ (1.8) \end{gathered}$ | N/A | N/A | $\begin{aligned} & 330 \\ & \text { (13) } \end{aligned}$ | $\begin{aligned} & 381 \\ & (15) \end{aligned}$ | $\begin{gathered} 556 \\ (21.9) \end{gathered}$ | $\begin{gathered} 592 \\ (23.3) \end{gathered}$ | $\begin{gathered} 94 \\ (3.7) \end{gathered}$ | $\begin{gathered} 101 \\ (4) \end{gathered}$ | $\begin{gathered} 101 \\ (4) \end{gathered}$ | $\begin{aligned} & 101 \\ & (4) \end{aligned}$ | $\begin{gathered} 101 \\ (4) \end{gathered}$ | $\begin{gathered} 94 \\ (3.7) \end{gathered}$ | $\begin{gathered} 46 \\ (1.8) \end{gathered}$ | $101.6$ <br> (4) |
| 24 or 32 | $\begin{gathered} 60 \\ (2.4) \\ \hline \end{gathered}$ | $\begin{array}{r} 194 \\ (7.6) \\ \hline \end{array}$ | $\begin{array}{r} 194 \\ (7.6) \end{array}$ | $\begin{gathered} 60 \\ (2.4) \end{gathered}$ | $\begin{aligned} & 27.87 \\ & (1.10) \end{aligned}$ | $\begin{aligned} & 27.05 \\ & (1.08) \end{aligned}$ | $\begin{gathered} 406.8 \\ (16) \end{gathered}$ | $\begin{aligned} & 508 \\ & (20) \\ & \hline \end{aligned}$ | N/A | $\begin{gathered} 850 \\ (33.5) \end{gathered}$ | $\begin{gathered} 55 \\ (2.2) \end{gathered}$ | $\begin{array}{r} 190 \\ (7.5) \end{array}$ | N/A | N/A | $\begin{array}{r} 190 \\ (7.5) \end{array}$ | $\begin{gathered} 55 \\ (2.2) \end{gathered}$ | $\begin{gathered} 55 \\ (2.2) \end{gathered}$ | $\begin{gathered} 101.6 \\ (4) \end{gathered}$ |

* SERPB
** SERP4HS or SERP8HS

Flush-Mounted Door Dimensions

Flush - Door


Flush - Plate


| Measurements - mm (in.) |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Relays | A | B | C | D | E | F |
| 16 | $349(13.7)$ | $493(19.4)$ | $582(22.9)$ | $704(27.7)$ | $493(19.4)$ | $704(27.7)$ |
| 24 or 32 | $478(18.8)$ | $620(24.4)$ | $838(33)$ | $962(37.9)$ | $620(24.4)$ | $962(37.9)$ |

## Lighting Control Relay Switches



Side View

Push button


## Front View



Rocker Switch


Side View


Front View


Top View

## Lighting Control Relay Switches (cont.) <br> Pushbutton (Individual)



Side View


Front View


Top View

## LPB Lighting Control Relay Panel

## Wiring



## LPB Lighting Control Relay Panel (cont.)

Mounted Enclosure Dimensions (Without Doors)


Flush-Mounted Door Dimensions

Flush - Door


Flush - Plate


| Measurements - mm (in.) |  |  |  |  |  |  |  | C | D | E | F |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Relays | A | B | C |  |  |  |  |  |  |  |  |
| 8 | $349(13.7)$ | $493(19.4)$ | $371(14.6)$ | $493(19.4)$ | $493(19.4)$ | $493(19.4)$ |  |  |  |  |  |
| 16 | $349(13.7)$ | $493(19.4)$ | $582(22.9)$ | $704(27.7)$ | $493(19.4)$ | $704(27.7)$ |  |  |  |  |  |
| 32 | $478(18.8)$ | $620(24.4)$ | $838(33)$ | $962(37.9)$ | $620(24.4)$ | $962(37.9)$ |  |  |  |  |  |
| 48 or 64 | $478(18.8)$ | $620(24.4)$ | $1238(48.7)$ | $1362(53.6)$ | $620(24.4)$ | $1362(53.6)$ |  |  |  |  |  |

## LPL Lighting Control Relay Panel <br> Input Wiring (Optional)



## Output Wiring



## LPL Lighting Control Relay Panel (cont.) <br> Wall- and Surface-Mounted Enclosure Dimensions (Without Doors)



Surface-Mounted Door Dimensions

Flush - Door


Flush - Plate


|  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Relays | A | B | C | D | E | F |
| 8 | $349(13.7)$ | $493(19.4)$ | $371(14.6)$ | $493(19.4)$ | $493(19.4)$ | $493(19.4)$ |
| 16 | $349(13.7)$ | $493(19.4)$ | $582(22.9)$ | $704(27.7)$ | $493(19.4)$ | $704(27.7)$ |
| 32 | $478(18.8)$ | $620(24.4)$ | $838(33)$ | $962(37.9)$ | $620(24.4)$ | $962(37.9)$ |
| 48 or 64 | $478(18.8)$ | $620(24.4)$ | $1238(48.7)$ | $1362(53.6)$ | $620(24.4)$ | $1362(53.6)$ |

# Architectural Dimming 



Architectural Dimming

Architectural dimming provides an opportunity to transform a space, manage moods, conserve energy, and improve the quality of life.

To make the building environment as responsive, productive and attractive as possible, Schneider Electric offers a wide range
of architectural dimming solutions. From
convention centers to libraries or restaurants
to ballrooms our dimming systems are capable of providing the most demanding precise control tailored for the application.

# inTouch control stations for Use with Architectural Dimming Systems by Schneider Electric ${ }^{\text {m' }}$ 

The inTouch Control Stations by Schneider Electric offer a powerful and elegant interface to the Architectural Dimming Systems by Schneider Electric.
The inTouch family of products offers an extensive line of user interfaces including 6 and 12 channel master stations as well as a wide variety of entry stations.

The inTouch stations use capacitive touch technology providing touch sensitivity and immediate response. These stations provide a durable user interface with no mechanical parts making them perfect for restaurants, conference rooms, convention centers, and auditoriums.

In conjunction with the Wall-Mounted Architectural Dimming Panels, the inTouch master stations provide control of two areas with up to 18 presets per area. In conjunction with the Architectural Dimming Racks, the stations provide recall of 24 presets and 16 areas as well as other functionality including; macros, room partition control, alternate actions, on/off pairs.


## Benefits

- Aesthetic design/state of the art interface
- Durable design for rugged environments
- Ease of programming

Technical Information

| Master Stations |  | Programmable presets with individual channel control. |
| :--- | :--- | :--- |
| Mechanical | Frame | Rugged ABS frame with a Lexan overlay covering the control section. |
|  | Mounting | Mounts in a standard multi-gang masonry style backbox (furnished by others) with no visible fasteners. |
| Display | A graphic level backlit LCD displaying the active preset name, fade time, area name, channel page <br> number (ADSM612 only), preset (scroll) names, and menu functions. |  |
| Controls | Capacitive touch sensing buttons and channel controllers with no moving parts.* |  |
| Master Station Backlit <br> Control Buttons | Full, Off, Scroll, Select, Store, Menu |  |
| IR Control | Integral infrared receiver for wireless preset selection using a CWC handheld transmitter. |  |
| Network Wiring | Stations require two shielded pair (Belden \#9729) plus 3 \#14AWG wires. |  |

## Product Features

- Capacitive touch technology
- Commercial grade construction with no mechanical buttons or potentiometers
- 6 or 12 channel sliders with LED level indicators (Master Stations)
- Graphic level LCD display
- Multiple channel pages (ADSM612 with Dimmer Rack)
- Handheld Infrared remote control (optional)
*Stations with mechanical buttons or potentiometers are not considered equal.

Ordering information: Contact your local Schneider Electric sales representative for more information.

## Wall-Mounted Dimming Systems Architectural Dimming Panels

The Wall-Mounted Architectural Dimming Panel by Schneider Electric provides a simple and easy to install dimming system for environments looking to enhance the architectural design, set mood lighting, set focal points in the space, and save energy.

These dimming panels are compact in their design. They incorporate 6, 9, and 12 circuit configurations.
The panels are available in 120 VAC and 277 VAC options. The dimming modules are available in 2400 watts universal, 3-wire, fluorescent, and non-dim lighting loads.

These panels support multiple digital control inputs including the inTouch Control Stations by Schneider Electric and DMX512 based controllers. Several life safety features are also included in the design of the dimming panels including fire alarm bypass and phase loss control.

## Benefits

- Simple, Cost Competitive Design for most dimming applications
- Easy to Install and Program
- Flexibility of control from multiple systems


## Technical Information

## Dimming Panel Specifications

| Enclosure | Modular, welded steel cabinet with a textured black powder coat finish and a removable front panel. <br> Wall mounted design for surface or recessed mounting. |
| :--- | :--- |
| Dimensions | $17 \mathrm{in} .(\mathrm{W}) \times 39 \mathrm{in} .(\mathrm{H}) \times 4 \mathrm{in} .(\mathrm{D}), 43.2 \mathrm{~cm}(\mathrm{~W}) \times 99.1 \mathrm{~cm}(\mathrm{H}) \times 10.2 \mathrm{~cm}(\mathrm{D})$ |
| Main and Neutral Lugs | Rated to 100 amps per phase for $120 / 208 \mathrm{~V}, 60 \mathrm{~Hz}, 3$ phase, 4 wire input. <br> Main lugs suitable for up to \#1/0 Ga wire. (Optional 277 V lugs available as required). <br> Operating Temperatures <br> Load wire terminals <br> $104^{\circ} \mathrm{F}$ ambient $\left(40^{\circ} \mathrm{C}\right)$ Thermostatically controlled fans \#8 AWG max. |

## Standard Universal Dimmer Specifications

| Dimmer Rating | 2400 watts continuous duty (1200 watts when used with electronic low-voltage transformers). |
| :--- | :--- |
| Overload Protection | 20 amp, fully magnetic, switch duty rated circuit breakers per dimmer that is UL listed under UL489 as <br> a branch circuit protector with a minimum 10,000 AlC rating. |
| Filtering | Toroidal choke to limit the current rise time to a minimum of 350 micro-seconds as measured from <br> $10 \%$ to $90 \%$ of the output waveform at maximum level. |
| Load Control Compatibility | Universal dimmer to control incandescent, low-voltage (electronic or magnetic), neon/cold-cathode, <br> quartz, 2-wire phase control dimmable fluorescent ballasts, and non-dimmed (switched) loads. <br> (Optional) Provide dimmers to control 0-10v and 3-wire dimmable fluorescent ballasts as scheduled. |
| Dimmer Performance |  |
| Temperature Range | $0^{\circ}$ to $104^{\circ}$ F ambient ( $0^{\circ}$ to $40^{\circ} \mathrm{C}$ ) |
| Line Voltage Range | 90 to 140 volts |
| Dimming Curve | Square law |
| Voltage Regulation | Within 3.5 volts of the input voltage |
| Efficiency | Exceeds $95 \%$ |
| Output | Symmetrical alternating current (eliminates any DC component to the load) |
| Certifications | UL and cUL Listed |



Wall-Mounted Architectural Dimming Panels

## Product Features

- Magnetic Circuit Breaker for Over Current Protection
- 6, 9, \& 12 Circuit Configurations
- 2400 watts of Universal Dimming
- Support Incandescent, Quartz, Neon/Cold Cathode, Low Voltage, Fluorescent, and NonDim Loads
- Fire Alarm Bypass
- Phase Loss Control
- Supports inTouch Control Stations by Schneider Electric and DMX512 digital controls
- Programmable Dimmer to Channel Patch

Ordering information: Contact your local Schneider Electric sales representative for more information.

## Rack-Mounted Dimming Systems

The Rack-Mounted Architectural Dimming Panels by Schneider Electric are ideal for small to large projects including professional and educational theaters, television studios, hotels, churches, and convention centers. The universal dimmers include dual 2.4 kW and single 6 KW modules ( 120 V ) or $5.4 \mathrm{~kW}(277 \mathrm{~V})$ with the standard rise times are 350 uS with 500 uS and 800 uS options. Other modules include nondim, constant circuits, and dimmable fluorescent ballast control, and 3-Wire ballast.

The Rack-Mounted Dimming Panels are compatible with the inTouch Control Stations by Schneider Electric and provide a seamless interface between a theater's stage and house light controls. For architectural applications, the basic rack mounted system provides 24 presets in each of 16 independent areas with 128 system control channels while the advanced option expands the system to 512 channels over 64 areas. An Ethernet option provides the connection for remote system monitoring, programming, and subsystem networking. All Ethernet based control and monitoring can be provided using a compatible console or PC.

Architectural applications can be designed as smaller subsystems and networked for single point control, ideal for convention center and large hotel projects.


Rack-Mounted Architectural Dimming Panels

## Benefits

- Simple, Cost Competitive Design for most dimming applications
- Easy to Install and Program
- Flexibility of control from multiple systems


## Technical Information

## Dimmer Cabinet Specifications

| Enclosure |  | Modular, freestanding cabinet with a welded steel frame and locking door over the dimmers. |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Dimensions |  | - ADSR30 16.5 in. (W) $\times 43.6$ in (H) $\times 11.6$ in. (D) <br> - ADSR60/ADSR120 19.2 in. (W) $\times 80.2$ in (H) 20.5 in. (D) |  |  |
| Main and Neutral Lugs |  | 120/208 V, 60 Hz, 3-Phase, 4-Wire operation $277 / 480 \mathrm{~V}, 60 \mathrm{~Hz}$, 3-Phase, 4-Wire operation |  |  |
| Operating Temperatures |  | $104^{\circ} \mathrm{F}$ ambient ( $40^{\circ} \mathrm{C}$ ) Thermostatically controlled fans |  |  |
| Dimmer Mounting |  | Removable Steel trays w/ dimmer alignment guides |  |  |
| Load Wire Lugs |  | up to \#6 AWG (Optional \#2 AWG) |  |  |
| Certifications |  | UL and cUL Listed |  |  |
| Weight | Empty | $96 \mathrm{lbs} .(43.5 \mathrm{~kg}$ ) | $275 \mathrm{lbs} .(124.7 \mathrm{~kg}$ ) | $310 \mathrm{lbs} .(140.6 \mathrm{~kg}$ ) |
|  | Full | 176 lbs. (79.8 kg) | $446 \mathrm{lbs} .(202.3 \mathrm{~kg}$ ) | $655 \mathrm{lbs} .(301.6 \mathrm{~kg}$ ) |

## Product Features

- 30,60 , or 120 dimming circuits per rack
- Dual 2.4 KW or single 6 KW dimmers per module for 120 V applications. Dual 5.4 KW dimmers per module for 277 V applications
- 350 us rise time is standard. 500 uS and 800 uS rise times are optional
- Fully magnetic dimmer circuit breakers
- Dimmer feedback and status reporting option
- Advanced configuration programming
- 99 backup cues
- Opto-isolated dual DMX connections
- Ethernet-based networking option
- Off-line programming


## Technical Information (cont.)

## Standard Universal Dimming Module Specifications

| Dimmer Rating | $120 / 208 \mathrm{~V}: 2.4 \mathrm{~kW}^{\star}$ dual or 6.0 kW single module 2400 watts continuous duty or 277/480 V: 5.4 kW |
| :--- | :--- |
| Overload Protection | 20 amp, fully magnetic, switch duty-rated circuit breakers/dimmer - UL listed under UL489 as a <br> branch circuit protector w/ a min. 10k AIC rating. |
| Filtering | Toroidal choke limiting the current rise time to a min. of 350 uS as measured from $10 \%$ to $90 \%$ of the <br> output waveform at max. level. |
| Load Control Compatibility | Universal dimmer controlling incandescent, low-voltage (electronic or magnetic), neon/cold-cathode, <br> quartz, 2-wire phase control dimmable fluorescent ballasts, \& non-dimmed (switched) loads. (Optional) <br> Provide dimmers to control 0-10v and 3-wire dimmable fluorescent ballasts as scheduled. |
| Dimmer Performance |  |
| Temperature Range | $0^{\circ}$ to $104^{\circ} \mathrm{F}$ ambient $\left(0^{\circ}\right.$ to $\left.40^{\circ} \mathrm{C}\right)$ |
| Line voltage Range | 90 to 140 volts |
| Dimming Curve | Square law |
| Voltage Regulation | Within 3.5 volts of the input voltage |
| Efficiency | Exceeds $95 \%$ |
| Output | Symmetrical alternating current (eliminates any DC component to the load) |

*1200 watts when used w/ electronic low-voltage transformers

Ordering information

| Catalog Number | Description |
| :---: | :---: |
| 120/208 V Rack Standard Dimming Modules |  |
| ADSRD22 | Dual 2.4 kW dimmer module with 350 uS chokes |
| ADSRD22S | Dual 2.4 kW dimmer module with 350 uS chokes, sensing |
| ADSRD22HR | Dual 2.4 kW dimmer module with 500 uS chokes |
| ADSRD22HRS | Dual 2.4 kW dimmer module with 500 uS chokes, sensing |
| ADSRD22EHR | Single 2.4 kW dimmer module with 800 uS chokes |
| ADSRD22EHRS | Single 2.4 kW dimmer module with 800 uS chokes, sensing |
| ADSRD16 | Single 6.0 kW dimmer module with 350 uS chokes (no output circuit breaker) |
| ADSRD22CB | Dual 20 A constant circuit breaker module |
| ADSRD12FPC | Single 2.4 kW fluorescent dimmer module for phase control dimmable fluorescent ballasts (2 or 3 wire) |
| ADSRD12FDC | Dual 2.4 kW fluorescent dimmer module for dimmable fluorescent ballasts (0-10 VDC control) |
| ADSRD22ND | Dual 20 A non-dim module |
| ADSRDFM | Filler module |
| 120/208V Rack Dual Width Dimming Modules |  |
| ADSRD16HR | Single 6.0 kW dimmer module w/ 500 uS chokes \& 4-20 A branch circuit breakers |
| ADSRD16HRS | Single 6.0 kW dimmer module w/ 500 uS chokes w/ sensing \& 4-20 A branch circuit breakers |
| 277/480V Rack Standard Dimming Modules |  |
| ADSR2H22 | Dual 5.4 kW dimmer module w/ 350uS chokes |
| ADSR2H22FL | Single 5.4 kW fluorescent dimmer module for phase control dimmable fluorescent ballasts (2 or 3 wire) |
| ADSR2H22FDC | Dual 5.4 kW fluorescent dimmer module for dimmable fluorescent ballasts ( $0-10 \mathrm{VDC}$ control) |
| ADSR2H22ND | Dual 20 A non-dim module |
| ADSR2H22CB | Dual 20 A constant circuit breaker module |

Contact your local Schneider Electric sales representative for more information.

## inTouch control stations <br> Master Stations



6-Channel Master Station (ADSM606)

## Remote Entry Stations



2-Button Remote Entry Station (ADSE602)


Infrared Remote Entry Station (ASEIR)


3-Button Remote Entry Station (ADSE603)


Combine Closure Entry Station (ADSECC)


12-Channel Master Station (ADSM612)


6-Button Remote Entry Station (ADSE606RL)


Touch Lock/Unlock Entry Stations (ADSEL/UL)


Infrared Remote Control (Optional) (ADSPWC)

## Wall-Mounted Dimming Systems <br> Dimming Panel Dimensions and Conduit Stub Locations



Side View


Front View


Back View


Power and control conduit entry

Control only conduit entry

## Rack-Mounted Dimming Systems



Side View


Front View (ADSR60)


Top View

Top View


Side View


Side View


Front View

# Measurement \& Verification Panels (MVP) 



## Measurement \& Verification Panels (MVP)

Understanding the cost of lighting - how much, when and where is essential to gaining a grasp on your stainability measures. The MVP Panelboards measure energy use all the way to the individual circuit level, allowing you to isolate and manage energy use more precisely for greater energy efficiency and savings. Having the ability to independently control and monitor individual branch circuit loads opens a wide range of options to better understand the dynamics of a building's performance and make informed decisions on sustainability solutions.

Until now, energy use has been monitored at the panel level preventing facility managers from pin-pointing energy waste. Improving efficiency and reducing energy use costs required a certain amount of guesswork. With MVP, building managers are now able to identify true "energy wasting culprits" and make adjustments accordingly. MVP will reveal if energy waste is due to electronics in a specific building zone or floor that are left on during unoccupied times, or if lighting load adjustments should be made. The precise power load and energy use data MVP provides, coupled with its lighting controls, allows energy managers to save money while working towards meeting their sustainability goals.

## Measurement and Verification Panelboards (MVP) NF and NO Panelboards

NF and NQ Measurement and Verification Lighting Panelboards are a critical component to any building's sustainability solutions. In addition to the standard branch over current protection, NF panelboards also incorporate individual branch circuit power metering. Crucial to energy management, this feature allows you to monitor the energy performance of electrical systems at the branch circuit level for improved building-wide energy efficiency. This capability also allows you to verify that sustainable energy conservation measures are performing their intended functions, and provides data for establishing baseline performance studies.

For Diagram see technical section page 69


## Features

- Factory assembled in a standard NF or NQ panelboard.
- Industry-leading monitoring capabilities for maximum power reliability.
- Branch circuit power meter supports up to 84 individual branch circuit monitoring points through board mounted individual CTs.
- Main metering capability through optionally provided CTs.
- Network
communications via Modbus ${ }^{\circledR}$ RTU.
- Available in 20 inch or 24 inch standard box widths.
- Compatible with PowerLogic ION Enterprise, PowerLogic System Manager, and PowerLogic SCADA software, giving you reliable, end-to-end power monitoring and control, or available as a standalone panelboard solution with our customized MVP Software.


## Measurement and Verification Panelboards (MVP) Powerlink MVP

Powerlink MVP Intelligent lighting panelboards provide a simple, cost effective, and energy code compliant way to meter and control branch circuits from a standard panelboard. Powerful microprocessor based controllers provide lighting control and power metering. Integral metering is accomplished using the PowerLogic branch circuit power meter (BCPM), a highly accurate, full-featured, multi-branch circuit power meter that provides unrivalled low-current monitoring.

## For Diagram see technical section page 69



## Features

- Verify energy savings by circuit, zone, space, or complete lighting system ${ }^{*}$
- Monitor performance to assure system is working as intended*
- Review data for planning and subsequent energy savings opportunities*
- Implement cost according to actual energy used*
- Measure occupancy and usage patterns
- Schedule events, view branch circuit status, and examine system event logs
- Reports for planning and energy savings opportunities
- Alarm notifications when operation falls outside of defined parameters
- Embedded web server
- Automatic sunrise/ sunset tracking with offsets
- Offers the widest dynamic monitoring range within its class
- Attain a granular vision of power and energy use to pinpoint areas for optimization or areas in need of additional capacity
*Requires BMS or Metering UI to utilize these features


## Powerlink Measurement and Verification Lighting Panelboard (MVP)

## Current Sensor Strips


1.0 in. option

$$
\underset{\sim}{\text { Slot: } 0.25 \times 0.5 \mathrm{in} .} \begin{aligned}
& (7 \times 13 \mathrm{~mm})
\end{aligned} \longrightarrow
$$



Circuit Board with Mounting Bracket



## Powerlink Lighting Control



## Powerlink Lighting Control

For many designers, the engineering of a suitable lighting control system has become a daunting task. The designer must balance space constraints, equipment/installation costs, maintenance and operational concerns, while ensuring a code-compliant installation. Fortunately, the Powerlink G3 lighting control system addresses concerns by:

## - Using standard lighting panelboards

All Powerlink G3 components mount in the panel just like a standard circuit breaker. Documenting your control system layout is as simple as indicating which branch circuits are to be controlled.

## - Saving space

Since the lighting control system is located inside the lighting panelboard, valuable wall and floor space is available for more productive uses. Schneider Electric also offers space-saving, columnwidth panelboards and flexible modular panelboard systems.

