### STD

- The STD dimmers modulate incandescent, halogen, lighting brightness and motors for unit powers from 40 to 1000 W from one or more switch-on points.
- They can be controlled either with the local control push-button placed on front panel or with auxiliary push-buttons.
- They have soft-On/soft-Off, light level memory and minimum level setting features.
- They are available in 2 different types:
  - DIN type (STD400RC/RL-DIN, STD1000RL-DIN) supplied without digital inputs,
  - SAE type (STD400RC/RL-SAE, STD1000RL-SAE) supplied with 4 digital inputs.

### STD LED

- The STD LED dimmers switch and dim the lighting brightness of:
  - incandescent lamps, halogen lamps,
  - (conventional or with electronic transformer),
  - dimmable lamps: fluocompact and LED 230 V.
- The brightness is set via the push buttons connected to the dimmer.
- They have soft-On/soft-Off, light level memory and minimum level setting features.
- The STD LED+ could be used with a movement detector, a presence detector or a programmable time switch. It also provides a staircase function incl. pre-warning.

### SCU

- The SCU dimmers modulate fluorescent lighting brightness for unit powers from 40 to 1500 W from one or more switch-on points.
- They can be controlled either with the local control push-button placed on front panel or with auxiliary push-buttons.
- They have soft-On/soft-Off, light level memory and minimum level setting features.
- They are available in 2 different types:
  - DIN type (SCU10-DIN) supplied without digital inputs,
  - SAE type (SCU10-SAE) supplied with 4 digital inputs.
Selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>STD400RC/RL-DIN</th>
<th>STD400RC/RL-SAE</th>
<th>STD1000RL-DIN</th>
<th>STD1000RL-SAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>400 W</td>
<td>1000 W</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mounting

With SAE types, it is possible to control a maximum of 20 dimmers combining STD400RC/RL-SAE and STD1000RL-SAE, with only one push-button via the 4 digital inputs.

Wiring diagrams

Catalogue numbers

<table>
<thead>
<tr>
<th>CCTDD20001</th>
<th>CCTDD20002</th>
<th>CCTDD20003</th>
<th>CCTDD20004</th>
</tr>
</thead>
</table>

Technical specifications

- Voltage rating (Ue): 230 V AC ± 10 %, 50 Hz
- Control voltage: 230 V AC ± 10 %, 50 Hz
- Consumption: 0.8 VA
- Power loss: 3 W
- Local push-button: Short push for On/Off control, long push for dimming
- Auxiliary push-button input:
  - Short push for On/Off control, long push for dimming:
    - up to 25 parallel connected auxiliary push-buttons without indication lamps
    - up to 5 parallel connected auxiliary push-buttons with indication lamps
    - max wire length 50 m
- The minimum light level setting is adjustable
- Indication blue LED (built in the local push-button): Illuminates during the on-state. The LED is blinking in error mode
- Protection class: IP20
- Degree of protection:
- Operating temperature: 0°C to +40°C, 40°C to +70°C with -6 W/°C de-rating
- Storage temperature: 0°C to +60°C
- Width (module of 9 mm): 4 8 8
- Protections, fuses:
  - Electronic overload, overvoltage and over temperature protection
  - Single shot thermal fuse
- Standards: According to EN 60669-2-1

(1) Use of maximum 25 push-buttons without indication lamp and 5 push-buttons with indication lamp, connected in parallel.
(2) Use of maximum 25 push-buttons without indication lamp, connected in parallel, only for STD400RC/RL-SAE and STD1000RL-SAE.
### Selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>STD400RC/RL-DIN</th>
<th>STD1000RL-DIN</th>
<th>STD400RC/RL-SAE</th>
<th>STD1000RL-SAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>STD400LED</td>
<td>STD400LED+</td>
<td>STD400LED</td>
<td>STD400LED+</td>
</tr>
<tr>
<td>Value</td>
<td>400 W</td>
<td>400 W</td>
<td>400 W</td>
<td>400 W</td>
</tr>
</tbody>
</table>

### Wiring diagrams

#### STD400RC/RL-DIN

- **N**
- **L**

#### STD1000RL-DIN

- **N**
- **L**

#### STD400RC/RL-SAE

- **N**
- **L**

#### STD1000RL-SAE

- **N**
- **L**

### Mounting

With SAE types, it is possible to control a maximum of 20 dimmers combining STD400RC/RL-SAE and STD1000RL-SAE, with only one push-button via the 4 digital inputs.

