## Image



## Connection data

| + | DC24V $[+]$ | Power supply DC24V $[+]$ |
| :--- | :--- | :--- |
| + | DC24V $[+]$ | Power supply DC24V $[+]$ |
| - | DC24V[-] | Power supply DC24V $[-]$ |
| - | DC24V $[-]$ | Power supply DC24V $[-]$ |
| A | RS485[A] | Communication bus RS485[A] |
| A | RS485[A] | Communication bus RS485[A] |
| B | RS485[B] | Communicationbus RS485[B] |
| B | RS485[B] | Communication bus RS485[B] |


| 01 | vcom | Cormonrelay output |
| :---: | :---: | :---: |
| 02 | vcom | Commonrelay utput |
| 03 | vcom | Commonrelay utuput |
| 04 | vCom | Cormonrelay utput |
| 05 | OUT_OP | Outputrelay 1 [Contactor deviceon] |
| 06 | NA | Notavalable |
| 07 | NA | Notavalable |
| 08 | NA | Notavaliable |
| 09 | NA | Notavaliable |
| 10 | NA | Notavalable |
| 11 | N_D1 | Input digital1 |
| 12 | NA | Notavaliable |
| 13 | NA | Notavalable |
| 14 | NA | Notavaliable |
| 15 | GND | GNDmasurements [IN-D1],[N_ D2] |
| 16 | NA | Notavailale |

## Commercial data

| Product code | 20801800 |
| :--- | :--- |
| Product description | Smartswitch31-5092b[00]_3 Supplementary lighting |
| Packingunit | 1 |
| Weight | $0.121[\mathrm{~kg}]$ |
| Customtariff number | 8537.10 .91 |
| Country of origin | NL_(Netherlands) |

Dimensions

| Width | $53.60[\mathrm{~mm}]$ |
| :--- | :--- |
| Height | $89.60[\mathrm{~mm}]$ |
| Depth | $81.00[\mathrm{~mm}]$ |

## Standards andregulations

| EMC | Conformance with EMC directive 2014/30/EU |
| :--- | :--- |
| RoHS | Conformance withRoHS directive 2011/65/EU |
| WEEE | Conformance with WEEE directive 2002/96/EC |

## Connection data, details

| + | DC24V[+] | Terminal power supply DC24V of Smartswitch, polartity [PLUS]. <br> The free [PLUS][ [+] terminal can be used to supply power to a conterminous Smartswitch. |
| :---: | :---: | :---: |
| + |  |  |
| - | DC24V[-] | Terminal power supply DC24V of Smartswitch, polarity [MIN]. <br> The free [MN][-] terminal can be used to supply power to a conterminous Smartswitch. |
| A | RS485[A] | Terminal RS485 communication bus, signal line [A]. |
| A |  |  |
| B | RS485[B] | Terminal RS485 communication bus, signal line [B]. |
| B |  |  |


| 01 | VCOM | TerminalP-contacts of relays. Connect desiredvoltage type that has to be switched; $\mathrm{DC} 24 \mathrm{~V}[+]$, or $\mathrm{AC} 24 \mathrm{~V}[\mathrm{P}]$. |
| :---: | :---: | :---: |
| 02 |  |  |
| 03 |  |  |
| 04 |  |  |



|  | 20801800DSH030 Smartswitch 31-5092b[00]_3 Supplementary lighting |  |  |  | Page initial date: | 01/04/2023 | Page | 1 |
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|  | URL: | http://www.Ridder.com | Project designed by: | MBL | Page revision date: |  | Page |  |
|  | Document number: | 20801800DSH030 | Project status: | [As Build] | Page revision: |  |  |  |