- Complying with codes

With today's high available fault currents, it's extremely important that your system meets code requirements. The Powerlink G3 system is fully UL listed and meets NEC ${ }^{\text {e requirements. }}$

## - Building Integration \& Control

Today more than ever, building owners and facility managers want to get the most out of every dollar invested in their building infrastructure. Powerlink lighting control systems integrate easily with other building systems as part of an energy management system or building automation system, supporting common open protocols such as BACnet and Modbus. Compared to standard lighting panelboards, Powerlink lighting control systems typically achieve enough energy savings to pay for the panelboard many times over.

## Powerlink

G3 Panel Mounted Components


Up to eight panels can be operated
from a single controller.


A self-contained power supply furnishes the power for remotely operated circuit breaker switching and for the system's electronics.

The intelligence of the Powerlink G3 system comes from its microprocessorbased controller. It processes many signals that originate externally from control devices, such as switches or sensors, or from its powerful internal time scheduler that switches breakers according to predefined daily schedules.

Innovative Schneider Electric remote-operated circuit breakers combine the protective features of conventional circuit breakers with the switching functions of a contactor.

Conventional EDB circuit breakers can be readily incorporated into a G3 panel.

Plug-on control bus strips act as the bridge between the circuit breakers and the electronic control components of a Powerlink G3 system.

## NF Panelboards, Column Width \& Custom Panel Boards

The NF Panelboard offers superior performance and application flexibility for commercial and industrial electrical systems up to $480 \mathrm{Y} / 277 \mathrm{~V}$. Schneider Electric is the only lighting control supplier that offers a full range of enclosure options including NEMA Type 3R, 5 and 12. The following designs are available to suit your needs:

- Standard - The NF Panelboard offers superior performance and application flexibility for commercial and industrial electrical systems up to $480 \mathrm{Y} / 277 \mathrm{~V}$. This versatile lighting and power distribution panelboard features a wide selection of circuit breakers, accessories, and ready-to-install kits, as well as $200 \%$ rated neutrals for non-linear loads.
- Column-width - These innovative panels are designed to fit into a standard size W, H, or I-beam support columns commonly found in distribution and industrial facilities. Column-width panelboards can also be wall mounted, saving valuable floor and wall space where tight equipment space is a concern.
- Modular Panelboard Systems (MPS) - This panel system bundles electrical distribution equipment into a single, factory assembled and wired integrated system. This approach replaces the traditional method of independently mounting each panelboard and lighting control system, which saves space and reduces installation time. Modular panelboard systems are tailored to specifications and are available with a mix of Schneider Electric NQOD, NF, NF Column-width and Schneider Electric Powerlink interiors, as well as optional power and control wiring, dry type transformers, lighting contactors, transient voltage surge suppression (TVSS) units, and enclosure space for field installed equipment. All MPS panelboards are Underwriters Laboratories (UL) Listed under File E33139 (Panelboard UL67).
- Integrated Power Center (IPC) - This integrated system offers the wide range of factory assembled and wired panelboards interiors, dry type transformers, and lighting control as offered with the MPS line. In addition, the IPC offers factory installed and programmed building management systems, automatic transfer switches, and motor starters. Regardless of your system complexity, Schneider Electric has the expertise to integrate your requirements into one optimized, cost effective, space saving solution. IPCs are Underwriters Laboratories (UL) Listed under file E83877 (Dead-Front Switchboard UL891).



## Powerlink Remotely Operated ECB-G3 Circuit Breakers

Powerlink G3 remotely operated circuit breakers are designed for installation in Schneider Electric NF Lighting Panelboards as part of the Schneider Electric Powerlink G3 Lighting Control System. These circuit breakers provide the same overcurrent protection as found in standard circuit breakers.

## The Best in Remote Operation

- Robust 24 Vdc motor and highly effective trip mechanism provide unequaled remote operation capability in terms of compact size, electrical ratings, and mechanical life.
- Motor and drive train can open and close the contacts when the circuit breaker handle is in the ON position.


ECB-G3 Series Remotely Operated Circuit Breakers

- Contacts cannot be closed remotely when the handle is in the OFF position or the circuit breaker is tripped.
- Manual override selector located on the front of the breaker provides by-pass of automated control command.
- In manual mode, the motor drive train is disconnected from the contact, allowing the circuit breaker handle

Product Features

- 200,000 cycles (ON/OFF) load endurance
- Remote and local status
- Manual override
- Extra large load terminal


## Tripping System with True RMS Sensing

- Schneider Electric Powerlink ECB-G3 circuit breakers have a permanent trip unit that contains a factory preset thermal (overload) trip element and a magnetic (short circuit) trip element in each pole.
- The thermal trip element - true RMS sensing and is calibrated to carry the continuous current rating of the circuit breaker at $140^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right)$ free air ambient temperature.


## Technical Information

| Voltage | 120 Vac | 240 Vac | $480 / 277$ Vac |
| :--- | :--- | :--- | :--- |
| Interrupting capacity | 65 KAIR | 65 KAIR | 14 KAIR |
| Terminals | $(1) \# 14-8$ AL or (1) \#14-8 CU |  |  |
| Standards | UL Listed 489, NEMA Standard AB-1-1986, CSA Standard 22.5 |  |  |

*For series connector ratings, see page 89

| Catalog Number | One-Pole | Catalog Number | Two-Pole | Catalog Number | Three-Pole |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ECB14015G3* | 15 Amp | ECB24015G3* | 15 Amp | ECB34015G3* | 15 Amp |
| ECB14020G3* | 20 Amp | ECB24020G3* | 20 Amp | ECB34020G3* | 20 Amp |
| ECB14030G3 | 30 Amp | ECB24030G3 | 30 Amp | ECB32030G3 | 30 Amp** |

[^1]
## ECB-G3EL Remotely Operated Circuit Breakers for Emergency Lighting Circuits

Powerlink ECB-G3EL circuit breakers provide a means to comply with the requirements of the NEC, 700.12. The circuit breaker contains both a remotely operated switched circuit for controlling the luminaires, and a manually operated unswitched circuit, which provides power to the unit emergency equipment's charging and detection circuit. Both circuits are electrically tied to the same source via a single common bolt-on connection that receives its supply from the panelboard bus.

Both circuits of the ECB-G3EL breaker contain a thermal-magnetic trip mechanism that protects their associated conductors from overcurrent. The circuit breaker provides a common trip function ensuring that both circuits will open whenever a fault occurs on either of the circuits. It also provides a common handle tie to ensure that both circuits are manually switched together.

Technical Information

| Voltage | 120 Vac | 240 Vac | $480 / 277$ Vac |
| :--- | :--- | :--- | :--- |
| Interrupting capacity | 65 kAIR | 65 KAIR | 14 kAIR |
| Terminals | (1) \#14-8 AL or (1) \#14-8 CU |  |  |
| Standards | UL Listed 489, NEMA Standard AB-1-1986, CSA Standard 22.5 |  |  |


| Catalog Number | Description |
| :--- | :--- |
| ECB142020G3EL | 20 Amp |



ECB-G3EL Remotely Operated Circuit Breakers for Emergency Lighting Circuits

Product Features

- 200,000 cycles load endurance
- Remote and local status
- Manual override
- Extra large load terminal


## Powerlink

## G3 Control Bus

Powerlink G3 Control Buses provide the interface between the system controller and remotely operated circuit breakers. Specifically, they distribute 24 Vdc switching power and control signals to switch remotely operated circuit breakers and report circuit breaker status back to the system controller.

One to four control bus strips can be mounted in a single panelboard. If only one control bus is required, it is always mounted on the left-hand side of a standard panelboard or at the top of a column-width panelboard.

## Technical Information

| Operating Temperature <br> (external panelboard ambient) | $23^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}\left(-5^{\circ} \mathrm{C}\right.$ to $\left.40^{\circ} \mathrm{C}\right)$ |
| :--- | :--- |
| Storage Temperature | $-4^{\circ} \mathrm{F}$ to $185^{\circ} \mathrm{F}\left(-20^{\circ} \mathrm{C}\right.$ to $\left.85^{\circ} \mathrm{C}\right)$ |
| Operating Humidity | $5 \%$ to $95 \%$ (non-condensing) |
| ESD Immunity | IEC 1000, Level 4 |
| RF Susceptibility | IEC 1000, Level 3 |
| Electrical Fast Transient <br> Susceptibility | IEC 1000, Level 3 |
| Electrical Surge Susceptibility, <br> power line | IEC 1000, Level 4 |
| Electrical Surge Susceptibility, <br> interconnection lines | IEC 1000, Level 3 |
| Standards | FCC Part 15, Class A; UL Listed 916 Energy Management Equipment |


| Catalog Number | Max. Control Circuits | Orientation |
| :--- | :--- | :--- |
| NF12SBLG3 | 12 | Left |
| NF12SBRG3 | 12 | Right |
| NF18SBLG3 | 18 | Left |
| NF18SBRG3 | 18 | Right |
| NF21SBLG3 | 21 | Left |
| NF21SBRG3 | 21 | Right |



Ceiling Mounted Occupancy Sensor Ultrasonic

## Product Features

- Attaches to NF Panelboard interior mounting rail.
- Modular connectors provide secure plug-in connections for remotely operated circuit breakers and control electronics.
- No open electronics.


## Powerlink Power Supply

Powerlink G3 Power Supply provides power to operate the controller, control buses and remotely operated circuit breakers. The power supply attaches to an NF Panelboard interior in the same manner as a standard 3 -pole circuit breaker.

The power supply derives its power from the panelboard interior bus and converts the line voltage into two separate supplies: one supply furnishes the controller with a 24 Vdc ,

Class 2 source; the other supply furnishes the control bus and subnet with a 24 Vdc , Class 1 source.
An optional type of power supply, furnished with primary leads, is available for use with a separately derived primary power source. This option is often used in applications where the system must remain operational during power outages. In such applications, the external leads are connected to an uninterruptible power supply (UPS) or alternate power source.

In 20-inch ( 508 mm ) wide panels, the power supply is always located in the upper left-hand corner of the interior. The controller is mounted adjacent to the power supply on the right-hand side.

Technical Information

| Operating Temperature <br> (external panelboard ambient) | $23^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}\left(-5^{\circ} \mathrm{C}\right.$ to $\left.40^{\circ} \mathrm{C}\right)$ |
| :--- | :--- |
| Storage Temperature | $-4^{\circ} \mathrm{F}$ to $185^{\circ} \mathrm{F}\left(-20^{\circ} \mathrm{C}\right.$ to $\left.85^{\circ} \mathrm{C}\right)$ |
| Operating Humidity | $5 \%$ to $95 \%$ (non-condensing) |
| ESD Immunity | IEC 1000, Level 4 |
| RF Susceptibility | IEC 1000, Level 3 |
| Electrical Fast Transient <br> Susceptibility | IEC 1000, Level 3 |
| Electrical Surge Susceptibility, <br> power line | IEC 1000, Level 4 |
| Electrical Surge Susceptibility, <br> interconnection lines | IEC 1000, Level 3 |
| Standards | FCC Part 15, Class A; UL Listed 916 Energy Management Equipment |


| Catalog Number | Voltage | Primary Source |
| :--- | :--- | :--- |
| NF120PSG3 | 120 V | Panel Bus |
| NF240PSG3 | 240 V | Panel Bus |
| NF277PSG3 | 277 V | Panel Bus |
| NF120PSG3L | 120 V | External Leads |
| NF240PSG3L | 240 V | External Leads |
| NF277PSG3L | 277 V | External Leads |

## Product Features

- Attaches to panelboard interior, occupies three adjacent pole spaces.
- External lead for connection to panel neutral.
- Modular connectors provide secure plugin connections for connection to left-hand side control bus and controller.
- LED indication of Class 1 and Class 2 voltage sources operational status.
- Removable communication terminal block for making subnet connections.
- Internally self-protected against short circuits and electrical surges.
- Low continuous power draw, less than 20 VA.
- Optional external leads for connection to remote power source.
- No open electronics.


## Powerlink Controllers

Powerlink G3 product line offers a simple, cost-effective means for controlling branch lighting circuits. Five distinct systems provide a variety of capabilities to meet virtually any need.

## 500 Level System

- Designed to be used in conjunction with other control devices such as: External time clocks, access readers, occupancy sensors, or other building systems.
- Control devices provide either dry-contact closures or digital serial communications.
- Incorporates internal programmable timers.
- Controller responds to commands from control devices by automatically switching a programmed group of lighting circuits.


## 1000 Level System

- Includes all the features of the 500 level system, Plus:
- Incorporates a flexible time scheduler that eliminates the need for external time clocks. Includes many control features not found in traditional, mechanical time clocks or energy management systems.
- Ideally suited for stand-alone systems in retail, office, institutional, and industrial facilities.


## 2000 Level System

- Includes all the features of the 1000 level system, Plus:
- Combines the control, input, and scheduling features of the NF1000 with the added benefit of embedded Ethernet connectivity.
- Peer-to-peer (P2P) control network connectivity allows different controllers to share input signals, schedules, and lighting zone states.
- Ethernet connectivity reduces network installation costs by eliminating the need for a dedicated lighting control network.


## 3000 Level System

- Combines control, input, and scheduling features of the 2000 level controller, Plus:
- Embedded web server for remote access without dedicated software
- Automated alarms notify users via email when pre-defined events occur (eg: trip breakers)


Controller

## 3000C Level System

- 3000C controller adds all the features of the 3000 level controller, plus the ability to integrate with C-Bus devices on the C-Bus network


## BacNet Capability

- The Building Automation and Control network (BACnet) communication protocol is being incorporated into the existing Powerlink G3 controller design. The BACnet protocol allows Powerlink panels to be easily integrated into a Building Automation System (BAS) employing this open communication standard without the need for communication bridges or gateways.


## Controller Models

The following Powerlink G3 controller models support 'native' BACnet communications, BACnet IP, and BACnet MS/TP on RS-485:

- NF2000G3 - Ethernet communications, shared remote inputs, network time synchronization
- NF3000G3 - Email upon alarm, onboard web pages for status/control/configuration
- NF3000G3C - C-Bus communications (ability to interface with a C-Bus lighting control network)
* NF3000G3C does not have RS485 capabilities (BACnet MS/TP)

| Catalog Number | Controller Type |
| :--- | :--- |
| NF500G3 | 500 Level Powerlink G3 Controller |
| NF1000G3 | 1000 Level Powerlink G3 Controller |
| NF1000G3N2 | 1000 Level Powerlink G3 Controller w/N2 Protocol |
| NF2000G3 | 2000 Level Powerlink G3 Controller |
| NF3000G3 | 3000 Level Powerlink G3 Controller |
| NF3000G3C | 3000 Level Powerlink G3 Controller w/C-Bus Capabilities |

## Controller Feature Comparison

| Feature | System Level |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 500 | 1000 | 2000 | 3000 |
| Input Terminals ${ }^{\text {a }}$ |  |  |  |  |
| 2-wire | 8 | 16 | 16 | 16 |
| 2-wire with status feedback v | 8 | 8 | 8 | 8 |
| 3-wire | 8 | 8 | 8 | 8 |
| Input Types |  |  |  |  |
| 2-wire normally open (NO) or normally closed (NC) | X | X | X | X |
| 2-wire NO or NC, with automatic blink notification | $X$ | X | X | X |
| 2-wire maintained toggle | $X$ | X | X | X |
| 2-wire momentary toggle | $X$ | X | X | X |
| 2-wire momentary ON or momentary OFF | $x$ | X | X | X |
| 3-wire momentary | $X$ | X | X | X |
| Input timers (1 sec. up to 18 hours) | X | X | X | X |
| Input synchronization | - | X | X | X |
| Sentry ${ }^{\text {® }}$ Switch support | $X$ | X | X | X |
| ON delay/OFF delay | X | X | X | X |
| Time Scheduler |  |  |  |  |
| Independent schedules | - | 16 | 16 | 16 |
| ON-OFF periods/schedule | - | 24 | 24 | 24 |
| 7-day 24-hour repeating schedule | - | X | X | X |
| 32 special event/holiday periods | - | X | X | X |
| Automatic daylight savings | - | X | X | X |
| Sunrise/sunset with offsets | - | X | X | X |
| Network time synchronization (requires TCP connection) | - | - | X | X |
| Network Variables |  |  |  |  |
| Communications inputs (network accessible) | 64 | 64 | 64 | 64 |
| Remote sources (per controller) | - | - | 32 | 32 |
| Maximum subscriptions | - | - | 256 | 256 |
| Zones |  |  |  |  |
| Maximum number | 64 | 64 | 64 | 64 |
| Maximum sources per zone | 1 | 2 | 4 | 4 |
| Configurable source logic (OR, AND, XOR, XNOR, NOR, NAND, LAST EVENT) | - | $\wedge$ | X | X |
| Maximum remotely operated circuit breakers (per subnet) | 168 | 168 | 168 | 168 |
| Blink notice (single, double, delay no blink) | X | X | X | X |
| ON-time | X | X | X | X |
| Networking |  |  |  |  |
| RS-232 port/RS-485 port | X | X | X | X |
| Ethernet (10BaseT port) | - | - | X | X |
| Protocols |  |  |  |  |
| BACnet | - | - | X | X |
| C-Bus | - | - | - | X $\dagger$ |
| Modbus ASCI/RTU | X | X | X | X |
| Modbus TCP | - | - | X | X |
| Johnson Controls N2 | - | X | - | - |
| DMX512 | - | X | X | X |
| Front Panel |  |  |  |  |
| LED display with cover | X | - | - | - |
| Backlit LCD display | - | X | X | X |
| Password or front panel disable | X | X | X | X |
| Memory |  |  |  |  |
| Non-volatile memory for programs and configuration | X | X | X | X |
| On-board capacitor to power clock chip during power outage | - | X | X | X |
| Flash memory for firmware upgrade | X | X | X | X |
| Viewing Options |  |  |  |  |
| Event Log | - | + | X | X |
| Strike Counter | X | X | X | X |
| Alarm viewing via Event Log | - | + | X | X |
| Alarm viewing via e-mail | - | - | - | X |
| Web-based setup, control and status monitoring | - | - | - | X |
| - Terminals accept 24-18 AWG conductors <br> $\star$ Order NF1000G3N2 controller for us <br> - Requires configuration software for setup. <br> v 7.5 mA maximum load per input term | $\star$ Order NF1000G3N2 controller for use with Johnson Controls. <br> v 7.5 mA maximum load per input terminal. | + 3000G3C controller <br> + Not available with NF1000G3N2 controllers. |  | nd/or las |

## Powerlink Remote Source Controller

The Powerlink Remote Source Controller (RSC) provides additional scheduling and dry-contact inputs via high speed Ethernet connectivity that links a wide variety of input devices to a 2000 or 3000 level Square D Powerlink system.

## Product Features

- High Speed Connectivity
- Ethernet communication eliminates bottlenecks typically associated with serial devices.
- Uses existing LAN infrastructure to reduce input wiring cost.
- Uses convenient radial feeds to independent input devices; this avoids pitfalls that are typically associated with daisy-chained network digital switches.


Remote Source Controller

## Powerful Control Capability

- Supports (16) 2-wire inputs, (8) 2-wire inputs with status output, or (8) 3-wire inputs.
- Fully configurable from LCD display/keypad or via LCS/PCS software.
- Specifically designed to operate in conjunction with 2000 and 3000 level controllers.
- Any RSC input can be set up to control any remotely operated circuit breaker connected to the system.
- Assignable input timers, input synchronization, and programmable behavior according to specified time period.
- Provides an additional (16) independent time schedules that can be configured to operate any circuit breaker or zone configured on the system.


## Technical Information

| Dimensions | 12 in. $\times 12 \mathrm{in} . \times 6 \mathrm{in} .(304.8 \mathrm{~mm} \times 304.8 \mathrm{~mm} \times 152.4 \mathrm{~mm})$ |
| :--- | :--- |
| Mounting | Wall mount |
| Ethernet Port | (1) 10BaseT port |
| Inputs | (16) dedicated 2-wire inputs or (8) 3-wire inputs |
| Outputs | (8) outputs (max of 60 mA total for all outputs combined) |
| Auxiliary Power | 24 Vdc (100 mA max) |
| Terminal Wire Range | \#24 - 18AWG |
| Input Voltage | $120 / 240 / 277$ Vac |
| Input Power Requirements | 20 VA max |
| Standards | UL Listed 916 Energy Management Equipment |


| Catalog Number | Description |
| :--- | :--- |
| RSC16G3120 | 120 V |
| RSC16G3240 | 240 V |
| RSC16G3277 | 277 V |

## Powerlink Remote Mount Controller

With the new Remote Mount Controller (RMC), Powerlink electronics can be mounted externally to the panelboard, freeing up valuable circuit spaces. RMCs are also useful in applications where access to panelboards is not permitted.

## Benefits

- Saves valuable circuit space: mounts on wall space next to any existing panelboard.
- Saves Time and Money: RMCs are easy to install for retrofit applications. They mount quickly and easily to reduce costly installation and downtime.
- Power and Flexibility: add Lighting Control to any new or existing panelboard application. RMCs are available with any POWERLINK G3 controller - it's the perfect fit.


Remote Mount Controller

| Catalog Number | Controller | Type Voltage |
| :--- | :--- | :--- |
| RMC500G3120 | 500 | 120 Vac |
| RMC500G3240 | 500 | 240 Vac |
| RMC500G3277 | 500 | 277 Vac |
| RMC1000G3120 | 1000 | 120 Vac |
| RMC1000G3240 | 1000 | 240 Vac |
| RMC1000G3277 | 1000 | 277 Vac |
| RMC1000N2G3120 | 1000 N2 | 120 Vac |
| RMC1000N2G3240 | 1000 N2 | 240 Vac |
| RMC1000N2G3277 | 1000 N2 | 277 Vac |
| RMC2000G3120 | 2000 | 120 Vac |
| RMC2000G3240 | 2000 | 240 Vac |
| RMC2000G3277 | 2000 | 277 Vac |
| RMC3000G3120 | 3000 | 120 Vac |
| RMC3000G3240 | 3000 | 240 Vac |
| RMC3000G3277 | 3000 | 277 Vac |

For Diagram see technical section page 92

## Product Features

- NEMA 1 enclosure with hinged door for access to controller and connections.
- Compact dimensions 12 in. x 12 in. x 6 in. ( $305 \mathrm{~mm} \times 305 \mathrm{~mm} \times$ 152 mm)
- Integral power supply for connection to 120 V , 240 V , and 277 V systems.
- Full range of Powerlink G3 controller options
- UL Listed 916 Energy Management Equipment
- Low power consumption - 20 VA max.


## Powerlink

## LCS Advanced and LCS Basic software

## Convenient Desktop Access

Unlock the potential of the Powerlink G3 lighting control system with LCS Basic and Advanced software from Schneider Electric. Schedule events, override lighting, and check the status of breaker with the click of a button. Easy-to-navigate software gives a whole new meaning to lighting control.

- Reduce costly down time by using a personal computer to access information and programming.
- Create schedules that easily apply to all controllers within a system, rather than programing each controller individually.
- Quickly view branch circuit status. (on, off, tripped, or non-responding)
- Examine system event logs, make configuration modifications, create or modify schedules, initiate overrides, and upgrade firmware.


## Multi-Device Support (LCS Advanced)

Imagine having the ability to configure, monitor, or control a hundred or more panels at one time. LCS makes it a reality. From a large office building, college campus, military base, and manufacturing facility, to a small retail site, users of LCS Advanced have the ability to configure the entire system from one location, greatly reducing commissioning, monitoring, and control time. Users can quickly view branch circuit status (on, off, tripped, or non-responding) for the entire system at one time. Examine system event logs, make configuration modifications, create or modify time schedules, initiate overrides, and upgrade firmware simultaneously.

## Firmware \& Software Updates

Easy to use firmware upgrade features are built directly into the LCS software. This not only allows the user to access the latest and greatest releases, but now LCS gives the user the ability to upgrade their software online as well.