#### Technical specifications

- **Voltage rating (Ue)**: 230 V AC ± 10 %, 50 Hz 230 V AC ± 10 %, -15 %, 50 Hz
- **Control voltage**: 8...230 V AC/DC
- **Consumption**: 0.8 VA 0.3 W
- **Power loss**: 3 W 0.2 W 0.2 W
- **Local push-button**: Short push for On/Off control, long push for dimming.
- **Auxiliary push-button input**: Short push for On/Off control, long push for dimming:
  - up to 25 parallel connected auxiliary push-buttons without indication lamps
  - max wire length 50 m
  - up to 5 parallel connected auxiliary push-buttons with indication lamps
  - max wire length 100 m
- **The minimum light level setting is adjustable**
- **Indication blue LED (built in the local push-button)**: Illuminates during the on-state. The LED is blinking in error mode.
- **Protection class**: II
- **Degree of protection**: IP20
- **Operating temperature**: 0°C to +40°C, 40°C to +70°C with -6 W /°C de-rating -30°C to +50°C
- **Storage temperature**: 0°C to +60°C -20°C to +70°C -20°C to +70°C
- **Width (module of 9 mm)**: 4 4 8 8 2
- **Protections, fuses**:
  - Electronic overload, overvoltage and over temperature protection
  - Single shot thermal fuse
- **Standards**:
  - According to EN 60669-2-1
  - According to CE, EMC 89/336/EEC and LVD 73/73/23/EEC

#### Notes

- **CCTDD20016**
- **CCTDD20017**

#### Additional information

- **Version : 2.0**
- **12/12/2014**
- **LSB02325EN**
### Selection table

<table>
<thead>
<tr>
<th>SCU10-DIN</th>
<th>SCU10-SAE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td><strong>Type</strong></td>
</tr>
<tr>
<td>1 - 10 V</td>
<td>1 - 10 V</td>
</tr>
</tbody>
</table>

### Wiring diagrams

![Wiring diagram for SCU10-DIN and SCU10-SAE](image)

### Mounting

With SAE types, it is possible to control a maximum of 20 dimmers combining STD400RC/RL-SAE, STD1000RL-SAE and SCU10-SCU with only one push-button via the 4 digital inputs.

### Catalogue numbers

- CCTDD20011
- CCTDD20012

### Technical specifications

- **Voltage rating (Ue)**: 230 V AC ± 10 %, 50 Hz
- **Consumption**: 0.8 VA
- **Power loss**: 3 W
- **Current sink for 1-10 V output**: 0.2 - 100 mA
- **Local push-button**: Short push for On/Off control, long push for dimming
- **Auxiliary push-button input**: Short push for On/Off control, long push for dimming:
  - up to 25 parallel connected auxiliary push-buttons without indication lamps
  - up to 5 parallel connected auxiliary push-buttons with indication lamps
  - max wire length 50 m
- **The minimum light level setting is adjustable**: 
- **Indication blue LED (built in the local push-button)**: Illuminates during the on-state. The LED is blinking in error mode
- **Degree of protection**: IP20
- **Operating temperature**: 0°C to +40°C, 40°C to +70°C with -6 W/°C de-rating
- **Storage temperature**: 0°C to +60°C
- **Width (module of 9 mm)**: 8
- **Protection, fuses**: Electronic overload, overvoltage and over temperature protection
- **Standards**:
  - According to EN 60669-2-1
  - According to CE, EMC 89/336/EEC and LVD 73/73/23/EEC

(1) Use of maximum 25 push-buttons without indication lamp and 5 push-buttons with indication lamp, connected in parallel.
(3) Use of maximum 25 push-buttons without indication lamp, connected in parallel, only for SCU10-SAE
**Specific technical data**

<table>
<thead>
<tr>
<th>SAE types</th>
<th>Input voltage</th>
<th>Input 1</th>
<th>Input 2</th>
<th>Input 3</th>
<th>Input 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>STD400RC/RL-SAE, STD1000RL-SAE and SCU10-SAE dimmers are supplied with 4 digital inputs</td>
<td>12-30 V AC/DC</td>
<td>On/Off and dimming up/down or only On and dimming up (depends on function mode)</td>
<td>Off and dimming down or only Off (depends on function mode)</td>
<td>Adjustable lighting level memory 1 (50 % default)</td>
<td>Adjustable lighting level memory 2 (100 % default)</td>
</tr>
</tbody>
</table>

Max wire length: 50 m

Up to 25 push-buttons per input. No push-button with indication lamp

STD400RC/RL-DIN and STD400RC/RL-SAE dimmers are power regulators designed for all dimmable load types. Dimmers have automatic load type detection and the load regulation method is adjusted to fit the load.