## Ambient conditions

| Degree of protection | $\mid \mathbb{P 2 0}$ |  |  |
| :--- | :--- | :--- | :---: |
| Ambient temperature (operation) | $-10 . .50\left[^{\circ} \mathrm{C}\right]$ | $14 . .122\left[{ }^{\circ} \mathrm{F}\right]$ |  |
| Ambient temperature (storage/transport) | $-20 . .50\left[^{\circ} \mathrm{C}\right]$ | $-4 . . .122\left[{ }^{\circ} \mathrm{F}\right]$ |  |
| Permissible humididy (operation) | $20 . . .85[\%]$ |  |  |
| Permissible humidity (storageltransport) | $20 . . .5[\%]$ |  |  |

## Terminal data

| Conductor cross section solidmin. | $0.2\left[\mathrm{~mm}^{2}\right]$ |
| :--- | :--- |
| Conductor cross section solidmax. | $2.5\left[\mathrm{~mm}^{2}\right]$ |
| Conductor cross section flexible min. | $0.2\left[\mathrm{~mm}^{2}\right]$ |
| Conductor cross section flexible max. | $2.5\left[\mathrm{~m}^{2}\right]$ |
| Conductor cross section AWGmin. | 24 |
| Conductor cross section AWG max. | 14 |

General
Mounting type DINrail mounting according to EN60715

Supply voltage

| Power supply | DC 24 V |
| :--- | :--- |
| Current consumptiontypically | $\leq 50[\mathrm{~mA}]$, at DC24V, at $25\left[{ }^{\circ} \mathrm{C}\right]$ |

## Datainterface

| Interface 1 | RS485 |  |
| :--- | :--- | :--- |
| Connectionmethod | Spring-cage connection |  |
| Transmissionmedium | 2-wire Twisted-Pair + signal ground |  |
| Transmissionlengthmax. | $1200[\mathrm{~m}]$ | 1 |
| Transmission speed | $115.2[\mathrm{kBit} / \mathrm{s}]$ |  |

Relay output

| Number of outputs | 1 |
| :--- | :--- |
| Contact configuration | Normally open contact |
| Switching voltage max. | $24[\mathrm{~V}], \mathrm{AC} / \mathrm{DC}$ |
| Switching current max. | $1[\mathrm{~A}]$, bij $24[\mathrm{~V}], \mathrm{AC} / \mathrm{DC}$ |
| Service life electrical | $10^{\wedge} 5$ operations |

## Notification

| Location | LED status | Status Smartswitch control |
| :---: | :---: | :---: |
| PCB [1] | Green continuously | Smartswitch connection with touchscreen controller is active. Smartswitch control is inactive. |
|  | Greenblinking | Smartswitch connection with touchscreen controller is active. Smartswitch control is active. Smartswitch control alarm status is inactive. |
|  | Red continuously | Smartswitch connection with touchscreen controller is inactive. Smartswitch control is inactive. |
|  | Redblinking | Smartswitch connection with touchscreen controller is active. Smartswitch control is active. Smartswitch control alarm status is active. |


| Location | LED status | Status bus communication |
| :--- | :---: | :--- |
| PCB[2] | Greenblinking | Smartswitchis receiving data over the bus $[\mathrm{xx]}$. |
|  | Red blinking | Smartswitch his transmitting data over the bus $[\mathrm{Tx}]$. |


| Location | LED status | Status device control |
| :---: | :---: | :---: |
| Rotary switch[1] | Green continuously | The control [on is surrently active. <br> The connected device is on. |

## Remarks

```
1 Transmissionlengthmax.
The transmissionlengthmax.(ie. Maximumlength of the RS485BUS-cable in the installation) of 1200 [m], only applies whena
suitable RS485 Bus-cabletype is utilized in the installation.
General specification for RS485BUS-cable:
- Suitable for bus sy semshaed on RS485,
- Twisted pair(s),
-Characteristic impedance 120[Ohm
Recommended cable types:
32002810Buskabel UNTRONICBUSLD 2x2x0.22 100[m]
32002811BuskabelUNTTRONCBUSLD 2\times2\times0.22300[m
32002812BuskabelUNTTRONIC BUSLD 2\times2\times0.22 500 [m]
32002820BuskabelUNITRONCBUSLD3\times2\times0.22 100[m]
```


## Schematic