## Templates

LCS implements a new approach to programming Powerlink G3 controllers by using global templates. Global templates allow the user to send "like" configuration data to multiple devices at one time. For instance, a single schedule can be setup one time and applied to multiple devices.

## Device Discovery (LCS Advanced)

LCS Advanced software allows discovery of controller devices, taking the guess work out of communication setup. Don't have the IP address of the controllers that are needed to program, monitor, or control? Device discovery allows users to easily setup a system by searching the network and detecting supported devices. Find devices that are connected to a network using a serial, TCP, or gateway connection. Discovered devices can be added to the current system with the click of a button.

## File Archiving

LCS is not tied to any proprietary databases. LCS uses standard file/folder archiving. Need to email a configuration to a facility manager? No problem, just attach the file, click send, and away it goes. No more importing and exporting from a database.


## Security

LCS allows different levels of access to a lighting control system. Time, date and user access is recorded in the system log, and user changes and access needs can be restricted.

## Reporting

LCS adds reporting functionality with customizable filtering and logging. Forgot when the last lamping project happened? With a click of a button a user can access breaker on-times and reset counters. Print and export reports to compile system trends.

## Compare

LCS brings a new capability of comparing configurations stored on a computer to the configuration in the Powerlink G3 controller and notifies the user of the differences.

## Restore

LCS can restore configurations to an earlier version, with the click of a button, a backup of the original configuration is readily available.

## Network File Sharing Repository

LCS allows users to save and retrieve configuration files on remote servers creating less confusion when multiple users are accessing and programming the system.

## Minimum Hardware Requirements

This software is designed to operate on a PC meeting the following requirements:

- Processor: 800 MHz , RAM: 512 MB
- Hard Drive: 500 MB available, Video 1024x768 minimum resolution
- Media: CD-ROM
- Inputs: Keyboard and Mouse


## Recommended Hardware Requirements

- Processor: 1.6 GHz
- RAM: 1 GB
- Hard Drive: 500 MB available, Video 1280x1024 minimum resolution
- Media: CD-ROM
- Inputs: Keyboard and Mouse


## Technical Information

| Features | LCS Basic | LCS Advanced |
| :--- | :---: | :---: |
| Support for NFG3 Devices | X | X |
| NFG3 Setup | X | X |
| NFG3 Status | X | X |
| NFG3 Control | X | X |
| Controller Notes | X | X |
| Firmware Downloads | X | X |
| Device Clear Memory | X | X |
| Device Soft Reset | X | X |
| Device Configuration Comparison | X | X |
| Schedule/Special Day Templates | X | X |
| Restore to Previous Configuration (limited to 1 back-up) | X |  |
| Reports | X | X |
| Controller Out-of-sync Status (online only) | X | X |
| Device Discovery | - | X |
| Security | X | X |
| On-line Health Checks | X | X |
| Group Devices by Logical Set (multiple devices) | X | X |
| User Defined Location for Storing Data | X |  |
| Support for Future Devices |  |  |
| Online Updates |  |  |

- LCS supports list of available autopoll periods for status screens of user's choice
- LCS allows a user to define as many accounts as needed based on 4 levels of ability (Software Supervisors, Supervisors, Power Users and Operators)

| Catalog Number | Description |
| :--- | :--- |
| LCSBASIC | LCS Basic (CD) |
| LCSBASICUP | Full upgrade from PCS to LCS Basic (CD) |
| LCSADVANCED | LCS Advanced (CD) |
| LCSADVANCEDUP | Full upgrade from PCS to LCS Advanced (CD) |

## Supported Operating Systems

Windows XP® Service Pack 2, Windows Vista ${ }^{\circledR}$, Windows $7^{\circledR}$.

## Required Software

The software requires the following Microsoft software applications to be installed: .NET Framework v2.0, Windows Installer v3.1 or later, Internet Explorer v6.0 or later.


The quick links and eye-catching icons of LCS software offers users a convenient and easy to use interface to the Powerlink G3 lighting control system.


With LCS, enjoy the comfort of tiered security access levels, ensuring that sensitive data and information is always well protected.

## Powerlink <br> Accessories

## Slave Address Selector

The Slave Address Selector is required for each slave panel connected to a subnet. The slave address selector establishes a unique system address for the panel that is both essential for system operation and useful when the system is accessed from a remote location. The slave address selector plugs directly onto control buses.

- Rotary operated switch labeled 0-7 for addressing panels
- Removable terminal block for connecting subnet cable
- Modular plug for connecting the Slave Address Selector to smart bus using the Slave Bus Connect Harness


## Slave Bus Connect Harness Assembly

The Slave Bus Connect Harness assemblies are required in slave panels furnished with two control buses. The harness contains modular plugs on each end.

## Column-width Controller Cable

A Column-width Controller Cable is required to connect the power supply to the controller when used in an NF Column-width Panelboard.


Remote Mounting Adapter
The Remote Mounting Adapter provides a means for mounting a Powerlink controller and power supply in a separate enclosure. This bracket is ideal for retrofit applications where all 42 circuit spaces in the panelboard are required for branch circuit breakers.


Controller Front Panel Serial Cable
The Controller Front Panel Serial Cable is used to make direct RS-232 connections from the controller to a PC or laptop computer.


## Custom Barrier Kit

The custom barrier kit provides a heavy-duty barrier for separating class II control circuits from power wiring.


## Modem Kit

This kit, which is designed specifically for Schneider Electric Powerlink G3 controllers, contains all the necessary components for use with the controller.

RS-485/RS-232 Converter Kit
The RS-485/RS-232 converter kit allows connection from the RS-485 port of the controller to the serial port of a personal computer.

## Subnet Cable

Four wire cable for connecting panels together in a subnet configuration.

$\qquad$


## Powerlink Device Power Supply

The Powerlink Device Power Supply is used to distribute power on a C-Bus network. Placed on the network, device power supplies will provide the current necessary for operating a variety of passive Schneider Electric C-Bus devices.

A Device Power Supply consists of a 8 M enclosure containing one or two Power Supplies (120 or 277 Vac ).

## Technical Information

| Nominal Line Voltage | Operates at 120 or $277 \mathrm{Vac}, \pm 10 \%$, with a frequency range from $50-60 \mathrm{~Hz}$ |
| :---: | :---: |
| Maximum Line Current | 9.9 mA for 120 V power supply 4.3 mA for 277 V power supply |
| Electrical Isolation | 3.75 kV RMS from C-Bus to the line |
| Current Output | 350 mA (single power supply unit) 700 mA (dual power supply unit) |
| Dimensions | 12.57 in . (L) $\times 8.88 \mathrm{in}$. (W) $\times 3.8 \mathrm{in}$. (D) [319 mm (L) $\times 226 \mathrm{~mm}$ (W) $\times 97 \mathrm{~mm}$ (D)] |
| Weight | One power supply: $8.84 \mathrm{lb}(4.01 \mathrm{~kg})$ Two power supplies: $9.28 \mathrm{lb}(4.21 \mathrm{~kg})$ |
| Operating Environment | Temp.: $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}: 95 \%$, noncondensing |
| Standards | UL: Listed 508A Industrial Control Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |



Powerlink Device Power Supply
*For Diagram see technical section page 89

Product Features

- Surface-mount NEMA

Type 1 enclosure with cover

- Unit and C-Bus LEDs indicate the status of the line voltage and the network
- Sources up to 700 mA (dual power supplies) to the C-Bus network
- 120 or 277 Vac models available


## Powerlink Device Router

The Powerlink Device Router allows the exchange of data between a Powerlink NF3000G3C controller and Schneider Electric C-Bus devices.

The bidirectional device router can receive data from the C-Bus input devices and send the data to the Powerlink panel/network. It can also receive data such as a contact closure from the Powerlink input and send that data to a C-Bus output/network.

The device router consists of a C-Bus 8M enclosure containing a PC Interface and a Power Supply ( 120 Vac or 277 Vac ). Communication between the device router and the NF3000G3C controller is made with the included 50 -foot serial cable.

Technical Information

| Nominal Line Voltage | Operates at 120 or $277 \mathrm{Vac}, \pm 10 \%$, with a frequency range from $50-60 \mathrm{~Hz}$ |
| :---: | :---: |
| Maximum Line Current | 9.9 mA for 120 V device router 4.3 mA for 277 V device router |
| Electrical Isolation | 3.75 kV RMS from C-Bus to the line |
| Current Output | 350 mA to the C-Bus network |
| Status Indicators | Unit and Unit/Comms: Line voltage, unit power, and data transmission |
|  | C-Bus: Power levels and presence of C-Bus clock |
| Serial Connection | (1) 9-pin RS-232 D-type serial connector; (2) RS-232 RJ-45 connectors |
| C-Bus Connection | (2) RJ-45 sockets for connection to the C-Bus network |
| Data Cable | 50 ft serial |
| Dimensions | $\begin{aligned} & 12.57 \mathrm{in} \text {. (L) } \times 8.88 \mathrm{in} .(W) \times 3.8 \mathrm{in.} \text {. (D) } \\ & {[319 \mathrm{~mm}(\mathrm{~L}) \times 226 \mathrm{~mm}(\mathrm{~W}) \times 97 \mathrm{~mm}(\mathrm{D})]} \end{aligned}$ |
| Weight | $9.1 \mathrm{lbs}(4.13 \mathrm{~kg}$ ) |
| Operating Environment | Temp.: $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}: 95 \%$, noncondensing |
| Standards | UL: Listed 508A Industrial Control Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 89

| Catalog Number | Description |
| :--- | :--- |
| NFDR120G3C | 120 V Powerlink Device Router |
| NFDR277G3C | 277 V Powerlink Device Router |



Powerlink Device Router

## Product Features

- Surface-mount NEMA 1 enclosure, with cover
- Unit, Unit/Comms, and C-Bus LEDs indicate the status of data transmission and power to the unit and the network
- System network clock for synchronizing communications data
- Network power source, supplying up to 350 mA
- 120 or 277 Vac models available


## Dimensional Drawings <br> NF Panelboard（indoor enclosure）

| Flush Mounting W＋ 1.50 （ 38 mm ） Surface Mounting W＋ 0.12 （ 3 mm ） |  | Max．Main Lug Ampere Rating | Max． <br> Number of Circuits | Enclosure Height（H） |  | Max．Main Lug Ampere Rating | Max． Number of Circuits | Enclosure Height（H） |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | In． |  | mm | In． |  |  | mm |
|  |  |  | 125 A | 12 | 26 | 660 | $\begin{aligned} & 125 \mathrm{~A} \\ & \text { (EDB, EGB, EJB) } \end{aligned}$ | 18 | 32 | 813 |
|  |  | 18 |  | 26 | 660 | 30 |  | 38 | 965 |
|  |  | 30＊ |  | 32 | 813 | 42 |  | 44 | 1118 |
|  |  | 250 A | 30 | 38 | 965 | $\begin{aligned} & 100 \mathrm{~A}(\mathrm{HDL} \\ & \text { HGL, HJL, HLL) } \end{aligned}$ | 12 | 38 | 965 |
|  |  |  | 42 | 44 | 1118 |  | 18 | 38 | 965 |
|  |  |  | 54 | 50 | 1270 |  | 30＊ | 44 | 1118 |
|  |  |  | 12 | 38 | 965 |  | 30 | 50 | 1270 |
|  |  | 100 A （FIL） | 18 | 38 | 965 | 400 A | 42 | 56 | 1422 |
|  |  |  | $30^{*}$ | 44 | 1118 |  | 54 | 62 | 1575 |
|  |  | 250 A | 30 | 50 | 1270 |  | 30 | 50 | 1270 |
|  | ー い ふ | (JDL, JGL, | 42 | 56 | 1422 | 600 A | 42 | 56 | 1422 |
|  |  | JJL，JLL） | 54 | 62 | 1575 |  | 54 | 62 | 1575 |
| $(146 \mathrm{~mm}$ ） |  |  | 30 | 50 | 1270 |  | 30 | 68 | 1727 |
|  |  | $800 A^{* *}$ | 42 | 56 | 1422 | 400/600 A | 42 | 74 | 1880 |
| pical Enclosure | Typical Enclosure |  | 54 | 62 | 1575 |  | 54 | 80 | 2032 |
| e View | Front View |  | 30 | 62 | 1575 |  |  |  |  |
|  |  | 400 A （LAL，LHL） | 42 | 68 | 1727 | － |  |  |  |
|  |  |  | 54 | 74 | 1880 |  |  |  |  |

Note：These dimensions are standard．Please consult factory
＊34W only＊＊800A Panelboards are 83／4 in．deep for special requirements．

## Column Width Panelboard



Typical Enclosure Front View


Typical Enclosure Side View

| Max．Number of Circuits | Max．Main Lug Ampere Rating | Enclosure Height（H） |  |
| :--- | :--- | :--- | :--- | :--- |
| Ready－to－Assemble（Also Available Factory Assembled） <br> Column Width－Main Lugs Only | mm |  |  |
| 30 | 125 A | 59 | 1499 |
| 42 | 225 A | 71 | 1803 |
| Column Width－Main Circuit Breaker |  |  |  |
| 30 | 125 A | 59 | 1499 |
| 42 | 225 A | 71 | 1803 |

## Powerlink <br> Device Power Supply/Device Router



Front view showing height and width


Side view showing depth


## Conduit knockouts for the 8M enclosure

| C-Bus 8 M Enclosure Knockouts |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Symbol | A | B | C | D | E |
| Conduit Size | $1 / 2$ | $3 / 4$ | 1 | $11 / 4$ | $11 / 2$ |

## Short Circuit Current Rating Table

This table lists the UL short-circuit current ratings for NF panelboards including ECB-G3 circuit breakers. The ratings apply to an integral main located in the same enclosure or a remote main located in a separate enclosure.

| NF Panelboard SCCR Table |  |  |  |
| :---: | :---: | :---: | :---: |
| Max. System Voltage | Max. Short Circuit Current Rating | Integral or Remote Main Circuit Breaker | Schneider Electric Branch Circuit Breaker Catalog Designation |
| 120 120/240 240 | 65,000 | EG, FH, FG, KH, LH, MH, MX, HG, JG | EDB, EDB-EPD |
|  |  | EG | ECB-G3 |
| $\begin{aligned} & 277 \\ & 480 \mathrm{Y} / 277 \end{aligned}$ | 100,000 | EJ, FC, FJ, KC, LC, LX, HJ, JJ | EDB, EDB-EPD, EGB |
|  |  | EJ, FC, KC, HJ, JJ | ECB-G3 |
|  | 125,000 | HL, JL | EDB, EDB-EPD, EGB, ECB-G3 |
|  |  | FI, KI, LI, LXI | EDB, EDB-EPD, EGB, EJB |
|  | 200,000 | FI, KI | ECB-G3 |
|  |  | Class J or T (600 V) 200 A max. fuses | EDB, EDB-EPD |
|  | 35,000 | EG, FG, HG, JG, KH, LH | ECB-G3 |
|  |  | EG, HG, JG | EDB, EDB-EPD, EGB |
|  | 65,000 | EJ, FC, FJ, KC, LC, LX, HJ, JJ | ECB-G3 |
|  |  | EJ, FC, KC, HJ, JJ | EDB, EDB-EPD, EGB, EJB |
|  | 100,000 | HL, JL | EDB, EDB-EPD, EGB, EJB |
|  |  | 400 A max. fuses | ECB-G3 |
|  | 200,000 | FI, KI, LI, LXI | EDB, EDB-EPD, EGB, EJB, ECB-G3 |
|  |  | FI, KI | - |
|  |  | 200 A max. fuses | - |

RMS Symmetrical Amperes

## Wiring Diagrams

This section contains wiring diagrams for the Schneider Electric Powerlink G3 systems.

Typical Low Voltage Input Connections


Various Low Voltage Switch Types


## Typical Switch Types Wired in Parallel

## Typical Photo Controller Wiring Diagram



## System Architecture

Three levels of communications are provided that can be easily tailored to individual application requirements.

## Subnet Communications

- Each Schneider Electric Powerlink G3 Controller can directly operate up to eight control buses.
- Controller signals the control buses to switch the associated branch circuits and polls each Schneider Electric Powerlink G3 Circuit Breaker to determine its actual status.
- Communications between the controller and the control buses are made with a 4-wire, Class 1 communications cable (Belden 27326 or equivalent).
- Slave panels (those containing control buses and remotely operated circuit breakers, but no controller) may be mounted up to 400 feet away from the master panel that contains the controller.


Subnet communications allow one controller to operate up to 168 remotely operated branch circuits.

## Automation Network

- Each controller provides both RS-485 and RS-232 serial ports. Provides access up to 247 controllers using an RS-485 multi-drop configuration.
- An automation level network can also be used to communicate with other building systems such as energy management systems and card access controllers. The automation network uses widely accepted and supported industrial-proven protocols used by many building automation manufacturers and systems integrators
" Modbus ASCII/RTU open protocol in all Schneider Electric Powerlink G3 Controllers
" DMX512 protocol in automation level network for theatrical lighting applications in 1000, 2000, and 3000 level controllers
" Optional JCI-N2 protocol for 1000 level controllers
» Optional C-Bus Network capability with NF3000G3C controller and device router
" BACnet MS/TP open protocol in 2000 and 3000 level controllers


Automation networks provide remote access to the lighting control system over an RS-485 network. An RS-485 network consists of low cost, 2-wire, Class 2 communications cable, Belden 9841 or equivalent.

## Ethernet Connectivity

Schneider Electric Powerlink G3 2000 and 3000 level controllers have integrated onboard Ethernet capability. In addition to providing high-speed Ethernet access, these controllers allow fast peer-to-peer (P2P) connectivity between panels. With 2000 and 3000 level systems, master panels can share inputs, schedules, and zone status.

- BACnet IP open protocol in 2000 and 3000 level controllers
- Modbus TCP/IP open protocol in 2000 and 3000 level controllers



## Powerlink

Remote Mount Controller

4-wire, 18 AWG, Class 1 cable, subnet cable (general cable 236100, Belden Cable 27326 or equivalent) Controller


## C-Bus Network

Below is a typical one-line diagram for creating a local area network using the C-Bus Network capability of level 3000G3C controllers. All cables shown below are CAT-5.


## C-Bus Lighting Control



## C-Bus Lighting Control

The availability of low-cost, powerful microprocessors for building control and management systems has created unprecedented customer expectations for increased control, connectivity and integration of electrical and low-voltage systems.

## - Lower installation cost

With its unique distributed control system, you can place relays and dimmers in various locations and connect them directly to the network - eliminating the need to run cable back to a separate enclosure near centrally located processors.

## - C-Bus keypads

These aesthetically pleasing faceplates lend a sophisticated look to virtually any space. They're as elegant as they are well-engineered.

## - Simple cabling/any topology

Since the C-Bus system uses standard Cat-5 cabling, using any topology, there's no special cable to order or keep in supply. So it's much easier to address last-minute change orders or to complete a job without wondering if you have the right materials on hand.

- Fully-scalable solution

Whether you're creating a lighting control system for a single room or a whole facility, Schnieder Electric lighting control offers scalable systems to fit your exact needs. Our C-Bus solutions are designed around the size and requirements of your application. All this with a common platform and easy installation practices. Talk about flexibility.

## - C-Bus touch screens

Our unified wall-mounted panels allow you to control lighting systems and accessories with the touch of a finger. Designed with versatility in mind, these sleek touch screens are easy to install, customize and use. They're compact yet powerful. Simple to operate yet highly flexible. A desktop model is available when wall space is limited or for added convenience.

## Saturn Keypads

The C-Bus Saturn ${ }^{\text {T"W }}$ Keypads offer localized finger-tip control of lighting and electrical services. These elegant keypads incorporate a unique glass cover plate that is easy to install, customize, and use.

By virtue of the variety of button configurations available, one compact Saturn keypad can take the place of many single operation switches, ON/OFF toggles, dimmers, and timers.

Available in a two-, four-, or six-button keypad, Saturn's modern style is complemented by orange and blue LEDs that can instantly show the status of controlled devices.

## Technical Information

| Voltage Requirements | 15-36 Vdc @ 22 mA required for normal operation, drawn from the C-Bus network |
| :---: | :---: |
| Number of Units on a Network | Determined with the C-Bus Calculator, a software utility used to evaluate the total network current load |
| Electrical Isolation | 3.75 kV RMS from C-Bus to power (provided externally) |
| Control Functions | Load switching, dimming, timing, scene control |
| Status Indicators | Two-color (orange and blue) user-configurable LEDs |
| Locator Option | User-configurable, adjustable LED to help locate the unit in darkness, has "ignore first button press" option |
| Scene Control | Up to four scenes per keypad, ten addresses per scene |
| Timers | $1 \mathrm{sec}-18 \mathrm{hr}, 1 \mathrm{sec}$ intervals |
| Response Time | 200 m sec or less |
| C-Bus Connection | One terminal block to accommodate 24-16 AWG (0.2-1.31 mm²), CAT 5 UTP cable required |
| Dimensions | 4.57 in . (L) $\times 2.95 \mathrm{in}$. (W) $\times 1.1 \mathrm{in}$. (D) [116 mm (L) $\times 75 \mathrm{~mm}(\mathrm{~W}) \times 28 \mathrm{~mm}$ (D)] |
| Mounting | Plaster mud ring (Raco 8771 or equal) w/ minimum internal width 2.05 in . ( 52 mm ) (not provided) Single gang box (Carlon A58381DCAR or equal) w/minimum internal width 2.05 in . ( 52 mm ) (not provided) |
| Weight | 4.66 oz (132 g) |
| Operating Environment | Temp.: $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}$ : $95 \%$, noncondensing |
| Standards | UL: Listed 916 Energy Management, CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device, EN61000-4-2 Immunity to ESD |
| Color Options | Cream, black, mocha, white, pure white and stainless steel |

*For Diagram see technical section page 145

Order numbers for the Saturn keypad assemblies indicate the number of buttons desired on the keypad ( x ) and the color of the cover plate (y). Color Codes: White (WE), Black (BK), Mocha (BR), Cream (CM), Pure White (PW) and Stainless Steel (SS).

For example, SLC5086NLBK represents an order for a Saturn keypad with six buttons and a black cover plate. The order number for a two-button keypad in mocha would be SLC5082NLBR.

| Catalog Number | Description |
| :--- | :--- |
| SLC508(X)NL(Y) | Saturn Keypad Assemblies, 2, 4 or 6 buttons |
| SLC5080LC8 | Pre-labeled button caps (1 ea. of 66 frequently used labels such as: Meeting, Scene 1, etc.) |
| SLC508(X)NLF(Y) | Stand-alone faceplates |

[^2]

Saturn Style 6 Button Keypad

## Product Features

- Button configurations include multi-point switching and dimming, master ON/OFF switching, and scene settings
- Scene control includes up to ten group addresses per scene and four scenes per keypad
- Independent timers available for each button
- Dual-color LED windows on each button can glow in cool blue, orange, or combinations of both, indicating when a controlled device is ON or OFF
- Auto "fallback" can dim button LEDs at a set time after the last button press
- Locator LED can illuminate the keypad, helping a user find it in dim light


## Functional

Aesthetics

- Distinctively designed transparent impactresistant glass cover plate with silver buttons that can glow blue or orange
- Clean-lined keypads are wall mounted without external fittings
- Low-profile keypad extends only 0.5 in . out from the wall
- Colors are easily modified to suit personal taste or the décor
- Optional button covers with labels, enabling quick identification of lighting scenes or controlled devices


## Saturn Dynamic Labeling Technology Keypads

C-Bus Dynamic Labeling Technology ${ }^{\text {Tm }}$ (DLT) keypads combine programmable keypad buttons, and easily customized labels on a backlit LCD screen that eliminates the need for custom labels.

These keypads are designed to be easy to install, customize, and use. By virtue of the variety of button configurations available, one compact DLT keypad can take the place of many single operation switches, ON/OFF toggles, dimmers, and timers.