---

**Operation modes for SAE types**

- **STD400RC/RL-SAE, STD1000RL-SAE** and **SCU10-SAE** dimmers have 2 different operation modes (A and B) using auxiliary push-buttons connected on digital inputs (1, 2, 3 and 4 terminals).
- Modes A and B can be changed by pushing the digital inputs 3 and 4 simultaneously for 10 s. After the mode is changed the load and the LED start to blink as long as the inputs are pushed.
- In the mode A, the input 1 dims the lights on with a short push and up with a long push and turns lights off with a short push and dims the light down with a long push. The direction is changed every time the input 1 is released. The input 2 dims the lights always off.
- In the mode B, the input 1 dims lights only up with a long push and turns lights on with a short push. The input 2 dims the lights only down with a long push and turns lights off with a short push.
- Inputs 3 and 4 are for memory places for light levels. The light level is called with a short push and set into the memory with a long push of 3 s.

**Common technical data**

**Common operation mode for SAE & DIN types**

- The dimmer is turned On/Off by shortly pushing the front panel push-button. This push-button lights blue when the dimmer is On.
- The light level is controlled by keeping the front panel push-button pushed until wanted level has been reached.
- The direction of dimming (up/down) is changed every time the front panel push-button is released.
- The dimmer has memory function which stores the light level before Off-command. When the dimmer is turned back On, the light level is the same as it was before Off-command.
- Auxiliary push-buttons connected on terminal have the same functionality as the push-button on the front panel of the dimmer.
## STD400LED specific technical data

<table>
<thead>
<tr>
<th>Lamp</th>
<th>Function</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>STD400LED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STD400LED+</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dimmable compact fluorescent lamps (CFL)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Automatic load detection Start with 100 % Dimming down not possible till after 3 s</td>
<td>Automatic load detection Start with 100 % Dimming down not possible till after 3 s</td>
</tr>
<tr>
<td>2</td>
<td>No automatic load detection (always with phase section) Start with 50 % Dimming down not possible till after 2 s</td>
<td>No automatic load detection (always with phase section) Start with 50 % Dimming down not possible till after 2 s</td>
</tr>
<tr>
<td><strong>Prog 3</strong></td>
<td>Programming the minimum brightness</td>
<td>Programming of 3 light different scenes (with diode modules included): snooze, wake-up, dimming switch-on function</td>
</tr>
<tr>
<td><strong>Dimmable LED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>No automatic load (always with phase section) to used if dimming problems with the LEDs</td>
<td></td>
</tr>
<tr>
<td><strong>Standard:</strong> Incandescent, Halogen, Transformer, Dimmable LEDs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Prog 5</strong></td>
<td>Programming the minimum brightness</td>
<td>Programming minimum switch-on brightness Programming of 3 light different scenes (with diode modules included): snooze, wake-up, dimming switch-on function</td>
</tr>
<tr>
<td><strong>Prog 6</strong></td>
<td>Standard function: Adjustable switch-on brightness (preset 100 %) Light brightness dimming switch-on after 2 s</td>
<td>Comfort function: Adjustable switch-on brightness (preset 100 %) Light brightness dimming switch-on With snooze and wake-up functions Control 3 different light scenes</td>
</tr>
<tr>
<td><strong>Prog 7</strong></td>
<td>Dimmer is always on</td>
<td>Standard function: Adjustable switch-on brightness (preset 100 %) Light brightness dimming switch-on Control 3 different light scenes</td>
</tr>
<tr>
<td><strong>Prog 8</strong></td>
<td>2-push button function: (double switch or rocker button) with diode modules, to switch on/dim up or switch off/dim down</td>
<td></td>
</tr>
<tr>
<td><strong>Prog 9</strong></td>
<td>Time switch function: Time configurable with potentiometer from 1 s to 60 minutes with switch-off pre-warning by dimming down and long time function by long button press</td>
<td></td>
</tr>
<tr>
<td><strong>Prog 10</strong></td>
<td>Switch function: For presence and movement detector Control 3 different light scenes</td>
<td></td>
</tr>
</tbody>
</table>
**Connection**

