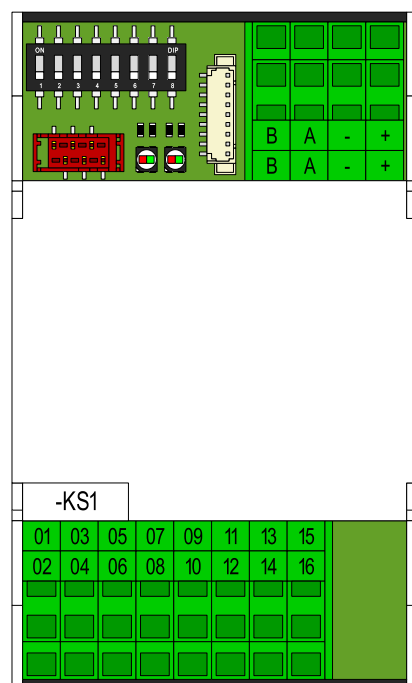


## Image



## 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]	Communication bus RS485[B]
B	RS485[B]	Communication bus RS485[B]

01	VCOM	Common relay outputs
02	VCOM	Common relay outputs
03	VCOM	Common relay outputs
04	VCOM	Common relay outputs
05	OUT_D5	Supply voltage polarity electro dialysis stack [+/-]
06	OUT_D1	Circulation pump drain water
07	OUT_D6	Supply voltage polarity electro dialysis stack [-/+]
08	OUT_D2	Circulation pump waste water
09	OUT_D7	Not available
10	OUT_D3	Dosing pump antiscaling solution
11	OUT_D8	Selection valves drain tank 1
12	OUT_D4	Dosing pump cleaning solution
13	GND	GND measurements [IN_D1], [IN_D2]
14	GND	GND measurements [IN_D1], [IN_D2]
15	IN_D2	Not available
16	IN_D1	Not available

## Commercial data

Product code	20801960
Product description	Smartswitch 49-5104b[00]_0 NoNa+ output module 2
Packing unit	1
Weight	0.122[kg]
Custom tariff number	8537.10.91
Country of origin	NL (Netherlands)

## Dimensions

Width	53.60 [mm]
Height	89.60 [mm]
Depth	62.20 [mm]

## Standards and regulations

EMC	Conformance with EMC directive 2014/30/EU
RoHS	Conformance with RoHS directive 2011/65/EU
WEEE	Conformance with WEEE directive 2002/96/EC

## Connection data, details

+	DC24V[+]	Terminal power supply DC24V of Smartswitch, polarity [PLUS]. The free [PLUS][+] terminal can be used to supply power to a continuous Smartswitch.
+		
-	DC24V[-]	Terminal power supply DC24V of Smartswitch, polarity [MIN]. The free [MIN][-] terminal can be used to supply power to a continuous 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	Terminal P-contacts of relays. Connect desired voltage type that has to be switched; DC24V[+], or AC24V[P].
02		
03		
04		

06	OUT_D1	Relay contact for the control of the circulation pump drain water. The relay contact switches what is provided on the terminal(s) [VCOM].
----	--------	--

08	OUT_D2	Relay contact for the control of the circulation pump waste water. The relay contact switches what is provided on the terminal(s) [VCOM].
----	--------	--

10	OUT_D3	Relay contact for the control of the dosing pump antiscaling solution. The relay contact switches what is provided on the terminal(s) [VCOM].
----	--------	--

12	OUT_D4	Relay contact for the control of the dosing pump cleaning solution. The relay contact switches what is provided on the terminal(s) [VCOM].
----	--------	---

05	OUT_D5	Relay contact for the control of the applied voltage to the electro dialysis stack, polarity [+/-]. The relay contact switches what is provided on the terminal(s) [VCOM].
----	--------	---

07	OUT_D6	Relay contact for the control of the applied voltage to the electro dialysis stack, polarity [-/+]. The relay contact switches what is provided on the terminal(s) [VCOM].
----	--------	---

11	OUT_D8	Relay contact for the control of the selection valves of drain tank 1. The relay contact switches what is provided on the terminal(s) [VCOM].
----	--------	--



Project file: 20801960DSH030 Smartswitch 49-5104b[00]\_0 NoNa+ output module 2

Page initial date: 01/04/2023

Page: 1

Project number: http://www.Ridder.com

Project initial date: 01/04/2023

Page designed by: MBL

of: 2

URL: http://www.Ridder.com

Project designed by: MBL

Page revision date:

Page index:

Document number: 20801960DSH030

Project status: [As Build]

Page revision:

### Ambient conditions

Degree of protection	IP20	
Ambient temperature (operation)	-10...50 [°C]	14...122 [°F]
Ambient temperature (storage/transport)	-20...50 [°C]	-4...122 [°F]
Permissible humidity (operation)	20...85 [%]	
Permissible humidity (storage/transport)	20...85 [%]	

### Terminal data

Conductor cross section solid min.	0.2 [mm²]
Conductor cross section solid max.	2.5 [mm²]
Conductor cross section flexible min.	0.2 [mm²]
Conductor cross section flexible max.	2.5 [mm²]
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14

### General

Mounting type	DIN rail mounting according to EN 60715
---------------	---

### Supply voltage

Power supply	DC24V
Current consumption typically	≤ 100 [mA], at DC24V, at 25 [°C]

### Data interface

Interface 1	RS485
Connection method	Spring-cage connection
Transmission medium	2-wire Twisted-Pair + signal ground
Transmission length max.	1200 [m] <b>1</b>
Transmission speed	115.2 [kBit/s]

### Relay output

Number of outputs	3
Contact configuration	Normally open contact
Switching voltage max.	24 [V], AC/DC
Switching current max.	1 [A], bij 24 [V], AC/DC
Service life electrical	10^5 operations

### Notification

Location	LED status	Status Smartswitch control
PCB [1]	Green continuously	Smartswitch connection with touchscreen controller is active. Smartswitch control is inactive.
	Green blinking	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.
	Red blinking	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]	Green blinking	Smartswitch is receiving data over the bus [Rx].
	Red blinking	Smartswitch is transmitting data over the bus [Tx].

### Remarks

<b>1</b>	<b>Transmission length max.</b> The transmission length max. (i.e. Maximum length of the RS485 BUS-cable in the installation) of 1200 [m], only applies when a suitable RS485 Bus-cable type is utilized in the installation.  General specification for RS485 BUS-cable: • Suitable for bus systems based on RS485, • Twisted pair(s), • Shielded, • Characteristic impedance 120 [Ohm].  Recommended cable types: 32002810 Buskabel UNITRONIC BUS LD 2x2x0.22 100 [m] 32002811 Buskabel UNITRONIC BUS LD 2x2x0.22 300 [m] 32002812 Buskabel UNITRONIC BUS LD 2x2x0.22 500 [m]  32002820 Buskabel UNITRONIC BUS LD 3x2x0.22 100 [m]
----------	--

### Schematic