Cool blue LEDs light the five keypad buttons, complementing the keypad's sleek lines and instantly showing the status of controlled devices.

## Technical Information

| Voltage Requirements | 15-36 Vdc @ 22 mA required for normal operation, drawn from the C-Bus network |
| :---: | :---: |
| Number of Units on a Network | Use the C-Bus Calculator, a software utility, to determine the total network current load |
| Electrical Isolation | 3.75 kV RMS from C-Bus to power (provided externally) |
| Control Functions | Load switching, dimming, timing, scene control |
| Status Indicators | Blue, one dimmable LED per button |
| Backlight | White, dimmable, user configurable |
| Locator Option | User-configurable, adjustable blue LED for locating the unit in darkness, with "ignore first button press" option |
| Scene Control | 4 scenes per keypad, 10 addresses per scene |
| Timers | $1 \mathrm{sec}-18 \mathrm{hr}, 1$ second intervals |
| Screen | $64 \times 128$ pixels LCD |
| Response Time | 200 m sec or less |
| C-Bus Connection | One terminal block to accommodate 24-16 AWG (0.2-1.31 mm²), CAT 5 UTP cable required |
| Dimensions | 4.57 in . (L) $\times 2.95 \mathrm{in}$. (W) $\times 1.20 \mathrm{in}$. (D) [116 mm (L) $\times 76 \mathrm{~mm}(\mathrm{~W}) \times 32 \mathrm{~mm}$ (D)] |
| Mounting | Standard plaster (mud) ring or wall box (not provided), minimum internal width 2.05 in . ( 52 mm ) Centers: 3.31 in . ( 84 mm ) |
| Weight | 3.35 oz (95 g) |
| Operating Environment | Temp.: $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}$ : $95 \%$, noncondensing |
| Standards | UL: Listed 916 Energy Management Equipment CSA 22.2 Spec 205 Signal FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |
| Color Plate Colors | Saturn Style: Pure White, White, Cream, Black, Mocha, Stainless Steel |

**For Diagram see technical section page 145

Order numbers for the Saturn DLT keypads include the stock number (SLC5085DL) and the code for the color of the cover plate: Black (BK), Mocha (BR), White (WE) and Cream (CM). For example, SLC5085DLBR represents a complete catalog number for a Saturn DLT keypad with a mocha cover plate.

| Catalog Number | Description |
| :--- | :--- |
| SLC5085DL( ) | Saturn Keypad with DLT in White (WE), Cream (CM), Black (BK), Mocha (BR), <br> Pure White (PW) and Stainless Steel (SS) |



Saturn Style DLT Keypad

## Product Features

- Button configurations include multi-point switching and dimming, master ON/OFF switching, and scene settings
- Keypads have five physical buttons-four control buttons and one scroll/ page button-combined with two screens of labels, for a total of eight control buttons and two scroll/ page buttons
- Scene control includes ten group addresses per scene, four scenes per keypad
- Independent timers available for each button
- Button LEDs can be used as locator lights in the dark
- Time clock can be displayed at the bottom of the screen
- Displays up to 8 languages from a set of more than 65


## Functional Aesthetics

- $64 \times 128$ pixel LCD screen with a white backlight
- Editable LCD labels, available for each button or control group, can display text, symbols, and graphics
- Dynamic graphic displays, such as bar graphs, can be enabled or disabled
- Bitmaps can be downloaded for each group address or scene


## Neo Decorator Keypads

Schneider Electric C-Bus Neo Decorator Style Keypads offer localized finger-tip control of lighting and electrical services. These elegant keypads incorporate a unique cover plate (ordered separately) that is easy to install, customize, and use.

By virtue of the variety of button configurations available, one compact Decorator style keypad can take the place of many single operation switches, ON/OFF toggles, dimmers, and timers.

Available in a one-, two-, three- or four- button keypad, these modern style keypads are complemented by blue LEDs that can instantly show the status of controlled devices.

## Technical Information

| Voltage Requirements | 15-36 Vdc @ 22 mA required for normal operation, drawn from the C-Bus network |
| :---: | :---: |
| Number of Units on a Network | Determined with the C-Bus Calculator, a software utility used to evaluate the total network current load |
| Electrical Isolation | 3.75 kV RMS from C-Bus to power (provided externally) |
| Control Functions | Load switching, dimming, timing, scene control |
| Locator Option | User-configurable, adjustable LED to help locate the unit in darkness, has "ignore first button press" option |
| Scene Control | Up to 4 scenes per keypad, 10 addresses per scene |
| Timers | $1 \mathrm{sec}-18 \mathrm{hr}, 1$ second intervals |
| Response Time | 200 m sec or less |
| C-Bus Connection | One terminal block to accommodate 24-16 AWG (0.2-1.31 mm²), CAT 5 UTP cable required |
| Dimensions | 4.57 in . (L) $\times 3.0 \mathrm{in}$. (W) $\times .91 \mathrm{in}$. (D) [116 mm (L) $\times 76 \mathrm{~mm}$ (W) $\times 23 \mathrm{~mm}$ (D)] |
| Weight | 2.9 oz (82 g) |
| Operating Environment | Temp.: $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}: 95 \%$, noncondensing |
| Standards | UL: Listed 916 Energy Management Equipment CSA 22.2 Spec 205 Signal FCC: Part 15.101, Class B Digital Device |
| Color Options | Neo Style: Slate, White, Cream, Brown, Black, Soft Grey, Desert Sand |

**For Diagram see technical section page 145

Order numbers for the Neo Decorator keypads include the stock number, the number of buttons (1 thru 4) and the code for the button color: Black (BK), Brown (BR), White (WE), Cream (CM), Slate (GB), Soft Grey (SG) Desert Sand (DS), Ivory (VY) and Light Almond (LA).

For example, SLC505(4)NLM(WE) represents a Neo Decorator style keypad with 4 buttons in white.

| Catalog Number | Description |
| :--- | :--- |
| SLC505(X)NLM(Y)* | Neo Decorator Style Keypad |



Neo 4 Button Decorator Style Keypad

## Multi-Functional

 Capabilities- Button configurations include multi-point switching and dimming, master ON/OFF switching, and scene settings
- Scene control includes up to ten group addresses per scene and four scenes per keypad
- Independent timers available for each button
- LED windows on each button can glow in cool blue or orange, indicating when a controlled device is ON or OFF
- Auto "fallback" can dim button LEDs at a set time after the last button press
- Locator LED can illuminate the keypad, helping a user find it in dim light
- Has infrared remote capabilities with Schneider Electric C-Bus remotes
*when ordering: "x" equals button configuration 1, 2, 3, or 4 and " $y$ " equals color selection $B K, B R, W E, C M, G B, S G, D S, V Y$, or $L A$


## Color Spectrum Color Touch Screens

The C-Bus Spectrum Color Touch Screens by Schneider Electric are a unified wallmounted or desktop panel for controlling lighting systems and accessories with the touch of a finger.

Designed with versatility in mind, these sleek touch screens are easy to install, customize, and use. Compact yet powerful, the touch screen has numerous configurations available, making it an attractive alternative to multiple single operation switches, ON/OFF toggles, dimmers, and timers which can clutter up even the nicest wall. The C-Bus Spectrum Color Touch Screens are available in the Saturn and Neo style cover plates with a wide assortment of colors to choose from.

## Technical Information

| AC input impedance | 13 K ohms @ 1 kHz |
| :--- | :--- |
| Display type | $4.7 \mathrm{in} .(119 \mathrm{~mm})$ active black and white or color LCD |
| Display resolution | $320 \times 240$ pixels |
| Display luminance | $120 \mathrm{~cd} / \mathrm{m}^{2}$ |
| Viewing angle | Left, right: $45^{\circ} ;$ up: $50^{\circ}$; down: $30^{\circ}$ |
| Backlight type | White LED |
| Touch surface durability | 1 million presses (typical) |
| Maximum number of controlled loads | 255 group addresses on each of the 10 applications |
| Third party interface | RS-232 port |
| Programming port | USB type B (front of unit, behind cover plate) |
| C-Bus supply voltage (required for <br> normal operation. Does not provide <br> current to the C-Bus network.) | Spectrum: 15 to 36 Vdc @ 72 mA |
| Network clock | Software selectable |
| Network burden | Software selectable |
| Processor | ARM7TDMI, 40 MHz |
| Warm up time | $<10$ seconds |
| Operating temperature | $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right)$ |
| Operating humidity | $10 \%$ to $95 \% \mathrm{RH}$ |

*For Diagram see technical section page 146

| Spectrum Touch Screen-Wall <br> Mounted Catalog Number | Description |
| :--- | :--- |
| SLC5000CTCL2xx | Spectrum w/non-stylized plastic Cover Plate |
| SLC5050CTCL2xx | Spectrum w/Neo Style Cover Plate |
| SLC5080CTCL2xx | Spectrum w/Saturn Style Cover Plate |
| SLCBS5000CTCL2 | Spectrum w/Stainless Steel Cover Plate |
| SLCBB5000CTCL2 | Spectrum w/Brass Cover Plate |

Note: $x x=$ color code (GB - Brushed Aluminum and Slate*, WE - White, BK - Black, CM - Cream, BR - Mocha**, PW - Pure White**) *Neo only **Saturn only

| Spectrum Desktop Model <br> Catalog Number | Description |
| :--- | :--- |
| SLC5000CTCD2xx | Spectrum Desktop Touch Screen |

Note: $x x=$ color code/WE-White, BK-Black

| Accessories | Description |
| :--- | :--- |
| SLC5000CT2WB | Wall box for Spectrum Touch Screen |
| SLC5080CT2Fxx | Replacement Cover Plate, Saturn style |
| SLC5000CT2FSS | Replacement Cover Plate, Stainless Steel |
| SLC5050CT2Fxx | Replacement Cover Plate, Neo style |

Note: $x x=$ color code (GB - Brushed Aluminum and Slate*, WE - White, BK - Black, CM - Cream, BR - Mocha**, PW - Pure White**) *Neo only **Saturn only

## Color Touch Screen

The C-Bus Color Touch Screen is a unified panel for controlling lighting systems and accessories with the touch of a finger.

The touch screen's sophisticated appearance reflects the underlying craftsmanship of its design. Among its many capabilities, this powerful PC-based system supports graphical depiction of area plans, monitoring of various C-Bus devices, scheduling of lighting and other loads, finger-tip control of preset scenes, and operation from the touch screen or by remote controller.


Color Touch Screen

## Technical Information

| Screen |  |
| :---: | :---: |
| Type | LCD active matrix |
| Size | 6.4 in. (diagonal) |
| Resolution | VGA, $640 \times 480$ pixels |
| Pixel Pitch | $0.01 \mathrm{in} .(\mathrm{H}) \times 0.01 \mathrm{in} .(\mathrm{V})$ [0.204 mm (H) $\times 0.202 \mathrm{~mm}(\mathrm{~V})$ ] |
| Viewing Area | $5.14 \mathrm{in} .(\mathrm{H}) \times 3.82 \mathrm{in} .(\mathrm{V})$ [130.6 mm (H) $\times 97.0 \mathrm{~mm}(\mathrm{~V})$ ] |
| Touch Overlay Type | Resistive membrane |
| Viewing Angle | Typical horizontal: $70^{\circ}$ left and right/Typical vertical: $40^{\circ}$ up, $70^{\circ}$ down |
| Luminance | $300 \mathrm{~cd} / \mathrm{m}^{2}$ |
| Backlight | Cold cathode with light sensor for automatic backlight level control |
| Memory | 256 MB compact Flash memory, pre-programmed with panel firmware, Backup: Lithium battery retains current date and time for 5 years. |
| Components and Connectors |  |
| Front | Ethernet 10/100/RJ-45 terminal (hidden), Speaker (hidden), Infrared receiver, RS-232 via DB 9 terminal |
| Rear | C-Bus RJ-45 terminals (2) • Ethernet 10/100/RJ-45 terminal Composite video output via RCA terminal (75 ohm) • RS-232 via DB 9 terminal USB type A terminals (2) for future software support Remote infrared (IR) terminal (hardwired via a 3.5 mm mini-jack) External speaker/headphone terminal ( 3.5 mm mini-jack) |
| Overall Dimensions | 9.8 in. (W) $\times 6.9 \mathrm{in}$. (H) $\times 2.9 \mathrm{in}$. (D) [246 mm (W) $\times 173 \mathrm{~mm}(\mathrm{H}) \times 72.5 \mathrm{~mm}$ (D)] |
| Weight | $3.02 \mathrm{lbs} .(1375 \mathrm{~g})$ (excluding cover plate) |
| Operating Environment | Temp.: $50^{\circ} \mathrm{F}$ to $86^{\circ} \mathrm{F}\left(10^{\circ} \mathrm{C}\right.$ to $\left.30^{\circ} \mathrm{C}\right) / \mathrm{RH}$ : $95 \%$ noncondensing |
| Standards | UL Listed 916 Energy Management Equipment CSA 22.2 Spec. 205 Signal Equipment, FCC: Part 15.101, Class B Digital Device • EN61000-4-2 Immunity to ESD |
| Required Accessories: Power Supply (Sold Separately) |  |
| Power Supply | $6.9 \mathrm{in} .(\mathrm{L}) \times 3.1 \mathrm{in} .(\mathrm{W}) \times 1.8 \mathrm{in} .(\mathrm{H})$ |
| Dimensions | $175 \mathrm{~mm}(\mathrm{~L}) \times 80 \mathrm{~mm}(\mathrm{~W}) \times 45 \mathrm{~mm}(\mathrm{H}) \quad \square \quad$ Power supply for color touch |
| Adaptor Box | $5.2 \mathrm{in} .(\mathrm{L}) \times 2 \mathrm{in} .(W) \times .4 \mathrm{in} .(\mathrm{H}) \quad-\quad$ screen (sold separately) |
| Dimensions | $113 \mathrm{~mm}(\mathrm{~L}) \times 50 \mathrm{~mm}(\mathrm{~W}) \times 11 \mathrm{~mm}(\mathrm{H})$ |
| Weight | $4.2 \mathrm{lb}(1.925 \mathrm{~kg})$ |
| Standards | UL: Listed 60950 Information Technology Equipment - Safety: General Requirements • CSA 22.2 Spec. 205 Signal Equipment FCC: Part 15.101, Class B Digital Device • EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 146

Order numbers for the Neo and Saturn style touch screens include the stock number, and the code for the cover color. Saturn Colors: Black (BK), Mocha (BR), White (WE), Cream (CM) and Pure White (PW). Neo Colors: Brushed Aluminum and Slate (GB), White (WE) and Black (BK). For example, SLC5050CTC(WE) represents a Neo Style Touch Screen in white.

| Catalog Number | Description | Accessories | Description |
| :---: | :---: | :---: | :---: |
| SLC5080CTC2() | Saturn Style Touch Screen | SLC5000CTCPS* | Color Touch Screen Power Supply |
|  |  | SLC5000CTCWB** | Color Touch Screen Wall Box |
|  |  | SLC5000CTCNA** | Color Touch Screen Wall Nail Bracket |
|  |  | SLC5000CTCRM** | Color Touch Screen Wall Plaster Board Bracket |

* Required for every color touch screen installation.
** Color touch screen must be mounted with one of these options


## Product Features

- Ability to configure controls including scenes, schedules, state changes and graphic animation
- Ability to customize buttons, sliders, photos and drawings
- Audio tools support use of custom WAV files for audible feedback and voice prompts
- Internal amplified speaker has volume control and external speaker terminal
- Built-in RJ-45 Ethernet and C-Bus network, RS232, and USB terminals
- Infrared receiver for remote control and infrared input for accessories
- Controls can be password protected at multiple levels
- Astronomical and real time clocks


## Functional <br> Aesthetics

- Touch sensitive 6.4 inch ( $640 \times 480$ ) color LCD panel
- Light sensor for automatic backlight control
- Flush wall-mount design
- Cover plates available in Neo and Saturn styles
- Five color schemes available, complementing any décor


## Wiser

 Home ControllerThe Wiser ${ }^{\text {rw }}$ Home Controller is the missing piece of the smart home puzzle, enhancing the capabilities and connectivity of the C-Bus network. Its easy-to-use graphical user interface (GUI) provides access to the home C-Bus network and all of your electrical, multimedia, and telecommunication needs. This same GUI can be installed across multiple control devices, such as mobile phones, TVs with Microsoft ${ }^{\oplus}$ Windows Media ${ }^{\circledR}$ Center, personal computers, and web tablets, in addition to the C-Bus range of touch screens and keypads. No matter where you are, the Wiser Home Controller allows you to monitor and control your home environment locally or remotely over the Internet.


Wiser Home Controller

## Technical Information

| Power Source | - Home Controller's router: AC power pack <br> - Inline C-Bus Network Interface: <br> » AC power pack through busbar for Ethernet <br> » C-Bus side is powered by the C-Bus network |
| :---: | :---: |
| Mounting location | - Wall mounted with two keyhole openings <br> - Must be installed indoors |
| Minimum distance to operator | $7.9 \mathrm{in} .(20 \mathrm{~cm})$ from nearest antenna |
| Mounting screw spacing | 3.8 in . (95.5 mm) between centres |
| Operating ambient temperature | $32^{\circ} \mathrm{F}-113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}-45^{\circ} \mathrm{C}\right)$ |
| Operating relative humidity | 10\% to 90\%, non-condensing |
| Types of electrical connection (Suitable for copper or aluminium conductors) | - Disconnectable DC power supply jack on the busbar $-0.04 \times 0.12 \mathrm{in}$. ( $1 \times 3 \mathrm{~mm}$ ) center positive <br> - Disconnectable WAN connector on busbar $-1 \times$ RJ-45 plug <br> - Disconnectable LAN connectors on router $-3 \times$ RJ-45 plug <br> - Fixed aux (C-Bus) terminal for $2 \times 2.5 \mathrm{~mm}$; for twisted pairs; with strain relief post |
| Ethernet WAN protocol | TCP/IP |
| Recommended Internet browsers | Microsoft ${ }^{\circledR}$ Internet Explorer ${ }^{\circledR}$ or Mozilla ${ }^{\circledR}$ Firefox ${ }^{\circledR}$ |

*For Diagram see technical section page 147

| Catalog Number | Description |
| :--- | :--- |
| WHC5918 | Wiser Home Controller |

## Product Features

- Ethernet and Wi-Fi based controller for your C-Bus system
- Built-in Ethernet router
- Built-in Wi-Fi access point
- Support for lighting, airconditioning, multi-room audio, alarms, cameras, and other equipment
- Easy to understand wizard-based user interface graphics
- Built-in scene, scheduling, and logic programming modules
- Allows remote reprogramming from outside the home/building by installers
- Common, intuitive interface for all devices
- Operates using C-Bus TAG descriptions, Locations, and Function Groups
- Configured and commissioned using C-Bus Toolkit and PICED software
- Control via your mobile phone or other webenabled devices
- Displays up-to-the-minute news, weather, and more


## C-Bus

## Ethernet Network Interface

The Schneider Electric C-Bus Ethernet Network Interface unit is a C-Bus system support device designed to provide an isolated communications path between an Ethernet Network and a C-Bus Network.

The following functions can be achieved through this interface: programming C-Bus Units, issuing commands to a C-Bus Network including scheduled activities as well as monitoring and data logging of activities on a C-Bus Network.

The C-Bus Ethernet Network Interface may also generate the system clock for communications data synchronization on the C-Bus Network and provide a software selectable Network Burden.


Ethernet Network Interface

## Technical Information

| C-Bus Voltage Requirements | $15-36 \mathrm{Vdc}$ |
| :--- | :--- |
| Supply Current | 12 Vac or dc $@ 300 \mathrm{~mA}$ |
| C-Bus Input Voltage | 15 to 36 Vdc |
| External Power Supply <br> (provided) | $12 \mathrm{Vdc} @ 500 \mathrm{~mA}$ |
| Electrical Isolation | 500 V RMS continuous C-Bus/RS-232 |
| Status Indicators | Ethernet LED/Comms LED |
| C-Bus System Clock | Software selectable |
| C-Bus Network Burden | Software selectable |
| Ethernet Connection | RJ-45 socket for connection to Ethernet |
| Dimensions | 3.35 in. (H) $\times 2.83$ in. (W) $\times 2.56$ in. (D) [85 mm (H) $\times 72 \mathrm{~mm}(\mathrm{~W}) \times 65 \mathrm{~mm}(\mathrm{D})]$ |
| Weight | 4.59 oz (130 g) |
| Operating | Temp.: $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right)$ |
| Environment | RH: $95 \%$, noncondensing |
| Storage Environment | Temp.: $14^{\circ} \mathrm{F}$ to $140^{\circ} \mathrm{F}\left(-10^{\circ} \mathrm{C}\right.$ to $\left.60^{\circ} \mathrm{C}\right), \mathrm{RH}: 95 \%$, noncondensing |
| Standards | UL: Listed 916 Energy Management Equipment |
| CSA 22.2 Spec 205 Signal Equipment |  |

Product Features

- Programming C-Bus Units
- Issuing commands to a C-Bus Network, including scheduled activities
- Monitoring and Data Logging of activities on a C-Bus Network
- Software selectable C-Bus System Clock
*For Diagram see technical section page 147

| Catalog Number | Description |
| :--- | :--- |
| SLC5500CN2 | Ethernet Network Interface |

## C-Bus PC Interface/PC Interface USB

The C-Bus PC Interface (PCI) expands options for configuring, controlling, and monitoring C-Bus networks by providing an interface between the network and a personal computer $(\mathrm{PC})$ or other external device.

The C-Bus PCI module easily mounts to a DIN rail and connects to external devices through its built-in connector ports. Power to the unit is provided through the C-Bus network.

## PC Interface Technical Information

| Voltage Requirements | 15-36 Vdc @ 32 mA required for normal operation, drawn from the C-Bus network |
| :---: | :---: |
| Electrical Isolation | 500 V RMS continuous C-Bus/RS-232 |
| Status | Unit/Comms: Unit power and data transmission |
| Indicators | C-Bus: Power levels and presence of C-Bus clock |
| Serial | (1) 9-pin RS-232 D-type serial connector |
| Port | (2) RS-232 RJ-45 connectors |
| Cable | 6.6 ft. (2 m), with DB9 connectors |
| C-Bus Connection | (2) RJ-45 sockets for connection to a C-Bus network |
| Dimensions | 2.84 in . (H) $\times 3.35 \mathrm{in}$. (W) $\times 2.60 \mathrm{in}$. (D) [72 mm (H) $\times 85 \mathrm{~mm}(\mathrm{~W}) \times 66 \mathrm{~mm}$ (D)] |
| Mounting | DIN rail, 4M wide |
| Serial Termination | Temp.: $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right)$, RH: $95 \%$, noncondensing |
| Storage Environment | Temp.: $14^{\circ} \mathrm{F}$ to $140^{\circ} \mathrm{F}\left(-10^{\circ} \mathrm{C}\right.$ to $\left.60^{\circ} \mathrm{C}\right)$, RH: $95 \%$, noncondensing |
| Standards | UL: Listed 916 Energy Management Equipment, CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device, EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 147

| Catalog Number | Description |
| :--- | :--- |
| SLC5500PC | PC Interface |

## PC Interface USB Technical Information

| C-bus input voltage | $15-36 \mathrm{Vdc}$ |
| :--- | :--- |
| Current drawn | 22 mA |
| Electrical isolation rating | 500 Vrms continuous C-Bus/RS232 |
| Communications | USB Type A to B |
| Operating temperature | $32^{\circ} \mathrm{F}-113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}-45^{\circ} \mathrm{C}\right)$ |
| Operating humidity range | $95 \% \mathrm{RH}$; non-condensing |
| Terminals | $\mathrm{C}-\mathrm{Bus}, \mathrm{RJ45}$ connectors (2), USB to PC |
| Dimensions | $2.84 \mathrm{in}. \mathrm{(L)} \times 3.35 \mathrm{in}$. (W) $\times 2.60 \mathrm{in} .(\mathrm{D})[72 \mathrm{~mm}(\mathrm{~L}) \times 85 \mathrm{~mm}(\mathrm{~W}) \times 66 \mathrm{~mm}(\mathrm{D})]$ |
| Weight | $0.23 \mathrm{lbs}(104 \mathrm{~g})$ |

## Product Features

- Unit/Comms LED shows the status of the unit's power and of any data transmissions
- C-Bus LED shows the status of the network at the unit, including the level of network power and the presence of the C-Bus clock
- System network clock for synchronizing communications data
- PC Interface: Three RS232 serial connectors for connecting to a PC or to external devices: (1) 9-pin D-type serial connector (female) and (2) 8-pin RJ-45 connectors.
- USB Model: USB (B-Type) Connector
- Two C-Bus network connector ports: RJ-45 sockets
- Data cable for connecting PCl and personal computer, including DB9 connectors
*For Diagram see technical section page 148

| Catalog Number | Description |
| :--- | :--- |
| SLC5500PCU | PC Interface, USB Model |

## C-Bus

## Network Bridge

The C-Bus Network Bridge provides a communication channel between C-Bus units on separate networks, expanding the total number of units that can be configured, controlled, and monitored.