<table>
<thead>
<tr>
<th>Type</th>
<th>Tightening torque</th>
<th>Copper cables</th>
<th>Flexible or with ferrule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STD and SCU (top connection)</strong></td>
<td>0.5 N.m</td>
<td>&lt;4 mm²</td>
<td>&lt;4 mm²</td>
</tr>
<tr>
<td><strong>STD and SCU (bottom connection)</strong></td>
<td>0.5 N.m</td>
<td>&lt;2.5 mm²</td>
<td>&lt;2.5 mm²</td>
</tr>
<tr>
<td><strong>STD400LED, STD400LED+</strong></td>
<td>0.5 N.m</td>
<td>&lt;2.5 mm²</td>
<td>&lt;2.5 mm²</td>
</tr>
</tbody>
</table>

**Load table**

- **STD400RC/RL-DIN, STD400RC/RL-SAE**
  - 230 V incandescent and halogen lamps: 40 - 400 W
  - Low voltage halogen lamps with electronic transformer: 40 - 400 W
  - Low voltage halogen lamps with conventional transformer: 40 - 400 W
  - Low voltage halogen lamps with toroidal transformer: 40 - 300 W
  - Motors (fans, ventilators...): 40 - 200 W

- **STD400LED, STD400LED+**
  - 230 V incandescent and halogen lamps: 0 - 400 W *
  - Low voltage halogen lamps with electronic transformer: 0 - 300 W
  - Low voltage halogen lamps with conventional transformer: 0 - 400 W *
  - Low voltage halogen lamps with toroidal transformer: 0 - 400 W *
  - Dimmable fluorescent lamps (CFL): 0 - 80 W
  - Dimmable LED lamps: 0 - 60 W

  * In the case of a load of >300 W keep an 8 mm ventilation distance to the right and left.

- **STD1000RL-DIN, STD1000RL-SAE**
  - 230 V incandescent and halogen lamps: 60 - 1000 W
  - Low voltage halogen lamps with conventional transformer: 60 - 1000 W
  - Motors (fans, ventilators...): 60 - 600 W

- **SCU10-DIN, SCU10-SAE**
  - Mono fluorescent tubes with electronic ballast (dia.26 mm): 50 x 18 W, 40 x 36 W, 25 x 58 W
  - Duo fluorescent tubes with electronic ballast (dia.26 mm): 40 x 18 W, 20 x 36 W, 12 x 58 W
  - Fluorescent lamps with electronic ballast: 50 max. up to 1500 W

**Weight (g)**

- **Dimmers**
  - STD400RC/RL-DIN: 80
  - STD400RC/RL-SAE: 90
  - STD1000RL-DIN: 120
  - STD1000RL-SAE, SCU10: 130
  - STD400LED: 65
  - STD400LED+: 70

**Dimensions (mm)**

- **STD400RC/RL**
  - 85 x 36

- **STD1000RL**
  - 85 x 36

- **SCU10**
  - 85 x 36

- **STD400LED, STD400LED+**
  - 85 x 36
## Dimmers

### STD and SCU range (cont.)
- **STD400RC/RL-DIN & SAE**
- **STD400LED, STD400LED+**
- **STD1000RL-DIN & SAE**
- **SCU10-DIN & SAE**

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### Evolutions

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<table>
<thead>
<tr>
<th>Indice</th>
<th>Date</th>
<th>Modification</th>
<th>Name</th>
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<tbody>
<tr>
<td>2.0</td>
<td>21/11/2014</td>
<td>Add STD400LED and STD400LED+</td>
<td>Sedoc</td>
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<td>1.2</td>
<td>21/11/2012</td>
<td>Load table correction</td>
<td>Schneider Electric</td>
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<td>04/05/2012</td>
<td>Change to Indesign CS5</td>
<td>Schneider Electric</td>
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<tr>
<td>1.0</td>
<td>30/03/2011</td>
<td>Creation</td>
<td>Sedoc</td>
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Version : 2.0 12/12/2014 LSB02325EN