## Technical Information

| Voltage Requirements | 15-36 Vdc @ 18 mA required for normal operation, drawn from each connected C-Bus network |
| :---: | :---: |
| Electrical Isolation | 3.5 kV RMS for 1 min (between networks) |
| Status | Network A, Network B |
| Indicators | Power ON, Communications in progress <br> Power OFF, Not connected/insufficient power |
| Propagation Delay | 250 ms (delay for message transfer between two adjacent C-Bus Networks) |
| Interconnect | In parallel: 51 networks (50 network bridges) |
| Capacity | In series: 7 networks (6 network bridges) |
| C-Bus System Clock | Software selectable |
| C-Bus Network Burden | Software selectable |
| C-Bus Connection | (2) pair of RJ-45 sockets for connection to C-Bus networks |
| Dimensions | 2.84 in . (H) $\times 3.35 \mathrm{in}$. (W) $\times 2.60 \mathrm{in}$. (D) [72 mm (H) $\times 85 \mathrm{~mm}(\mathrm{~W}) \times 66 \mathrm{~mm}$ (D)] |
| Weight | 3.35 oz (95 g) |
| Operating Environment | Temp.: $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}$ : $95 \%$, noncondensing |
| Standards | UL: Listed 916 Energy Management Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

Product Features

- Increases transmission distances by acting as a repeater station for data transmission
- Expands the total number of C-Bus devices that can operate on the system by isolating devices to individual networks [In parallel: 50 networks (50 network bridges) In series: 7 networks (6 network bridges)]
- Indicates each network's status level
- Stores operating status in non-volatile memory for recovery from a power outage
- Uses built-in connectors to connect to a C-Bus network
*For Diagram see technical section page 148

| Catalog Number | Description |
| :--- | :--- |
| SLC5500NB | Network Bridge |

## C-Bus

## Power Supply

The C-Bus Power Supply is specifically designed to operate with the C-Bus network as a power source for passive C-Bus devices.

The power supply mounts to a DIN rail and connects to the C-Bus network through built-in RJ-45 connectors.

These devices are UL listed as Class 2 power supplies and are suitable for parallel operation. Up to five power supplies can be connected to a single C-Bus network.


Power Supply

## Technical Information

| Nominal Line Voltage | Operates at 120 or $277 \mathrm{Vac}, \pm 10 \%$, with a frequency range from $50-60 \mathrm{~Hz}$ |
| :---: | :---: |
| Electrical Isolation | 3.75 kV RMS from C-Bus to the line |
| Current Output | 350 mA to the C-Bus network |
| Status Indicators | Unit: Unit power C-Bus: Network voltage level and presence of system clock |
| Power Supplies per Network | Up to five power supplies on a single C-Bus network |
| C-Bus Connection | (2) RJ-45 sockets for connection to the C-Bus network |
| Cable | (1) 15.75 in . ( 400 mm ) patch lead included |
| Dimensions | 3.35 in . (H) $\times 2.84 \mathrm{in}$. (W) $\times 2.60 \mathrm{in}$. (D) [85 mm (H) $\times 72 \mathrm{~mm}(\mathrm{~W}) \times 66 \mathrm{~mm}$ (D)] |
| Mounting | DIN rail, 4M wide |
| Weight | 7 oz (200 g) |
| Operating Environment | Temp.: $32^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.40^{\circ} \mathrm{C}\right)$ Environment RH: 95\%, noncondensing |
| Storage Environment | Temp.: $14^{\circ} \mathrm{F}$ to $140^{\circ} \mathrm{F}\left(-10^{\circ} \mathrm{C}\right.$ to $\left.60^{\circ} \mathrm{C}\right)$ Environment RH: 95\%, noncondensing |
| Standards | UL: Listed 916 Energy Management Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 148

| Catalog Number | Description |
| :--- | :--- |
| SLC5500TPS | 120 Vac Power Supply |
| SLC5500HPS | 277 Vac Power Supply |

## Product Features

- Available in 120 and 277 Vac models
- Regulating power supply compensates for line voltage and frequency variations, so there is constant output
- Sources up to 350 mA to the C-Bus network
- UL listed to operate in parallel with other C-Bus power supplies, up to five on a single C-Bus network
- Incorporates short circuit and reverse polarity protection
- Indicates the line voltage status with a Unit LED
- Indicates the network status, including the network power and the presence of the C-Bus clock, with a C-Bus LED
- Standard built-in C-Bus network connectors: (2) RJ-45


## Powerlink Device Power Supply

The Powerlink Device Power Supply is used to distribute power on a C-Bus network. Placed at critical points on the network, device power supplies will provide the current necessary for operating a variety of passive Schneider Electric C-Bus devices.

A Powerlink Device Power Supply consists of a C-Bus 8M enclosure containing one or two 4M Power Supplies.


Powerlink Device Power Supply

## Technical Information

| Nominal Line Voltage | Operates at 120 or $277 \mathrm{Vac}, \pm 10 \%$, with a frequency range from $50-60 \mathrm{~Hz}$ |
| :---: | :---: |
| Maximum Line Current | 9.9 mA for 120 V power supply 4.3 mA for 277 V power supply |
| Electrical Isolation | 3.75 kV RMS from C-Bus to the line |
| Current Output | 350 mA (single power supply unit) 700 mA (dual power supply unit) |
| Dimensions | 12.57 in . (L) $\times 8.88 \mathrm{in}$. (W) $\times 3.8 \mathrm{in}$. (D) [319 mm (L) $\times 226 \mathrm{~mm}(\mathrm{~W}) \times 97 \mathrm{~mm}$ (D)] |
| Weight | One power supply: $8.84 \mathrm{lb}(4.01 \mathrm{~kg})$ Two power supplies: $9.28 \mathrm{lb}(4.21 \mathrm{~kg})$ |
| Operating Environment | Temp.: $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}: 95 \%$, noncondensing |
| Standards | UL: Listed 508A Industrial Control Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 89

| Catalog Number | Description |
| :--- | :--- |
| NFDP1120G3C | 120 V Powerlink Single Power Supply |
| NFDP2120G3C | 120 V Powerlink Dual Power Supply |
| NFDP1277G3C | 277 V Powerlink Single Power Supply |
| NFDP2277G3C | 277 V Powerlink Dual Power Supply |

## Product Features

- Surface-mount NEMA 1 enclosure with trim assembly
- Unit and C-Bus LEDs indicate the status of the line voltage and the network
- Sources up to 700 mA (dual power supplies) to the C-Bus network
- 120 or 277 Vac models available
- UTP connection jumper included for dual supply


## Powerlink Device Router

The Powerlink Device Router allows the exchange of data between a Powerlink NF3000G3C controller and Schneider Electric C-Bus devices.

The bidirectional device router can receive data from C-Bus input devices and send the data to the Powerlink panel/network. It can also receive data such as a contact closure from the Powerlink input and send that data to a C-Bus output/network.

The device router consists of a 8M enclosure containing a PC Interface and a Power Supply. Communication between the device router and the NF3000G3C controller is made with the included 50 -foot serial cable.


Powerlink Device Router

Technical Information

| Nominal Line Voltage | Operates at 120 or $277 \mathrm{Vac}, \pm 10 \%$, with a frequency range from $50-60 \mathrm{~Hz}$ |
| :---: | :---: |
| Maximum Line Current | 9.9 mA for 120 V device router 4.3 mA for 277 V device router |
| Electrical Isolation | 3.75 kV RMS from C-Bus to the line |
| Current Output | 350 mA to the C-Bus network |
| Status Indicators | Unit and Unit/Comms: Line voltage, unit power, and data transmission C-Bus: Power levels and presence of C-Bus clock |
| Serial Connection | (1) 9-pin RS-232 D-type serial connector (2) RS-232 RJ-45 connectors |
| C-Bus Connection | (2) RJ-45 sockets for connection to the C-Bus network |
| Data Cable | 50 ft . serial |
| Dimensions | 12.57 in. (L) $\times 8.88$ in. (W) $\times 3.8 \mathrm{in}$. (D) [319 mm (L) $\times 226 \mathrm{~mm}$ (W) $\times 97 \mathrm{~mm}$ (D)] |
| Weight | $9.1 \mathrm{lbs}(4.13 \mathrm{~kg})$ |
| Operating Environment | Temp.: $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}$ : $95 \%$, noncondensing |
| Standards | UL: Listed 508A Industrial Control Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 89

| Catalog Number | Description |
| :--- | :--- |
| NFDR120G3C | 120 V Powerlink Device Router |
| NFDR277G3C | 277 V Powerlink Device Router |

Product Features

- Surface-mount NEMA 1 enclosure with trim assembly
- Unit, Unit/Comms, and C-Bus LEDs indicate the status of data transmission and power to the unit and the network
- System network clock for synchronizing communications data
- Network power source, supplying up to 350 mA
- 120 or 277 Vac models available


## C-Bus

## Pascal Automation Controller

The C-Bus Pascal Automation Controller (PAC) provides extended conditional and real-time event programming to C-Bus systems. The PAC supports a full range of programming commands including conditional logic, flow control, variables and scheduling.

Systems integrators will appreciate the built-in scheduling tools, scene tools, and wizards for creating basic logic programs. Full programming capabilities can be achieved utilizing the free-form script editor based off the PASCAL programming language.

The PAC directly connects to a wired C-Bus system. Programs are downloaded from a personal computer through a USB connection.


Pascal Automation Controller

## Technical Information

| C-Bus Supply Voltage | 15-36 Vdc @ 32 mA Drawn from the C-Bus network |
| :---: | :---: |
| RS-232 Supply Voltage | 24 Vac @ 20 mA (power source not provided) |
| Battery Backup Supply Voltage | 12 Vdc @ 30 mA (power source not provided) |
| Connections | 2 C-Bus RJ-45 sockets (in parallel), 2 RS-232 RJ-45 sockets, 1 USB type B socket, screw terminals for 12 Vdc battery and 24 Vac power |
| C-Bus System Clock | Software selectable |
| Network Burden | Software selectable |
| Status Indicators | Unit/Comms, C-Bus, Status and User |
| Dimensions | $2.83 \times 3.62 \times 2.48$ inches ( $72 \times 92 \times 63 \mathrm{~mm}$ ) |
| Weight | 5.29 oz (150 g) |
| Mounting | DIN 4M wide |
| Operating Environment | $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) 10 \%-95 \% \mathrm{RH}$, noncondensing |
| Standards | CSA 22.2 Spec 205 Signal Equipment |

*For Diagram see technical section page 149

| Catalog Number | Description |
| :--- | :--- |
| SLC5500PACA | Pascal Automation Controller |

Product Features

- Conditional and real-time events programming for C-Bus
- Connects directly to C-Bus network
- Powered from the C-Bus network
- USB port for connection to personal computer
- (2) RS-232 ports for third party device control
- Real time, astronomical and C-Bus system clock included with 24 hour internal capacitor backup and external 12 Vdc battery terminals


## Programming capabilities including:

- Conditional logic (if, then, and, or, not, etc.)
- Flow Contro (for, repeat, while)
- Variables (integer, real, Boolean, character, string)
- Control and monitoring of group addresses
- Control and monitoring of scenes


## C-Bus

## General Input Unit

The C-Bus Four-Channel General Input Units are DIN-rail mounted devices that measure TTL digital and real-world analog quantities and generate messages about the measurements to the C-Bus network. By acting as an interface with various external sensors, the general input unit enables integration of the C-Bus network with a variety of system types, such as those for HVAC and for power monitoring.

Configuration options include selectable input types, eight adjustable decision thresholds per channel, definable actions, selectable filtering, broadcast rates, and a separate hysteresis value per channel.

## Technical Information

| Nominal Voltage Requirements | 15-36 volts @18 mA from the C-Bus network |
| :---: | :---: |
| Nominal | 120 Vac |
| Nominal Supply Voltage | $16-27 \mathrm{Vac} / \mathrm{dc}, \pm 10 \%, 50-60 \mathrm{~Hz}$, provided by an external power supply (included) |
| AC Input Impedance | 100 kOhm @ 1 kHz |
| External Power Supply | 24 Vac @ 500 mA |
| Electrical Isolation | 500 V RMS per input |
| Nominal 24 Vdc Output Voltage | 24 Vdc @ $250 \mathrm{~mA}, \pm 10 \%$ General Input |
| Digital Sensor Input | TTL, 5 V from external source |
| Analog Sensor Inputs: Voltage Ranges Input Current Ranges Resistance Ranges | $\begin{aligned} & 0-1,0-5,0-10,0-20 \mathrm{Vdc} \\ & 0-20 \mathrm{~mA} \mathrm{DC}, 4-20 \mathrm{~mA} \mathrm{DC} \\ & 0-500 \mathrm{ohm}, 0-1000 \text { ohm, } 0-3000 \text { ohm, } 0-10000 \text { ohm } \end{aligned}$ |
| Maximum Input Voltages | -20 V to 60 Vdc |
| Input Voltage Range Impedance | At least 100 kOhm |
| Current Sense Impedance | 249 ohm |
| Resistance Range Injection Current | $500 \mu \mathrm{~A}$ |
| Basic Accuracy after Calibration | 0.5\% of full scale |
| Maximum Input Frequency | 10 Hz |
| Broadcast Rates | 2-1024 sec |
| Number of Units per Network | 10 |
| C-Bus Connections | (2) RJ-45 connectors, CAT 5 UTP cable required |
| Cable | 15.75 in. (400 mm) patch lead included |
| Terminals | Accommodate 16-12 AWG cable ( $2 \times 1.31 \mathrm{~mm}^{2}$ or $1 \times 3.31 \mathrm{~mm}^{2}$ ) |
| Status Indicators | Unit/Comms: Unit power and data transmission C-Bus: Power levels and presence of C-Bus clock |
| Dimensions | 5.7 in. (L) $\times 3.4 \mathrm{in}$. (W) $\times 2.6 \mathrm{in}$.(H) [144 mm (L) $\times 85 \mathrm{~mm}(\mathrm{~W}) \times 65 \mathrm{~mm}(H)$ ] |
| Weight | 7 oz (190 g) |
| Mounting | DIN rail, 8M wide |
| Operating Environment | $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}$ : $95 \%$, noncondensing |
| Standards | CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital EN61000-4-2 Immunity to ESD UL Listed 916 Energy Management Equipment |

[^3]| Catalog Number | Description |
| :--- | :--- |
| SLCE5504TGI | 4 Channel General Input Unit |



## Product Features

- Measures TTL digital quantities including voltage, current, or resistance from external sensors such as light level, pressure, and temperature
- Four channels of input, each with an adjustable hysteresis value, eight decision thresholds, and a software-selectable input value transformation in the form $y=a x+b$
- Input channels are compatible with a range of third-party sensors
- Look-up table with interpolation
- Capable of threshold switching or broadcasting values onto the network
- Control functions include load switching, dimming, trigger applications, enable control applications, and measurement applications
- Measures input signals up to 10 Hz and has an adjustable input-signal filter to reduce susceptibility to impulse and noise
- Supplies 250 mA to external sensors
- LEDs indicate the status of the network at the unit and the unit's power and data transmissions
- Software-selectable network burden and C-Bus system clock
- Standard built-in C-Bus network connectors: (2) RJ-45
- Non-volatile memory stores operating status for recovery from a power outage
- Includes 120 V/24 Vac power pack


## C-Bus

## Bus Coupler

The C-Bus Bus Couplers are non-isolated input devices that provide an interface between dry-contact mechanical switches and a C-Bus network. The bus coupler increases the versatility of the C-Bus network by facilitating remote access with any dry-contact switch mechanism offered by Schneider Electric and other manufacturers.

A system's flexibility can be further enhanced by using the bus coupler with various other switch types, including reed, pressure, or micro switches.

Available in two- and four-channel models, the bus coupler is small enough to be used in restricted spaces. Configuration options include standard control functions such as ON/OFF, toggle, dimmers, and timers.

## Technical Information

| Nominal Voltage Requirements | 15-36 Vdc @ 18 mA , drawn from the C-Bus network |
| :---: | :---: |
| Electrical Isolation | None |
| Voltage Across Input | External Switch Opens: 5 Vdc External Switch Closes: 0 Vdc |
| Current-Switch Closed | Less than $50 \mu \mathrm{~A}$ |
| Distance Between | 2-Channel Coupler: Up to $1 \mathrm{ft}.(0.3 \mathrm{~m})$ each |
| Switch and Bus Coupler | 4-Channel Coupler: Up to 3 ft . (1 m) each |
| LED Drive Output | 2-Channel Coupler only: 2 mA @ 12 V |
| Maximum Input Voltages | -20 to 60 Vdc |
| Number of Units per Network | Use the C-Bus Calculator, a software utility, to determine the total network current load |
| C-Bus Connections | Two-way removable screw-type terminals accommodating 24-16 AWG cable ( $0.2-1.31 \mathrm{~mm}^{2}$ ) |
| Channel Input | Spring-loaded terminal block accommodating |
| Connections | 24-12 AWG cable (0.2-3.31 mm²) |
| Status Indicators | Channel (2 or 4) |
| Timers | $1 \mathrm{sec}-18 \mathrm{hr}, 1 \mathrm{sec}$ intervals |
| Dimensions | 2.2 in. (L) $\times 1.9 \mathrm{in}$. (W) $\times 0.7 \mathrm{in}$. (H)) [ $55 \mathrm{~mm}(\mathrm{~L}) \times 49 \mathrm{~mm}(\mathrm{~W}) \times 18 \mathrm{~mm}(\mathrm{H})$ ] |
| Weight | 1.1 oz (32 g) |
| Operating Environment | $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}$ : $95 \%$, noncondensing |
| Standards | UL: Listed 916 Energy Management Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital, EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 149

| Catalog Number | Description |
| :--- | :--- |
| SLC5102BCLEDL | Two-Channel Bus Coupler |
| SLC5104BCL | Four-Channel Bus Coupler |



Four-Channel Bus Coupler

## Product Features

- Provides two or four non-isolated inputs for external voltage-free mechanical switches. Two-channel units feature independent remote LED outputs
- Control options include ON/OFF, toggle, dimmer, or timer
- Orange LED for each channel to indicate operational status
- Two-way removable terminal block for the C-Bus connection
- Terminal block allows connection of up to four external switches (four-channel coupler) or two external switches and two external LEDs (two-channel coupler)
- Small size for adaptation to restricted spaces
- Non-volatile memory stores operating status for recovery from a power outage
- Receives data and power over a network, so it does not require power packs or line voltage connections


## C-Bus

## Four-Channel Auxiliary Input

The C-Bus Four-Channel Auxiliary Inputs are isolated four-channel input units that provide an interface between voltage-free mechanical switches and a C-Bus network.

An auxiliary unit increases the versatility of the C-Bus network by facilitating remote access with any dry-contact switch mechanism offered by Schneider Electric or other manufacturers.

DIN-rail mounted for quick installation, the auxiliary unit can be configured with standard C-Bus control functions such as remote scene triggering, ON/OFF, toggle, dimmer, or timer.

## Technical Information

| Nominal Voltage Requirements | 15-36 Vdc @ 18 mA , drawn from the C-Bus network |
| :---: | :---: |
| Electrical Isolation | C-Bus/Remote Input: 500 V RMS Remote Input: 500 V RMS |
| Voltage Across Input | External Switch Opens: 5 Vdc External Switch Closes: 0 Vdc |
| Current-Switch Closed | 0.4 mA |
| Switch Resistance | Up to 1000 ohm, including cable resistance ( 26.5 ohms per km resistance for \#18 copper wire coated DC current resistance) |
| Number of Units per Network | Use the C-Bus Calculator, a software utility, to determine the total network current load |
| C-Bus Connections | (2) RJ-45 connectors, CAT 5 UTP cable required |
| Cable | 15.75 in. ( 400 mm ) patch lead included |
| Terminals | Accommodate one 12 or two 14-22 AWG cables $\left(1 \times 3.1 \mathrm{~mm}^{2}\right)$ or $\left.2 \times 2.0-0.3 \mathrm{~mm}^{2}\right)$ ] |
| Status Indicators | Channel: (4) orange LEDs to indicate the load status for each channel |
| Timers | $1 \mathrm{sec}-18 \mathrm{hr}, 1 \mathrm{sec}$ intervals |
| Dimensions | $3.4 \mathrm{in} .(\mathrm{L}) \times 2.8 \mathrm{in} .(W) \times 2.6 \mathrm{in} .(H)$ ) [85 mm (L) $\times 72 \mathrm{~mm}(\mathrm{~W}) \times 65 \mathrm{~mm}(\mathrm{H})$ ] |
| Weight | 4.6 oz (130 g) |
| Mounting | DIN rail, 4M wide |
| Operating Environment | $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}$ : $95 \%$, noncondensing |
| Standards | UL: Listed 916 Energy Management Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 150

| Catalog Number | Description |
| :--- | :--- |
| SLCLE5504AUX | 4 Channel Auxiliary Input Unit |



Four-Channel Auxiliary Input Unit

## Product Features

- Provides four isolated inputs for external voltage-free mechanical switches
- Control options include remote scene triggering, ON/OFF, toggle, dimmer, or timer operations
- Orange LEDs indicate operational status, one for each channel
- Standard built-in C-Bus network connectors: (2) RJ-45
- Non-volatile memory stores operating status for recovery from a power outage


## C-Bus

## DIN Fan Controller

The SLC5501RFCP C-Bus DIN Fan Controller unit is a DIN rail mounted C-Bus output device that provides single-button speed control for a single ceiling fan.

The Fan Controller can be installed in a standard C-Bus enclosure, or in an optional enclosure, such as SLC5501FRE plastic enclosure, on a wall or in a ceiling space.

The SLC5501RFCP Fan Controller provides C-Bus control of a ceiling fan for up to three speeds (Low, Medium and High) and off and can be displayed in C-Bus DLT keypads. Control can be included in scenes and schedules. Fan controllers are Master/slave configurable, so multiple fans can be controlled from a single switch using multiple controllers.

The unit is for indoor use only. The fan controller must be mounted in an enclosure that is properly-rated for the application. A qualified person must install the electrical connections.

## Technical Information

| C-Bus input voltage | $15-36$ Vdc |
| :--- | :--- |
| C-Bus current requirement | 18 mA, powered from C-Bus network, does not provide power <br> for the C-Bus network |
| Maximum units <br> per network | 100 |
| Network clock | Software selectable |
| Network burden | Software selectable when Unit Address is 001 |
| AC input impedance | $100 \mathrm{k} \Omega$ @ 1 kHz |
| Warm-up time | 10 seconds |
| Electrical isolation | 3.75 kV from C-Bus to mains |
| Input voltage for fan motor | 120 Vac; input circuit must have a suitable circuit breaker |
| Fan load rating | 1.5 A FLA |
| Motor load rating | 1.5 FLA, 9 LRA |
| Switch duty type (S1) | Continuous duty. Line and neutral are switched. Fan motor and <br> neutral are switched. |
| Speed control | Three unique fan speeds Low, Med, and Hi and Off. |
| Connectors | C-Bus: $2 \times$ RJ-45 <br> Fan: $2 \times$ screw type for one 16 AWG (1.5 mm²) wire <br> Input Power: $2 \times$ screw type for up to two 16 AWG (1.5 mm²) |
| Indicators | Unit, C-Bus, $3 \times$ Fan speed |
| Control | Local override pushbutton, not illuminated |
| Rated impulse <br> withstand voltage | 4 kV |
| Mounting type | DIN rail, or wall or ceiling space mounting in the optional plastic <br> enclosure; For indoor use only |
| Weight | Fan Controller Relay Unit: 5.11 oz (145 g) <br> Optional plastic enclosure: 7.76 oz (220 g) |
| Operating temperature | $32^{\circ} \mathrm{F}$ to $149^{\circ} \mathrm{F} \mathrm{(0}^{\circ} \mathrm{C}$ to $\left.65^{\circ} \mathrm{C}\right)$ |
| Humidity | $10 \%$ to $95 \%$ RH, non condensing |

*For Diagram see technical section page 150
Note: There are no user-serviceable parts. The unit draws no power from mains and requires no line connection to operate.

| Catalog Number | Description |
| :--- | :--- |
| SLC5501RFCP | C-Bus output unit for controlling a ceiling fan |
| SLC5501FRE* | Enclosure to accommodate a C-Bus ceiling fan controller <br> output unit |

*The SLC5501FRE is optional equipment and not UL certified or rated for plenum use. Use an enclosure that is properly-rated for your application.

## C-Bus

## Indoor PIR Occupancy Sensor

The C-Bus Indoor PIR Occupancy Sensor provides reliable thermal-radiation-based control of lighting and other C-Bus output devices.

Suitable for wall or ceiling mounting, this sensor offers a continuous detection field of 400 square feet and a $90^{\circ}$ field of view. The entire detection field has uniform sensitivity and no dead zones, making it an ideal lighting-control solution for offices, corridors, and conference rooms.

Configuration options include an adjustable light-level sensor that can be set to automatically turn off lights when ambient light levels are sufficient or turn on lights when ambient light levels are insufficient.

## Technical Information

| Nominal Voltage Requirements | 15-36 Vdc @ 18 mA , drawn from the C-Bus network |
| :---: | :---: |
| Field of View | $90^{\circ}$ |
| PIR Detection Field | Typically 400 sq ft. (37 sq m) |
| Light-Level inhibit Threshold | 0.1 footcandle (1 lux) to full sunlight |
| Timer Delay Range | $0 \mathrm{sec}-18 \mathrm{hr}, 1 \mathrm{sec}$ interval |
| Number of Units per Network | Use the C-Bus Calculator, a software utility, to determine the total network current load |
| C-Bus Connection | Screw-type terminals, input terminals accommodate 24-16 AWG cable ( 0.2 - $1.31 \mathrm{~mm}^{2}$ ) |
| Status Indicators | LED can be configured to turn on when movement is detected |
| Dimensions | 3.9 in . (W) $\times 2.2 \mathrm{in}$. (H) [100 mm (W) $\times 57 \mathrm{~mm}(\mathrm{H})$ ] |
| Weight | 4.4 oz (125 g) |
| Mounting | Surface: Ceiling or wall Ht: 8 ft . ( 2.4 m ) above floor |
| Operating Environment | Indoor $32^{\circ} \mathrm{F}$ to $122^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.50^{\circ} \mathrm{C}\right)$ |
| Standards | UL: Listed 916 Energy Management Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 150

| Catalog Number | Description |
| :--- | :--- |
| SLC5751L | $90^{\circ}$ Indoor PIR Occupancy Sensor |



Indoor PIR Occupancy Sensor

## Product Features

- Indoor use, wall or ceiling-mounted unit with a $90^{\circ}$ field of view and a detection area of 400 square feet
- LED can be configured to indicate motion detection
- Light-level sensor has Sunrise/Sunset settings, clock overrides, and adjustable sensitivity ranging from 0.1 foot candle to full sunlight
- Advanced circuitry to help prevent false triggering, including electrostatic and electromagnetic shields, dual element detectors, pyroelectric ceramic sensors, and an optical band pass filter
- Controls up to four C-Bus group addresses that can be individually scheduled
- Non-volatile memory stores operating status for recovery from a power outage
- Receives data and power over a network, so the sensor does not require power packs or line voltage connections


## C-Bus

$360^{\circ}$ PIR Occupancy Sensor

The C-Bus $360^{\circ}$ Indoor PIR Occupancy Sensor combines a passive infrared receiver (PIR) for occupancy sensing and a light-level sensor into a small, highly versatile unit. The multi-sensor's 2.8 inch face diameter makes it unobtrusive and ideally suited for flush mounting on the ceiling.

This sensor has a 360 degree field of view with an effective coverage pattern of more than 800 feet, so it is ideally suited for offices, copier rooms, closets, and restrooms. Multiple sensors can be connected to the same C-Bus network to provide larger coverage patterns.

Configuration options include adjustable time delays for automatic shut-off following a preset time period without detected motion and an adjustable light-level sensor that can be set to automatically turn off lights when ambient light levels are sufficient or turn on lights when ambient light levels are insufficient.

## Technical Information

| Nominal Voltage Requirements | 15-36 Vdc @ 18 mA, drawn from the C-Bus network |
| :---: | :---: |
| Field of View | $360^{\circ}$ |
| PIR Rated Detection Field | Typically $800 \mathrm{sq} \mathrm{ft}$. ( 74 sq m ) when sensor is mounted 8 ft . ( 2.4 m ) above floor |
| Light-Level inhibit Threshold | 0.1 footcandle (1 lux) to full sunlight |
| Timer Delay | 0 sec to 18 hr |
| Number of Units per Network | Use the C-Bus Calculator, a software utility, to determine the total network current load |
| C-Bus Connection | Two removable terminal blocks, requires CAT 5 data cable |
| Status Indicators | LED can be configured to turn on when movement is detected |
| Dimensions | $4.1 \mathrm{in} .(\mathrm{L}) \times 2.8 \mathrm{in}$. (W) [103 mm (L) $\times 72 \mathrm{~mm}(\mathrm{~W})$ ] |
| Weight | $4.4 \mathrm{oz}(125 \mathrm{~g})$ |
| Mounting | Surface: Ceiling <br> Ht: 8 ft . ( 2.4 m ) above floor <br> Max. Ht: 12 ft . ( 3.7 m ) above floor <br> Min. Ceiling Thickness: $0.4-0.75 \mathrm{in}$. ( $10-19.1 \mathrm{~mm}$ ) |
| Operating | Indoor only |
| Environment | $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right)$ RH: 95\%, noncondensing |
| Standards | UL: Listed 916 Energy Management Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 151

| Catalog Number | Description |
| :--- | :--- |
| SLC5753L | $360^{\circ}$ PIR Occupancy Sensor |


$360^{\circ}$ PIR Occupancy Sensor

## Product Features

- $360^{\circ}$ detection pattern, indoor use
- Effective coverage area is more than 800 square feet when unit is mounted 8 feet above the floor
- Dual element detectors minimize false triggering
- LEDs indicate movement detection and status of the IR receiver, and the light-level sensor
- Can control up to four scenes or group addresses that can be individually scheduled
- Adjustable light-level sensor with Sunrise/Sunset and clock overrides
- Attractive, low profile unit can be flush mounted on ceiling or suspended from wall tiles where it is unobtrusive, with a face diameter of only 2.8 inches
- Non-volatile memory stores operating status for recovery from a power outage
- Receives data and power over a network. No power packs or line voltage connections required


## C-Bus

## $360^{\circ}$ PIR Multi-Sensor

The C-Bus $360^{\circ}$ PIR Multi-Sensor combines a passive infrared receiver (PIR) for occupancy sensing, a light-level sensor, and an infrared remote receiver into a small, highly versatile unit. The sensor's 2.8 inch face diameter makes it unobtrusive and ideally suited for flush mounting on the ceiling.

Configuration options for the occupancy sensor include adjustable time delays for automatic shut-off following a preset time period without detected motion and an adjustable light-level sensor to turn on lights automatically when ambient light levels are low or turn off lights when ambient light levels are sufficient. The built-in IR receiver accepts commands from an optional handheld remote controller, making the sensor ideal for classrooms and conference room areas.

$360^{\circ}$ PIR Multi-Sensor

## Technical Information

| Nominal Voltage Requirements | 15-36 Vdc @ 18 mA , drawn from the C-Bus network |
| :---: | :---: |
| Field of View | $360^{\circ}$ |
| PIR Rated Detection Field | Typically 800 sq ft . ( 74 sq m ) when sensor is mounted 8 ft . ( 2.4 m ) above floor |
| IR Receiver Rated Detection Field | Typically $800 \mathrm{sq} \mathrm{ft}$. ( 74 sq m ) when sensor is mounted 8 ft . ( 2.4 m ) above floor |
| Light-Level inhibit Threshold | 0.1 footcandle (1 lux) to full sunlight |
| Timer Delay | 0 sec to 18 hr |
| Number of Units per Network | Use the C-Bus Calculator, a software utility, to determine the total network current load |
| C-Bus Connection | Two removable terminal blocks, requires CAT 5 data cable |
| Status Indicators | PIR Sensor or IR Receiver (activity) PIR Sensor (enabled/disabled) Light Level Maint. (enabled/disabled) |
| Dimensions | $4.1 \mathrm{in} .(\mathrm{L}) \times 2.8 \mathrm{in}$. (W) [103 mm (L) $\times 72 \mathrm{~mm}(\mathrm{~W})$ ] |
| Weight | 4.4 oz (125 g) |
| Mounting | Surface: Ceiling <br> Ht: 8 ft . ( 2.4 m ) above floor <br> Max. Ht: 12 ft . ( 3.7 m ) above floor <br> Min. Ceiling Thickness: $0.4-0.75 \mathrm{in}$. ( $10-19.1 \mathrm{~mm}$ ) |
| Operating | Indoor only |
| Environment | $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right)$ RH: 95\%, noncondensing |
| Standards | UL: Listed 916 Energy Management Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 151

| Catalog Number | Description |
| :--- | :--- |
| SLC5753PEIRL | $360^{\circ}$ PIR Multi-Sensor |


| Accessories | Description |
| :--- | :--- |
| SLC5084TX | IR 4-Button Remote Controller (ordered separately) |
| SLC5088TX | IR 8-Button Remote Controller (ordered separately) |

## Product Features

- $360^{\circ}$ detection pattern, indoor use
- Effective detection area of occupancy sensor is more than 800 square feet when unit is mounted 8 feet above the floor. Effective IR coverage is 800 square feet.
- Dual element detectors minimize false triggering
- LEDs indicate movement detection and status of the IR receiver, the occupancy sensor, and the light-level sensor
- Can control up to eight C-Bus scenes or directly control up to eight C-Bus group addresses that can be individually scheduled
- Adjustable light-level sensor has Sunrise/Sunset and clock overrides
Attractive, low profile unit can be flush mounted on ceiling or suspended from wall tiles where it is unobtrusive, with a face diameter of only 2.8 inches
- Optional handheld remote controller (SLC5084TX, SLC5088TX)
- Non-volatile memory stores operating status for recovery from a power outage
- Receives data and power over a network, so the sensor does not require power packs or line voltage connections


## C-Bus

## Outdoor Motion Sensor

The C-Bus Outdoor PIR Motion Sensor combines reliable thermal-radiation-based control of lighting with rugged construction suitable for outdoor requirements. The unit's advanced circuits and flat multi-segmented lens provide coverage of up to 3000 square feet in a $110^{\circ}$ field of view.

The detection area incorporates a multi-faceted lens, which ensures fast response to motion and few dead zones. Electrostatic and electromagnetic shields, dual element detectors, an optical bandpass filter, and pyroelectric ceramic sensors are used to reduce the incidence of false triggering.

Configuration options include an adjustable light-level sensor that can be set to automatically turn off lights when ambient light levels are sufficient or turn on lights when ambient light levels are insufficient.


Outdoor PIR Motion Sensor

## Product Features

- Outdoor use, wall or ceiling-mounted unit with a $110^{\circ}$ field of view and a detection area up to 3000 square feet in diameter
- Lens has 12 overlapping zones on each of 4 levels, forming a continuous detection field
- Rugged construction and pre-wired flexible cord
- LED indicates motion detection
- Light-level sensor has Sunrise/Sunset settings, clock overrides, and adjustable sensitivity ranging from 0.1 footcandle to full sunlight
- Controls up to four C-Bus group addresses that can be individually scheduled
- Non-volatile memory stores operating status for recovery from a power outage
- Receives data and power over a network, so the sensor does not require power packs or line voltage connections


## C-Bus

## Light-Level Sensor

The C-Bus Light-Level Sensor measures ambient light levels and automatically issues ON, OFF, or ramp commands over a C-Bus network. The light-level sensor can control relays, dimmers, or remotely operated circuit breakers, changing their status according to pre-set ambient lighting levels.

The C-Bus light-level sensor has a dynamic range between 5-150 footcandles, and compensates for noise and rapid light intensity fluctuations by using filtering and hysteresis.

The light-level sensor can control up to two C-Bus group addresses: one address controls the switching ON/OFF of a lamp circuit according to the amount of ambient light, while the other is used to continuously regulate the light-level output of any number of lamps.


Light Level Sensor
Technical Information

| Nominal Voltage Requirements | $15-36 \mathrm{Vdc}$ @ 18 mA , drawn from the C-Bus network |
| :---: | :---: |
| Light Level | Reads: $2-278$ footcandles ( $20-3000$ lux) <br> Controls: 5-148 footcandles (40-1600 lux) |
| Field of View | $180^{\circ}$ |
| C-Bus Connection | Accommodates $6 \times 24$ AWG cable ( $6 \times 0.2 \mathrm{~mm}^{2}$ ) |
| Status Indicators | Can be configured to report state of any one of three group addresses: Enabled, ON/OFF, or Ramp |
| Dimensions | 4.57 in . (L) $\times 2.99$ in. (W) $\times 1.93$ in. (D) [116 mm (L) $\times 76 \mathrm{~mm}(\mathrm{~W}) \times 49 \mathrm{~mm}$ (D)] |
| Weight | 3 oz (85 g) |
| Operating | Indoor only |
| Environment | $32^{\circ} \mathrm{F}$ to $122^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.50^{\circ} \mathrm{C}\right)$ RH: 95\%, noncondensing |
| Standards | UL: Listed 916 Energy Management Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 151

## Product Features

- Can maintain constant illumination levels of 5-150 footcandles
- Controls up to two C-Bus group addresses, one set for ON/OFF operations and one set for ramping operations
- $180^{\circ}$ field of view
- Can be enabled or disabled over the C-Bus network
- Stores operating status in non-volatile memory for recovery from a power outage
- Receives data and power over a single C-Bus twisted pair cable
- Verifies status of input and output devices on same C-Bus application address, updating input status if necessary
- LED can be configured to indicate current status of any C-Bus group address
- Attractive, wall-mounted, low-profile unit

| Catalog Number | Description |
| :--- | :--- |
| SLC5031PE | Light-Level Sensor |

## C-Bus

## Outdoor Light-Level Sensor

The C-Bus light-level sensor measures ambient light levels and automatically issues ON/OFF or ramp commands over a C-Bus network to maintain outdoor lighting levels. Primarily designed for outdoor use, this light-level sensor is also suitable for indoor settings in which a water resistant casing is desirable.

Technical Information

| Nominal Voltage Requirements | 15-36 Vdc @ 18 mA , drawn from the C-Bus network |
| :---: | :---: |
| Field of View | $180^{\circ}$ |
| Light-Level Range | Reads: $2-278$ footcandles ( $20-3000$ lux) <br> Controls: 5-148 footcandles (40-1600 lux) |
| C-Bus Connection | Screw-type input terminals accommodate $6 \times 24$ AWG cable ( $6 \times 0.2 \mathrm{~mm}^{2}$ ) Connection requires CAT 5 data cable |
| Max. Units/Network | Based on the total network current load and available power |
| Conduit Openings | Sized for 20 mm and 25 mm conduit fittings |
| Dimensions | 4 in . (L) $\times 4 \mathrm{in}$. (W) $\times 2.5 \mathrm{in}$. (D) [102 mm (L) $\times 102 \mathrm{~mm}$ (W) $\times 65 \mathrm{~mm}$ (D)] |
| Weight | 10.8 oz (305 g) |
| Mounting | Indoor or outdoor, wall or ceiling Indoor Height: At least 6.5 ft . ( 1.9 m ) above floor |
| Operating Environment | Outdoor or indoor $-22^{\circ} \mathrm{F}$ to $122^{\circ} \mathrm{F}\left(-30^{\circ} \mathrm{C}\right.$ to $\left.50^{\circ} \mathrm{C}\right)$ RH: 95\%, noncondensing |
| Standards | FCC: Part 15.101, Class B Digital Device |

*For Diagram see technical section page 152


Outdoor Light Level Sensor

## Product Features

- Outdoor use, wall- and ceiling-mounted low-profile unit
- Can maintain a constant illumination level of 5-150 footcandles
- Control of up to two C-Bus group addresses
- Sensors receive data and power over a single C-Bus twisted-pair cable, so they do not require power packs or line-voltage connections
- $180^{\circ}$ field of view

| Catalog Number | Description |
| :--- | :--- |
| SLC5031PEWP | Outdoor Light-Level Sensor |

## C-Bus

## Professional Series Dimmer

The C-Bus Professional Dimmers are designed to control incandescent and compatible low-voltage lighting. These dimmers are ideal for tight space applications where traditional rack mounted assemblies are not practical.

Professional dimmer units are available in 5 A (4 channels), 10 A (two channels), and 20 A (one channel) models. Each channel provides independent dimming and incorporates thermal overload and over-current protection. These dimmer units automatically compensate for voltage and frequency fluctuations and employ advanced phase-control techniques to reduce flicker and increase lamp life.

The aluminum enclosure acts as a heat sink and is designed for easy wall mounting, including keyhole mounts and removable terminals for the C-Bus and override connections. An optional terminal box is available for conduit connections. Configuration options include network monitoring of the channel load and network voltages, adjustable delays for dimming levels, and master override.

## Technical Information

| Nominal Voltage Requirements | C-Bus voltage 15-36 Vdc |
| :---: | :---: |
| Nominal Line Supply Voltage and Frequency | $110-120 \mathrm{Vac}, \pm 10 \%, 50 / 60 \mathrm{~Hz}$ |
| Useable Output Current | 60 mA |
| Frequency Drift | 3 Hz per minute, maximum |
| Frequency Step Change | 0.1 Hz (maximum) |
| Minimum Load | 100 W per channel |
| Current Sensing | $5-100 \%$ of full-rated load, 5\% accuracy |
| Efficiency | 98\% |
| Number of Units per Network | Use the C-Bus Calculator, a software utility, to determine the total network current load |
| C-Bus Connections | Four-way removable screw terminals, CAT 5 UTP cable required |
| Load Terminals | Accommodates one \#12 or up to two \#14 AWG cable [(3.31 mm $\left.\left.{ }^{2}-1.3 \mathrm{~mm}^{2}\right)\right]$ |
| Auxiliary Contacts | 2.5 A @ 120 Vac, normally open, voltage free, resistive |
| Status Indicators | Channel, Unit and C-Bus |
| Dimensions | $\begin{aligned} & 9.45 \mathrm{in} .(\mathrm{L}) \times 7.95 \mathrm{in} .(\mathrm{W}) \times 2.95 \mathrm{in} .(\mathrm{H})) \\ & {[240 \mathrm{~mm}(\mathrm{~L}) \times 202 \mathrm{~mm}(\mathrm{~W}) \times 75 \mathrm{~mm}(\mathrm{H})]} \end{aligned}$ |
| Weight | $4.85 \mathrm{lb}(2.2 \mathrm{~kg})$ |
| Operating Environment | $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}$ : $95 \%$, noncondensing |
| Standards | UL508 Industrial Control Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 152

| Catalog Number | Description |
| :--- | :--- |
| SLC5104TD5 | Professional Dimmer 5 A, 4 Channel, 120 Vac |
| SLC5102TD10 | Professional Dimmer 10 A, 2 Channel, 120 Vac |
| SLC5101TD20 | Professional Dimmer 20 A, 1 Channel 120 Vac |
|  |  |
| Accessories | Description |
| SLCU5100TB | Terminal Box |



10A, 2-Channel Professional Dimmer Unit

## Product Features

- Suitable for use with resistive and inductive loads and lowvoltage lamps utilizing iron core or electronic transformers
- Quick-mounting design, including keyhole mounts, front and rear cable access, and removable terminals for C-Bus connections
- Specialized dimming modes-soft turn on/off and linearized brightness control
- Built-in power supply sources 60 mA to the C-Bus network
- Compensates for fluctuations in frequency and voltage of power source
- Monitors load current by channel
- Integral thermal overload protection on each channel
- Individual channels can be turned On/Off at the unit or via C-Bus commands
- LEDs indicate the status of the network at the unit and the status of the unit's load and power
- Optional terminal box for connecting conduit
- Non-volatile memory stores operating status for recovery from a power outage


## C-Bus

## Phase Angle Dimmers

The C-Bus Phase Angle Dimmers are C-Bus controlled output units suitable for incandescent and compatible low-voltage lighting. These units are designed to be rack mounted in suitable DIN style enclosures.

Each of the unit's channels can independently control loads to create dynamic lighting scenes. These dimmer units automatically compensate for voltage and frequency fluctuations and employ advanced phase-control techniques to reduce flicker and increase lamp life.


Phase Angle Dimmer Unit with Power Supply

## Technical Information

| Nominal Voltage Requirements | $15-36 \mathrm{Vdc}$ @ 18 mA from the C-Bus network when there is no external power source |
| :---: | :---: |
| Nominal Line <br> Supply Voltage and Frequency | $110-120 \mathrm{Vac}, \pm 10 \%, 50-60 \mathrm{~Hz}$ |
| C-Bus Source Current | 200 mA (Models: SLC5508TD2A, SLC5504TD4A) |
| Load Rating per Channel | 2 A (SLC5508TD2A), 4 A (SLC5504TD4A) |
| Minimum Load | 15 W per channel |
| Efficiency | 98\% |
| Number of Units per Network | Use the C-Bus Calculator, a software utility, to determine the total network current load |
| C-Bus Connections | (2) RJ-45 connectors, CAT 5 UTP cable required |
| Cable | 15.75 in. (400 mm) patch lead included |
| Remote Override Connection | RJ-45 connector |
| Power Terminals | Accommodate 16-12 AWG cable |
| Load Terminals | $2 \mathrm{x} \# 14$ - 16 gauge or $1 \times \# 12$ gauge |
| Status Indicators | Channel: (1) per channel <br> Unit (1): Unit power <br> C-Bus (1): Power levels and presence of C-Bus clock |
| Dimensions | 8.5 in. (L) $\times 3.6$ in. (W) $\times 2.5 \mathrm{in}$. (H)) [216 mm (L) $\times 92 \mathrm{~mm}(\mathrm{~W}) \times 63 \mathrm{~mm}(\mathrm{H})$ ] |
| Weight | $23 \mathrm{oz} \mathrm{(647} \mathrm{g)}$ |
| Mounting | DIN rail, 12M wide |
| Operating Environment | $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}$ : $95 \%$, noncondensing |
| Standards | UL508 Industrial Control Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

*For Diagram see technical section page 153

| Catalog Number | Description |
| :--- | :--- |
| SLC5504TD4A | Four-Channel 4 A Dimmer, with power supply |
| SLC5504TD4AP | Four-Channel 4 A Dimmer, without power supply |
| SLC5508TD2A | Eight-Channel 2 A Dimmer, with power supply |
| SLC5508TD2AP | Eight-Channel 2 A Dimmer, without power supply |

## Product Features

- Suitable for use with incandescent lamps and low-voltage lamps utilizing iron core or electronic transformers
- Specialized dimming modes - soft turn On/Off and linearized brightness control
- Can supply up to 200 mA to the C-Bus network (models SLC5504TD4A and SLC5508TD2A with built-in power supply)
- Integral thermal overload protection on each channel
- Individual channels can be turned ON/OFF at unit or via C-Bus commands
- LEDs indicate the status of the network at the unit, the status of the unit's load and power, and the status of each channel
- Non-volatile memory stores operating status for recovery from a power outage


## C-Bus <br> 2 Channel DALI Gateway

The C-Bus Digital Addressable Lighting Interface (DALI) Gateway provides an isolated two-way communications path between a C-Bus network and two DALI networks, making it possible to use the C-Bus network to control and monitor DALI ballasts.

The DALI gateway constantly monitors both DALI networks and can detect and report faulty lamps in fluorescent ballasts or non-functional DALI ballasts.

## Technical Information

| Nominal Voltage <br> Requirements | $15-36$ Vdc @ 32 mA , drawn from the C-Bus network |
| :--- | :--- |
| Electrical Isolation | 3.75 kV RMS, from interface to C-Bus network |
| Number of Units <br> per Network | Use the C-Bus Calculator, a software utility, to determine the total <br> network current load |
| C-Bus Connections | Built-in RJ-45 sockets (2) for connection to the C-Bus network |
| DALI Connections | Two screw-type terminal blocks accommodating 16-12 AWG cable <br> $\left(2 \times 1.31 \mathrm{~mm}^{2}\right.$ or $\left.1 \times 2.5 \mathrm{~mm}^{2}\right)$ |
| Cable | $(1) 15.75 \mathrm{in} .(400 \mathrm{~mm})$ patch lead included |$|$| Unit/Comms: Unit power and data transmission |
| :--- |
| C-Bus: Power levels and presence of C-Bus clock |

*For Diagram see technical section page 153

| Catalog Number | Description |
| :--- | :--- |
| SLC5502DAL | Two-Channel DALI Gateway |



DALI Gateway

## Product Features

- Provides two-way communications between C-Bus and DALI networks, routing selected messages from one to the other
- Unit is transparent and invisible to DALI ballasts
- Pre-programmed C-Bus to DALI and DALI to C-Bus addressing structure
- Unit/Comms and C-Bus LEDs show the status of data transmissions, the unit's power, the C-Bus network's power, and the presence of the C-Bus clock
- Software-selectable network burden and network clock
- Standard built-in C-Bus network connectors: (2) RJ-45
- Non-volatile memory to store operating status for recovery from a power outage
- Receives data and power over the network, so the unit does not require power packs or line-voltage connections


## C-Bus

## DMX Gateway

The C-Bus to DMX One Way Gateway converts up to twelve received lighting group address/levels to DMX-512-A data, and then transmits the data to a connected DMX-512-A network.

Using the DMX Gateway, C-Bus can control the following DMX-512-A based devices:

- LED lighting controllers that include control inputs for dimming and color mixing
- Strobes
- Fiber optic lighting
- Fog machines
- Animated characters
- Motorized fixtures


DMX Gateway (SLC5500DMX)

## Product Features

- Enables one way communication between C-Bus and DMX-512-A networks
- Custom-configurable address mapping. (One C-Bus address can control multiple DMX 512 slots)
- Draws power from the C-Bus network
- LEDs display the status of the power, communications, and the C-Bus network
- Remote Override (ON and OFF) options
- Software-selectable network burden and network clock
- Two standard built-in C-Bus RJ-45 network connectors
- Non-volatile memory protects unit against power outages
- Configured by using the C-Bus Toolkit software

| Catalog Number | Description | Quantity |
| :--- | :--- | :--- |
| 5500DMX | C-Bus to DMX One Way Gateway | 1 |

## C-Bus <br> 4 Channel 0-10V Dimmer

The C-Bus 4 Channel 0-10V Dimmer provides four channels of analog 0-10Vdc that can be used as the control signals for various peripheral devices, including certain LED drivers and electronically dimmable fluorescent lighting ballasts.

This analog output unit can sink or source current as appropriate for the connected load, and produces $0-10 \mathrm{~V}$ in response to commands from the C-Bus network.

Each channel can be individually adjusted from 0 to $100 \%$ at the unit, by C-Bus commands or remotely, and each can drive multiple loads.

## Technical Information

| Power Requirements | C-Bus: 15 - 36 Vdc @ 22 mA required for normal operation. Power: 120 V or 277 Vac connection, 10 W |
| :---: | :---: |
| Number of Units per Network | Use the C-Bus Calculator, a software utility, to determine the total network current load |
| Electrical Isolation | 3.5 kV RMS from C-Bus to the line |
| Output Voltage Range | $0-10 \mathrm{Vdc}( \pm 0.5)$ |
| Output Rating | Sourcing: 2.5 mA (minimum of 4 kohm) <br> Sinking: 15 mA at $\mathrm{V}_{\text {out }}=0 \mathrm{~V}$ <br> 8 mA at $\mathrm{V}_{\text {out }}=10 \mathrm{~V}$ <br> [i.e., $I=15-\left(0.7 \times V_{\text {out }}\right) \mathrm{mA}$ ] |
| Status Indicators | Unit: Unit power C-Bus: Network voltage level and presence of system clock |
| C-Bus Connection | (2) RJ-45 terminals |
| Cable | (1) 15.75 in . ( 400 mm ) CAT 5 patch lead with pre-terminated RJ-45 connectors |
| Output Terminals | Accommodates $2 \times 16$ AWG or $1 \times 12$ AWG cable ( $2 \times 1.3 \mathrm{~mm}^{2}$ or $1 \times 3.3 \mathrm{~mm}^{2}$ ) |
| Mounting | DIN rail, 4M wide |
| Dimensions | $\begin{aligned} & 3.35 \mathrm{in} .(\mathrm{L}) \times 2.83 \mathrm{in} .(\mathrm{W}) \times 2.56 \mathrm{in} \text {. (D) } \\ & {[85 \mathrm{~mm}(\mathrm{~L}) \times 72 \mathrm{~mm}(\mathrm{~W}) \times 65 \mathrm{~mm} \text { (D)] }} \end{aligned}$ |
| Weight | 8.64 oz (245 g) |
| Operating Environment | $32^{\circ} \mathrm{F}$ to $122^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.50^{\circ} \mathrm{C}\right) \mathrm{RH}$ : $95 \%$, noncondensing |
| Standards | UL: Listed 916 Energy Management Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-4-2 Immunity to ESD |

4 channel 0-10V Fluorescent Ballast Dimmer

## Product Features

- Produces four independently controllable channels of $0-10 \mathrm{Vdc}$ for controlling dimmable lighting ballasts or other loads
- Each channel can sink or source current and drive multiple loads
- Two RJ-45 connectors facilitate quick connections to the C-Bus network and between similar units
- Unit and C-Bus LEDs show the status of the unit and the network
- Non-volatile memory stores operating status for recovery from a power outage
- 120 or 277 Vac models available
*For Diagram see technical section page 154

| Catalog Number | Description |
| :--- | :--- |
| SLCLE5504TAMP | Analog Output Unit, 0-10 V, 120 V |
| SLCLE5504HAMP | Analog Output Unit, 0-10 V, 277 V |

## C-Bus

## 10 Amp Relay Unit

The C-Bus Relays are DIN-rail mounted units with twelve independent, voltage free, relay contacts for general switching applications. They are suitable for use with resistive, inductive, incandescent and fluorescent loads.

Each channel is independently configurable and features a zero crossing magnetically latching relay designed for switching the harsh electrical loads associated with today's high efficiency lighting systems. Local toggle buttons are provided on each unit to allow individual channels to be toggled at each unit or via C-Bus network commands. Remote ON and OFF facilities are available, permitting all channels to be turned ON or OFF without C-Bus Network communications.


10 Amp Relay

## Product Features

- Four or twelve independently operating voltage free relay contacts
- Two convenient built-in C-Bus network connectors (RJ-45)
- Units available both with and without a 200 mA power supply
- Non-volatile memory stores operating status for recovery from power outage
- LED Indicators show the status of the network and the unit
- Load Rating
» Resistive -10 A
» Inductive -10 A
» Fluorescent-10 A
» Motor - 2 A


## C-Bus

## 20 Amp Relay Units

The C-Bus 20 Amp Relays are DIN-rail mounted units with four independent, voltage free, relay contacts. They are suitable for use with resistive, inductive, incandescent and fluorescent loads.

Each channel is independently configurable and features a zero crossing magnetically latching relay designed for switching the harsh electrical loads associated with today's high efficiency lighting systems. Local toggle buttons are provided on each unit to allow individual channels to be toggled at each unit or via C-Bus network commands. Remote ON and OFF facilities are available, permitting all channels to be turned ON or OFF without C-Bus Network communications.

## Technical Information

| Nominal Supply Voltage | 110 - 120 V (SLC5512TRVF and SLC5512TRVFP) 277 V (SLC5512HRVF and SLC5512HRVFP) |
| :---: | :---: |
| Frequency Range(s) | $50-60 \mathrm{~Hz}$ |
| C-Bus Supply Voltage | $15-36 \mathrm{Vdc}$ @ 18 mA required for programming when electrical power source is not connected. <br> Sources 200 mA to the C-Bus Network with electrical power source connected. |
| Electrical isolation | 3.75 kV RMS from C-Bus to power source |
| Contact Type | Voltage Free, magnetically latched |
| C-Bus Connections | 2 RJ-45 connectors, CAT 5 UTP cable req. |
| Electrical Terminals | Accommodates (1) \#12 or up to (2) \#14-16 AWG ( $2 \times 1.3 \mathrm{~mm}^{2}$ or $1 \times 3.3 \mathrm{~mm}^{2}$ ) |
| Status Indicators | C-Bus Indicator Unit Status Indicator Load Indicator |
| Dimensions | $8.46 \times 3.35 \times 2.56$ inches ( $215 \times 85 \times 65 \mathrm{~mm}$ ) |
| Weight | $20.46 \mathrm{oz}(580 \mathrm{~g})$ |
| Mounting | DIN rail, 12M wide |
| Operating Environment | $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}$ : $95 \%$, noncondensing |
| Standards | UL508 Industrial Control Equipment CSA 22.2 Spec 205 Signal Equipment FCC: Part 15.101, Class B Digital Device EN61000-3-2 Low Frequency Emissions |

*For Diagram see technical section page 154

| Catalog Number | Description |
| :--- | :--- |
| SLC5504TRVF20 | 4 Channel, 120 V,20 A with power supply |
| SLC5504TRVF20P | 4 Channel, 120 V,20 A without power supply |
| SLC5504HRVF20 | 4 Channel, 277 V,20 A with power supply |
| SLC5504HRVF20P | 4 Channel, 277 V,20 A without power supply |

## Product Features

- Four independently operating voltage free relay contacts
- Two convenient built-in C-Bus network connectors (RJ-45)
- Units available both with and without a 200mA power supply
- Non-volatile memory stores operating status for recovery from power outage
- LED Indicators show the status of the network and the unit
- Remote ON/OFF override capabilities
- Load Rating (4 channel 20 Amp rated relay)
»Resistive 20 A
" Inductive 20 A
» Fluorescent 20 A
» Motor 4 A


## C-Bus

## Changeover Relay Units

The C-Bus Changeover Relays are DIN-rail mounted devices with four independent, voltage free, changeover relay contacts.

Schneider Electric C-Bus Changeover Relays are designed to operate threespeed motors and two-way motor control devices. Some of their most common applications include operating motorized blinds, shutters, curtains and skylights (open/closed) where they provide a much simpler alternative to traditional and obtrusive relay interlocking systems.

## Technical Information

| Nominal Supply Voltage | 110 - 120 V (SLC5504TRVFC and SLC5504TRVFCP) <br> 250-277 V (SLC5504HRVFC and SLC5504HRVFCP) |
| :---: | :---: |
| Frequency Range(s) | $50-60 \mathrm{~Hz}$ |
| C-Bus Supply Voltage | $15-36 \mathrm{Vdc}$ @ 18 mA required for programming when electrical power source is not connected. <br> Sources 200 mA to the C-Bus Network with electrical power source connected. |
| Electrical isolation | 3.75 kV RMS from C-Bus to power source |
| Contact Type | Changeover, Non-latching |
| C-Bus Connections | 2 RJ-45 connectors, CAT 5 UTP cable req. |
| Electrical Terminals | Accommodates (1) \#12 or up to (2) \#14-16 AWG ( $2 \times 1.3 \mathrm{~mm}^{2}$ or $1 \times 3.3 \mathrm{~mm}^{2}$ ) |
| Status Indicators | C-Bus Indicator Unit Status Indicator Load Indicator |
| Dimensions | $5.67 \times 3.35 \times 2.60$ inches ( $144 \times 85 \times 65 \mathrm{~mm}$ ) |
| Weight | 13 oz ( 370 g ) (With Power Supply) <br> 17 oz (490 g) (Without Power Supply) |
| Mounting | DIN rail, 8M wide |
| Operating Environment | $32^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right) \mathrm{RH}$ : $95 \%$, noncondensing |
| Standards | UL: Listed 508 Industrial Control Equipment CSA 22.2 No. 14 Industrial Control Equipment FCC: Part 15, Class B Digital Device |

*For Diagram see technical section page 154

| Catalog Number | Description |
| :--- | :--- |
| SLC5504TRVFC | 4 Channel changeover relay unit 120 Vac, with power supply |
| SLC5504HRVFC | 4 Channel changeover relay unit 277 Vac , with power supply |

## Product Features

- Four (4) isolated independently operating relay channels
- Two (2) convenient built-in C-Bus network connectors (RJ-45)
- Non-volatile memory stores operating status for recovery from power outage
- LED Indicators show the status of the network and the unit
- Changeover Relays ratings: (120 Vac Max)
- 2 A Exhaust fans (shaded pole induction motors)
- 2 A Ceiling fans (split-phase induction motors)


## C-Bus

## Low Voltage Relay

The C-Bus 8 Channel Low Voltage Relay is used for switching loads such as irrigation solenoids, and LV air conditioning dampers. The Relay may also be used for switching LV pulse signal control loads into third party products.

The C-Bus 8 Channel Low Voltage Relay is a C-Bus output device that controls eight low voltage relay channels. The unit is powered from the C-Bus network and requires no other power source. The unit can be daisy chained or placed at the end of a C-Bus network.


## Technical Information

| C-Bus network <br> supply voltage | 15 to 36 Vdc @ 32 mA required for programming and operation |
| :--- | :--- |
| Maximum units per <br> C-Bus network | 50 |
| C-Bus connections | 2 wire, twisted pair |
| Warm up time | 5 seconds |
| Load rating per relay <br> channel | 2 A at 30 Vdc maximum or 30 Vac RMS suitable for resistive and <br> inductive loads |
| Contact type | Voltage free, SPDT (changeover) |
| Relay terminal <br> connections | C common, N/O normally open, N/C normally closed |
| Types of electrical <br> connection | Fixed load terminal for: $1 \times 1.0 \mathrm{~mm}{ }^{2}$ wire per tunnel (13 AWG), <br> Fixed aux (C-Bus) connectors for: $2 \times 1.5 \mathrm{~mm}{ }^{2}$ |
| Dimensions (W x H x D) | $8.66 \times 3.15 \times 1.50$ in. $(220 \times 80 \times 38$ mm) |
| Weight | 11.64 oz ( 330 g ) |

## Product Features

- Software-selectable C-Bus system clock
- Synchronize data communication on the C-Bus network
- Switch Low Voltage Loads
- Control third party products
- 2 Status Indicator Lights

| Catalog Number | Description |
| :--- | :--- |
| SLC5108RELVP | 8 Channel Low Voltage Relay |

## Occupancy Controller with C-Bus Connection Option

The Occupancy Controller from Schneider Electric has two lighting control relays, a motion sensor power supply, two auxiliary input switches, two timers (one per relay), and two relay default mode switches associated with each relay. The occupancy controller includes a C-Bus interface allowing for seamless integration into any C-Bus network. The occupancy controller provides a simple all-in-one solution for dimming, on-off operation, and powering of sensors. It operates over a wide range of input voltages ( $100-277 \mathrm{Vac}$ ) and is designed for above-ceiling installation. The occupancy controller is ideal for in-room occupancy control applications such as classrooms, open-office space, executive offices and conference rooms. The controller may be configured for C-Bus connectivity or in a standalone operation mode using the standalone jumper.


The 5752PP Series Occupancy Controller

## Technical Information

| Power supply voltage | 100-277 Vac |
| :---: | :---: |
| Power supply frequency | $50-60 \mathrm{~Hz}$ |
| Motion sensor power supply | Power output 280 mA ( 140 mA per detector connection) |
| Power supply rating | 24 Vdc SELV/Class 2 |
| Nominal C-Bus Voltage Requirements (if connected to C-Bus network) | Draws 15 - 36 Vdc SELV/Class 2 @ 25 mA from the C-Bus network, enabling configuration. |
| Max units per network | 80 |
| C-Bus AC Impedance | $80 \mathrm{~K} \Omega$ @ 1 KHz |
| Relay rating | Resistive: 16A at 277 Vac, Incandescent/Tungsten: 12A at 277 Vac Fluorescent (UL) Standard ballast: 10 A at 277 Vac (inductive 0.4 - 0.5 pf ) |
| Ballast control power supply (5752PP/2R/2D) | Analog: 1-10 Vdc 200 mA , DSI: 0 - 12 Vdc 200 mA , DALI: 0 - 12 Vdc 250 mA |
| Maximum ballasts per control (57PP/2R/2D) | 100 for DALI or DSI. 50 for 0-10 V analog |
| Connections (Screw-type Phoenix-style connectors) | Input: 14-12 AWG (2.5-4 mm²), Relay output: 14 - 12 AWG (2.5-4 mm²) Motion detector: 3-pin, 1 per relay present, Auxiliary input: 2-pin, 1 per relay present, C-Bus: 4-pin |
| Maximum operating temp. | $122^{\circ} \mathrm{F}\left(50^{\circ} \mathrm{C}\right)$ approved for use in a plenum |
| Operating humidity | 10 to $90 \%$ RH (non-condensing) |
| Dimensions ( $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ ) | $8.0 \times 7.87 \times 2.36 \mathrm{in} .(203 \times 200 \times 60 \mathrm{~mm})$ |
| Standards (Title) | CSA C22.2 No. 205 (Signal Equipment), UL916 (Energy Management Equipment) FCC Part 15 (Class B Digital Device for Home or Office Use) |

*For Diagram see technical section page 26

| Catalog <br> Number | Description |
| :--- | :--- |
| $5752 P P / 2 R$ | Occupancy Controller with 2 relays rated at 16 amps each |
| $5752 P P / 2 R / 2 D$ | Occupancy Controller with 2 relays rated at 16 amps each and 2 ballast control outputs: DSI, DALI, or 0-10 $\mathrm{V}^{\star}$ |

*Check with your local C-Bus or Schneider Electric sales representative for availability of units that can control electronic ballasts.

## Compatible Sensors

| Sensor | Description |  | Sensor | Description |
| :--- | :--- | :--- | :--- | :--- |
| SLSCPS1000 | Ceiling mount PIR motion sensor, <br> $360^{\circ}$ detection pattern, isolated relay |  | SLSCDS800 | Ceiling mount Dual-technology <br> (PIR and Ultrasonic motion sensor, <br> $180^{\circ}$ detection pattern, isolated relay |
| SLSCUS2000 | Ceiling mount Ultrasonic motion sensor, <br> $360^{\circ}$ detection pattern, isolated relay |  | SLSWPS1500 | Wall mount PIR motion sensor, <br> $110^{\circ}$ detection pattern, isolated relay |
| SLSCDS2000 | Ceiling mount Dual-technology <br> (PIR and Ultrasonic) motion sensor, <br> $360^{\circ}$ detection pattern, isolated relay | SLSWUS1500 | Wall mount Ultrasonic motion sensor, <br> isolated relay |  |
| SLSCDU800 | Ceiling mount Ultrasonic motion sensor, <br> $180^{\circ}$ detection pattern, isolated relay | SLSWDS1500 | Wall mount Dual-technology; PIR and <br> ultrasonic motion |  |

## C-Bus

## Area Lighting Panels

The C-Bus Area Lighting Panels are ideally suited to meet lighting control energy code requirements in classrooms, offices and other small spaces. These devices provide the ability to integrate keypads, occupancy sensing, light level detection, and switching without the mess of complex control wiring. A simple CAT- 5 cable is all that is required to connect sensors and keypads.

Area Lighting Panels can operate as independent stand-alone islands or as part of an entire facility wide lighting control system. Enclosures can easily be mounted in electrical closets or in ceiling spaces. They include all necessary connections and are UL Listed. Area Lighting Panels can also be used in conjunction with


8 channel 20A Relay Area Lighting Panel Powerlink panels.

Area Lighting Panels can be used for on/off switching, stepped dimming or continuous dimming applications. All relays feature rugged 20A rated contacts for switching electronic ballast loads. Models with continuous dimming capabilities are rated for either NEC Class 1 or Class 2 wiring.

## Technical Information

| Rated Voltage | 120 V and $277 \mathrm{~V} \mathrm{50/60} \mathrm{~Hz}$ |
| :--- | :--- |
| Number of Units <br> per Network | Use the C-Bus calculator, a software utility to determine total network current load or Toolkit software |
| Electrical isolation | 3.5 kV RMS from C-Bus to the line |
| Relays | 20 A |
| Short Circuit <br> Current Rating | $65 \mathrm{kA}(120 \mathrm{~V}), 14 \mathrm{kA}(277 \mathrm{~V})$ |
| C-Bus Connections | RJ45 |
| Dimensions | $\mathbf{1 2 M}$ Enclosure 12.78 in. $\times 9.09$ in. $\times 4.0$ in. <br> 24M Enclosure 14.50 in. $\times 14.94$ in. $\times 4.0$ in. <br> Standards UL: Listed 508 A, FCC part 15.101, Class B Device <br> EN61000-4-2 Immunity to ESD |


| Catalog Number | Enclosure | Description |
| :---: | :---: | :---: |
| 4 Channel 20A Relay Models |  |  |
| SLCZ042000T | 12M | 4 Channel 20 A Relay @ 120 V with power supply* |
| SLCZ042000H | 12M | 4 Channel 20 A Relay @ 277 V with power supply* |
| SLCZ042000TP | 12M | 4 Channel 20 A Relay @ 120 V without power supply |
| SLCZ042000HP | 12M | 4 Channel 20 A Relay @ 277V without power supply |
| 8 Channel 20A Relay Models |  |  |
| SLCZ082000T | 24M | 8 Channel 20 A Relay @ 120 V with power supply* |
| SLCZ082000H | 24M | 8 Channel 20 A Relay @ 277 V with power supply* |
| SLCZ082000TP | 24M | 8 Channel 20 A Relay @ 120 V without power supply |
| SLCZ082000HP | 24M | 8 Channel 20 A Relay @ 277 V without power supply |
| 4 Channel 20A Relay Models with 0-10V Output Units |  |  |
| SLCZ04204AT | 24M | 4 Channel 20 A Relay @ 120 V with power supply and 4 Channel 0-10 V Output Unit* |
| SLCZ04204AH | 24M | 4 Channel 20 A Relay @ 277 V with power supply and 4 Channel 0-10 V Output Unit* |
| SLCZ04204ATP | 24M | 4 Channel 20 A Relay @ 120 V without power supply and 4 Channel 0-10 V Output Unit |
| SLCZ04204AHP | 24M | 4 Channel 20 A Relay @ 277 V without power supply and 4 Channel 0-10 V Output Unit |
| 4 Channel Phase Angle Dimmer Models |  |  |
| SLCZ00004DT | 12M | 4 Channel Phase Angle Dimmer @ 120 V with power supply |
| SLCZ00004DTP | 12M | 4 Channel Phase Angle Dimmer @ 120 V without power supply |
| 4 Channel 20A Relay Models with Phase Angle Dimmer Units |  |  |
| SLCZ04204DT | 24M | 4 Channel 20 A Relay @ 120 V with power supply and 4 channel phase angle dimmer unit |
| SLCZ04204DTP | 24M | 4 Channel 20 A Relay @ 120 V without power supply and 4 channel phase angle dimmer unit |

[^4]
## Product Features

- Relay models: Four or eight relay outputs, rated 20 A
- 0-10 V outputs for control of $0-10 \mathrm{~V}$ dimmable fluorescent ballast (suitable for use with MARK $7^{\circledR}$, Sylvania Quicktronic ${ }^{\oplus}$, and Universal SuperDim ${ }^{\text {® }}$ )
- Integral neutral and ground bar terminal strips
- Plenum-rated for ceiling applications
- Bypass mode to facilitate quick start up
- Meets NEC Article 409
- UL Listed 508A, SCCR current ratings: 65 kA ( 120 V ), $14 \mathrm{kA}(277 \mathrm{~V})$
- Surface Mount NEMA 1 Enclosure


## C-Bus

## 8M/12M Enclosures

The C-Bus Enclosures provide a housing for various C-Bus DIN-mounted devices. The 8 M and 12 M enclosures are specifically designed for distributed applications that require physical proximity between DIN units and keypads, sensors or controlled loads.

The 8M enclosure consists of a box with a cover and a DIN rail for mounting one 8 M or two 4M units. The enclosure also has provisions for mounting neutral and ground bars.

The 12M enclosure consists of a box with a cover and a DIN rail for mounting three 4M C-Bus units, one 8M unit plus one 4M unit or one 12M unit. The enclosure also has factory mounted neutral and ground bars.


## Technical Information

| Type | NEMA 1 |
| :---: | :---: |
| DIN Module Capacity | 8M: One 8M or two 4M C-Bus units 12M: One 12M, one 8 M + one 4 M or three $4 \mathrm{M} \mathrm{C-Bus} \mathrm{units}$ |
| Dimensions | 8M: 12.57 in . (L) $\times 8.88 \mathrm{in}$. (W) $\times 3.8 \mathrm{in}$. (D) [ 319 mm (L) $\times 226 \mathrm{~mm}(\mathrm{~W}) \times 97 \mathrm{~mm}$ (D)] 12M: 12.78 in . (W) $\times 9.09 \mathrm{in}$. (T) $\times 4.0 \mathrm{in}$. (D) [ 325 mm (L) $\times 231 \mathrm{~mm}$ (W) $\times 102 \mathrm{~mm}$ (D)] |
| Mounting | DIN rail |
| Weight | 8M: $8.4 \mathrm{lb}(3.81 \mathrm{~kg})$ <br> 12M: $11.7 \mathrm{lb}(5.3 \mathrm{~kg})$ |
| Standards | UL Standard 50 Enclosures for electrical equipment |

*For Diagram see technical section page 155

| Catalog Number | Description |
| :--- | :--- |
| SLC8M | 8 D DIN Enclosure $\mathbf{4}$ |
| SLC12MSG | 12M DIN Enclosure $\star$ |
|  |  |
| Accessories | Description |
| PK7GTA | Ground/Neutral Bar |
| PKGTAB | Neutral Insulator Kit |
| SLC4CSF8 | Filler Plate, 4M |
| PK7GTA | Ground/Neutral Bar |
| PKGTAB | Neutral Insulator Kit |

- Includes one ground bar, one filler plate, cable ties and mounts for wire management.
$\star$ Includes one DIN rail, one ground bar, and one insulated neutral terminal bar pre installed on the mounting pan.
Also included are 2 ft . of flexible, Class 2 barrier, four pan mounting screws, four cover mounting screws, and two DIN rail stops.
- Additional terminal bar and insulator for devices that require neutral connection points for loads, such as a relay unit.

Note: The C-Bus 8M Enclosure will accept one additional terminator bar (PK7GTA) intended for load neutral connections. This is to be used when the C-Bus unit mounted inside requires neutral connection points for loads, i.e. a relay unit. Use in conjunction with a Neutral Insulator Kit (PKGTAB)

## C-Bus

## 24M Enclosure

The C-Bus Enclosures provide a housing for various C-Bus DIN-mounted devices. The 24 M enclosure is specifically designed for distributed applications that require physical proximity between DIN units and keypads, sensors or controlled loads.

Suitable for surface mounting, the 24M enclosure consists of a box with a hinged door and two rows for mounting C-Bus DIN-mounted units. Each row can hold one 12 M unit, one 8 M unit plus one 4 M unit, or three 4 M units. The enclosure also has provisions for additional neutral and ground bars.


## Technical Information

| 24M Enclosure |  |
| :--- | :--- |
| Type | NEMA 1 |
| DIN Module Capacity | Two rows for mounting C-Bus DIN-mounted units. Each row can hold one 12M unit, one 8M unit plus <br> one 4M unit, or three 4M units |
| Dimensions | $14.50 \mathrm{in} .(\mathrm{W}) \times 14.94 \mathrm{in} .(\mathrm{T}) \times 4.0 \mathrm{in} .(\mathrm{D})[368 \mathrm{~mm} \mathrm{(L)} \times 379 \mathrm{~mm} \mathrm{(W)} \mathrm{\times 102} \mathrm{mm(D)]}$ |
| Mounting | DIN rail |
| Standard | UL Standard 50 Enclosures for electrical equipment |
| Weight | $18.9 \mathrm{lb}(8.6 \mathrm{~kg})$ |

*For Diagram see technical section page 156

| Catalog Number | Description |
| :--- | :--- |
| SLC24MSG | 24 DIN Enclosure $\star$ |
|  |  |
| Accessories | Description |
| PK7GTA | Ground/Neutral Bar |
| PKGTAB | Neutral Insulator Kit |

$\star$ The enclosure comes with two DIN rails, two ground bars, and two insulated neutral terminal bars pre-installed on the mounting pan. Also included are 2 ft. of flexible, Class 2 barrier, four pan mounting screws, and four door mounting screws, and four DIN rail stops.

- Additional terminal bar and insulator for devices that require neutral connection points for loads, such as a relay unit.

Note: The C-Bus 24M Enclosure will accept one additional terminator bar (PK7GTA) intended for load neutral connections. This is to be used when the C-Bus unit mounted inside requires neutral connection points for loads, i.e. a relay unit. Use in conjunction with a Neutral Insulator Kit (PKGTAB)

## Product Features

- Surface-mount NEMA 1 enclosure
- Welded sheet steel with knockouts
- Gray baked enamel, electrodeposited over cleaned, phosphatized steel
- Triple-lead cover screws for fast installation of cover
- Hinged trim for easy access
- DIN rail, suitable for mounting C-Bus DIN-mounted C-Bus units. Each row can hold one 12M unit, one 8 M unit plus one 4 M unit, or three 4M units.
- UL Listed


## C-Bus

 36MS EnclosuresThe C-Bus Enclosures provide a multi-purpose means for housing various C-Bus DIN-mounted devices. Suitable for flush or surface mounting, the enclosure consists of a mounting, pan assembly, and a cover assembly. The cabinet can be ordered separately, allowing for its installation with the rough-in of field wiring. Optional accessories are available to meet the needs of particular installations.

The 36MS enclosure provides three rows for mounting DIN-mounted C-Bus units. Each row has the capacity to hold one 12 M unit, one 8 M unit with one 4 M unit, or three 4M units.

36MS Enclosures are specifically designed for conventional installation near the main breaker panel. They provide a simple means of installing DIN-mounted units with all of the necessary wiring, neutral bars, ground bars and other components included. Once installed, the enclosure system allows for easy system maintenance with the C-Bus units accessible.


36MS Enclosure

## Technical Information

| 36M Enclosure |  |
| :--- | :--- |
| Type | NEMA 1 |
| DIN Module Capacity | Three DIN rails, each with the capacity for one 12 M , one 8 M with one 4 M , or three 4M C-Bus DIN units |
| Dimensions with Cover | 40.6 in . (L) $\times 15.4 \mathrm{in}$. (W) $\times 3.9 \mathrm{in}$. (D) [1031 $\mathrm{mm}(\mathrm{L}) \times 392 \mathrm{~mm}(\mathrm{~W}) \times 99 \mathrm{~mm}(\mathrm{D})]$ |
| Standard | UL Standard 50 Enclosures for electrical equipment |
| Module Mounting | DIN rail |
| Total Weight | $57.7 \mathrm{lb}(26.17 \mathrm{~kg})$ |

*For Diagram see technical section page 156

| Catalog Number | Description |
| :--- | :--- |
| SLC36SC | Enclosure Cabinet |
| SLCMSFG | Flush Mount Gray |
| SLCMSSG | Surface Mount Gray |
| SLCMSFW | Flush Mount White |
| SLC2REC | Dual Receptacle Bracket |
|  |  |
| Accessories | Description |
| PK7GTA | Grnd/Neutral |
| PKGTAB | Neutral Isolator Kit |
| SLC4CSF8 | Filler Plate |

Product Features

- NEMA 1 enclosure suitable for flush or surface mounting
- Welded sheet steel with knockouts
- Gray baked enamel paint, electrodeposited over cleaned, phosphatized steel
- Triple-lead cover screws for fast installation of cover
- Three (3) DIN rails, each suitable for mounting C-Bus DIN units in one of the following configurations:
" One (1) 12M unit
" One (1) 8M module with one (1) 4 M unit
» Three (3) 4M units


## C-Bus

## 60M Enclosures

The C-Bus Enclosures provide a multi-purpose means for housing various C-Bus DIN-mounted devices. Suitable for flush or surface mounting, the enclosure consists of a cabinet, a mounting pan assembly, and a cover assembly. The cabinet can be ordered separately, allowing for its installation with the rough-in of field wiring. Options are available to meet the needs of particular installations.

The 60M enclosure provides five rows for mounting DIN-mounted C-Bus units. Each row has the capacity to hold one 12 M unit, one 8 M unit with one 4 M unit or three 4M units.

Schneider Electric 60M Enclosures are specifically designed for conventional installation near the main breaker panel. They provide a simple means of installing DIN-mounted units with all of the necessary wiring, neutral bar, barriers and other components included. Once installed, the enclosure system allows for easy system maintenance with the C-Bus units accessible.


60M Enclosure

## Technical Information

| 60M Enclosure |  |
| :---: | :---: |
| Type | NEMA Type 1 |
| DIN Module Capacity | Five DIN rails, each with the capacity for one 12M, one 8 M with one 4M, or three 4M C-Bus DIN units |
| Dimensions with Cover (flush mount) | 40.6 in. (L) $\times 15.4 \mathrm{in}$. (W) $\times 3.9 \mathrm{in}$. (D) [1031 mm (L) $\times 392 \mathrm{~mm}(\mathrm{~W}) \times 99 \mathrm{~mm}$ (D)] |
| Dimensions with Cover (surface mount) | 39.4 in. (L) $\times 14.2 \mathrm{in}$. (W) $\times 3.9 \mathrm{in}$. (D) [1000 mm (L) $\times 360 \mathrm{~mm}(\mathrm{~W}) \times 99 \mathrm{~mm}$ (D)] |
| Dimensions of Enclosure Cabinet | 39.4 in. (L) $\times 14.2 \mathrm{in}$. (W) $\times 3.69 \mathrm{in}$. (D) [1000 mm (L) $\times 360 \mathrm{~mm}(\mathrm{~W}) \times 99.8 \mathrm{~mm}$ (D)] |
| Standard | UL Standard 50 Enclosures for electrical equipment |
| Module Mounting | DIN rail |
| Total Weight | $57.7 \mathrm{lb}(26.17 \mathrm{~kg})$ |

*For Diagram see technical section page 157

| Catalog Number | Description |
| :--- | :--- |
| SLC36C | Enclosure Cabinet, 40 in. |
| SLC60MFG | Mounting pan with gray flush-mount cover |
| SLC60MSG | Mounting pan with gray surface-mount cover |
| SLC60MFW | Mounting pan with white flush-mount cover |
| Accessories | Description |
| SDM4AC | Two duplex power receptacles |
| PK4FL | Door latch, locking |
| SLC4CSF8 | Filler plate, 4M |

## Product Features

- NEMA Type 1 enclosure suitable for flush or surface mounting
- Welded sheet steel with knockouts
- ANSI Gray \#49 baked enamel paint, electrodeposited over cleaned, phosphatized steel
- Triple-lead cover screws for fast installation of cover
- UL listed, 600V rated Class 2 barrier included
- (3) pre-installed 23 position ground bars and (5) 12 position isolated neutral assemblies included
- Five DIN rails, each suitable for mounting C-Bus DIN units in one of the following configurations:
» One 12M unit
» One 8M unit with one
(1) 4 M unit
» Three 4M units
- UL Listed


## C-Bus

## Eight Button Remote Controllers

The C-Bus Eight-button Infrared (IR) Remote Control provides hand held remote control operation of lighting and other loads. Designed to work in conjunction with C-Bus devices containing IR receivers, this convenient remote control can switch, dim and control lighting scenes.

C-Bus Eight-button Remote Controller controls multiple input units as well as separately configured units.
This versatile remote control has a range of up to 49 feet ( 15 meters) and is easily configured by programming the IR receiving device in the C-Bus Toolkit software.


8 Button Remote Controls

Product Features

- Eight-button options
- Wall mount storage holder included with each remote control
- Removeable front cover for label insertion (labels included)
- (2) AAA batteries included

Distributed
Intelligence

- Compatible with C-Bus IR Input devices


## IR Accessories

## IR TUBE TARGET

Infra-red IR target designed to receive IR commands from Infra-red remote controls. Simple in-ceiling mounting. Includes phoenix connector and 2 meters of wire. Comes with optional clear lens.


## IR Shelf Mount Target

Infra-red IR target designed to receive IR commands from Infra-red remote controls. Simply set unit on shelf for easy IR command access. Includes phoenix connector and 2 meters of wire.


## IR Flat Target

Infra-red IR target designed to receive IR commands from Infra-red remote controls. Designed to mount in diffusers and small areas to mask appearance. Includes phoenix connector and 2 meters of wire.


## IR Emitter Leads

IR Leads plug into the C-Bus Multi room audio matrix switcher or C-Bus Nirts, and emit IR codes to the third party devices. Single and dual emitter leads available. Includes transparent adhesive sticker for application.


## NIRT

The C-Bus NIRT is a wall mounted IR transmitter, that is designed to work with the C-Bus control system. The NIRT transmits up to 2 channels of IR commands to control third party components, ie: DVD players, TV's, etc.


## IR Reader

The C-Bus IR Reader is a programming tool that is used to learn 3rd party remote control IR commands. Using Circa software (free download) plug IR Reader into a PC via USB port and send remote control signal capture IR Code.


| Catalog Number | Description |
| :---: | :---: |
| SLC8050TT | IR Tube Target |
| SLC8050ST | IR Shelf Mount Target |
| SLC8050FT | IR Flat Target |
| SLC8050LD | IR Emitter Leads- Single |
| SLC80502LD | IR Emitter Leads- Dual |
| SLC5034NIRT | NIRT |
| SLC5100RP | IR Reader |

## C-Bus Software Schedule Plus

The C-Bus Schedule Plus Software provides a powerful and simple to use interface to a C-Bus control system. Schedule Plus provides control and monitoring of a commercial or industrial C-Bus system from a PC running the Microsoft Windows operating system. Access is obtained from a local PC or remotely via an Internet connection with a standard Web Browser.

Schedule Plus displays graphical items on user pages with simple Menu and Tab based options. Graphic items can be programmed to perform C-Bus functions when pressed. Examples of the type of items that can appear on Schedule Plus pages include buttons, sliders, indicators, real-time clocks JPEG Images and Bitmap Images. These can be placed and sized as a user requires and can be displayed in full color. Schedule Plus also reports the state of the C-Bus group addresses on a network in real-time, with group addresses represented by text or icons that change condition depending on status. Custom icons can be generated to represent the various control states; alternatively icons from the icon library provided with the package can be used.

As well as manual control and monitoring of a C-Bus system, Schedule Plus can also be used to create and edit complete C-Bus scenes and initiate real-time based schedules of events. The software supports a project editing mode for customizing the user interface and an operation mode, where clicking components on the screen will execute the programmed actions. Enhanced scheduling includes support for monitoring load run times, load power and energy consumed.

## Technical Information

| Platform | Windows 95, 98, 2000, NT, ME, Vista and XP |  |  |
| :--- | :--- | :---: | :---: |
| Server Technology | C-Bus C-Gate |  |  |
| Connections | Ethernet, RS-232 |  |  |
| Graphical Objects | Text, buttons, sliders, shapes, images, real time clock, C-Bus timer, <br> percentage indicator, light level, temperature, C-Bus network voltage |  |  |
| Component Properties | C-Bus network parameters, position, size, font style and color, text and <br> image alignments, borders, stroke, background color/shading |  |  |
| Graphical Associations | C-Bus command (on/off/ramp), scene activation, scene activation via <br> C-Bus scene controllers, page links, back one page, operation over <br> remote applications, exit simulation page |  |  |
| Scheduled Events | Create, display edit and print. Daily, weekly, weekdays, weekends, <br> monthly and once off |  |  |
| Event Properties | Send C-Bus command (on/off/ramp \& ramp rate), send pulsed C-Bus <br> commands, set scenes, time of event, cycle of event |  |  |
| Password Protection | Yes |  |  |
| Modes | (2) Normal/Project Editing |  |  |
| Project Summary | Yes |  |  |
| Event Log | Yes |  |  |
| Page Templates | Yes (included) |  |  |
| Image Library | Yes (included) |  |  |
| Sound | .WAV file capable |  |  |
|  | Catalog Number Description <br> SLC5000SDSP24 Schedule Plus license key for 2 networks <br> SLC5000SDSP104 Schedule Plus license key for 10 networks <br> SLC5000SDSPU4 Schedule Plus license key for unlimited networks <br> SLC5000SDSP24 Schedule Plus installer Key*Sche |  |  |

* Installer key allows installers to create/commission projects using SchedulePlus software. This code key is time restricted and allows the software to operate in 'normal' mode for anywhere between 48 to 72 hours per use (the software then returns to evaluation/demo mode).
Note: The installer code key will also be compatible with future software releases


Schedule Plus Application Software USB


Example of a Schedule Plus Software Display Screen

## Product Features

- Supports Microsoft Platforms (Vista compatible)
- Supports 128 bit encrypted internet connectivity
- Automatic project error checking and reporting
- Connection to C-Bus via Ethernet or RS-232
- Two, ten and unlimited network software licence key options
- Fully functional logic engine
- Graphical components used to illustrate actions
- Scheduled events can be created, displayed, edited, printed and scheduled daily, weekly, weekdays, weekends and monthly
- Monitoring of load run times, load power and energy consumed
- Page templates and image library
- Event log
- Two modes, Normal Operation or Project Editing Modes
- Individual pages can be password protected
- Application support for HVAC and Security



## Saturn <br> Keypads



Front view of keypad, including external height and width measurements of case


Side view of keypad, including height and depth requirements for insertion into wall


Top view of keypad showing width

## Saturn Keypads

 with Dynamic Labelling Technology

Front and side views of the Saturn DLT keypad illustrate its length and width and the depth the case extends into and out of a wall

## Neo Decorator

## Keypads



Front view of keypad, including external height and width measurements of Faceplate


Side view of keypad, including height and depth requirements for insertion into wall


## Color <br> Touch Screen



Front view of Color Touch Screen


## Spectrum

## Touch Screen



Front view of Spectrum Touch Screen
Side view of Spectrum
Top view of Spectrum Touch Screen Touch Screen

Spectrum
Desktop Touch Screen


## Wiser

Home Controller


## Ethernet Network Interface



View of the Ethernet Network Interface showing width


View of the Ethernet Network Interface showing height and depth

## PC Interface



Front view of the PC


Side view of the PC Interface showing height and depth

## USB Interface



Front view of the PC Interface showing width


Side view of the PC Interface showing height and depth

## Network Bridge



Front view of the Network Bridge showing width


Side view of Network Bridge showing height and depth

## Power Supply



Front view of a Power Supply showing width


Side view of a Power Supply showing depth and height

## Pascal Automation Controller



Front view of the Pascal Automation Controller


Side view of the Pascal Automation Controller

## General Input Unit



## Bus Coupler



Top view of Four-Channel Bus Coupler


Side view of the Four-Channel Bus Coupler

## Four-Channel Auxiliary Input Unit



Top view of Four-Channel Auxiliary Input Unit


Side view of Four-Channel Auxiliary Input Unit

## DIN Fan Controller



Front view of DIN Fan Controller


Side view of DIN Fan Controller

## Fan Controller Enclosure



Front view of Fan Controller Enclosure


Side view of Fan Controller Enclosure

## Indoor PIR Occupancy Sensor




Field of view from side of indoor occupancy sensor


Front view of indoor occupancy sensor

## $360^{\circ}$ PIR Occupancy and Multi-Sensor



Front view of C-Bus $360^{\circ}$ PIR Occupancy Sensor


Side view of C-Bus $360^{\circ}$ PIR Occupancy Sensor

Field of view from top and side for 360 PIR Occupancy Sensor mounted 8 ft . above floor

## Outdoor Motion Sensor



Field of view from top of Outdoor Motion Sensor


Side view of Outdoor Motion Sensor

## Light-Level Sensor



Front view of Light-Level Sensor


## Outdoor Light-Level Sensor



## Professional Series Dimmer



Front view including mounting centers


Top view

## Phase Angle Dimmer Unit



Front view of the Phase Angle Dimmer Unit


Side view of the Phase Angle Dimmer Unit

## 2 Channel DALI Gateway



Front view of DALI Gateway


Side view of DALI Gateway

## DMX One Way Gateway



Front view


Side view

## 4 Channel 0-10V Fluorescent Ballast Dimmer



Front view of the 0-10V Fluorescent Ballast Dimmer


Side view of the 0-10V Fluorescent Ballast Dimmer

## 20 Amp Relay Units



Front view of a C-Bus 4 Channel 20 Amp Relay with Power Supply


Side view of a C-Bus 4 Channel 20 Amp Relay

## Changeover Relay Units




Side view of a C-Bus Changeover Relay

## Low Voltage Relay 8 Channel



Front view of Low Voltage Relay 8 Channel


Top view of Low Voltage Relay 8 Channel

## 8M Enclosure



Front view of 8M Enclosure box showing height and width


Side view of 8M Enclosure box showing depth

## 12M Enclosure



Front view of 12M Enclosure box showing height and width


Side view of 12M Enclosure box showing depth

## 24M Enclosure



Front view of 24 M Enclosure box showing height and width


Side view of 24M Enclosure box showing depth

## 36MS Enclosure



Dimensions for the 36MS Enclosure Flush Mounted


Dimensions for the 36MS Enclosure Surface Mounted


## 60M Enclosure




## C-Bus

Eight Button Remote Controllers


## Schneider Electric USA

320 Tech Park Drive, Suite 100
La Vergne, TN, 37086
1-888-778-2733
www.schneider-electric.us


[^0]:    Sensor Wiring, Dual Circuit

[^1]:    *Switch Duty Rated
    **Not available in 480 V

[^2]:    *When ordering: "x" equals button configuration 2, 4, or 6 and " $y$ " equals color selection WE, BK, BR. CM, SS, PW

[^3]:    *For Diagram see technical section page 149

[^4]:    *For stand-alone applications order unit with power supply

