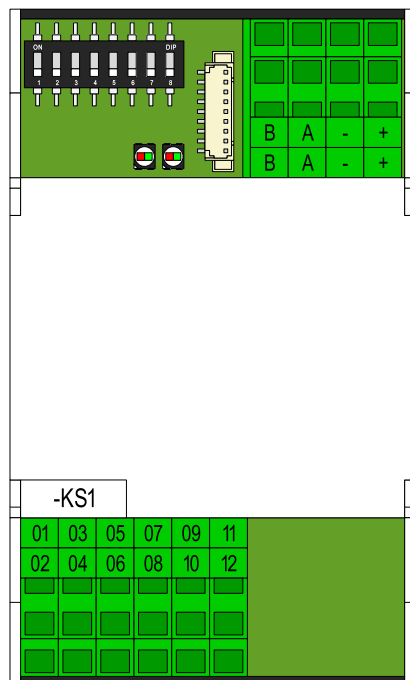


## Image



## Commercial data

Product code	20801910
Product description	Smartswitch 40-8192b[00]_0 Moisture content
Packing unit	1
Weight	0.093[kg]
Custom tariff number	8537.10.91
Country of origin	NL (Netherlands)

## Dimensions

Width	53.60 [mm]
Height	89.60 [mm]
Depth	81.00 [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

+	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	NA	Not available
02	NA	Not available
03	NA	Not available
04	NA	Not available
05	NA	Not available
06	NA	Not available
07	SDI DC12V[+]	SDI-12 sensor 2 power supply [ + ]
08	SDI DC12V[+]	SDI-12 sensor 1 power supply [ + ]
09	SDI DC12V[-]	SDI-12 sensor 2 power supply [ - ]
10	SDI DC12V[-]	SDI-12 sensor 1 power supply [ - ]
11	IN_SDI2	SDI-12 sensor 2 data signal
12	IN_SDI1	SDI-12 sensor 1 data signal

## 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		

08	SDI DC12V[+]	SDI-12 input for the signal of soil- slab moisture content sensor 1.
10	SDI DC12V[-]	
12	IN_SDI1	

07	SDI DC12V[+]	SDI-12 input for the signal of soil- slab moisture content sensor 2.
09	SDI DC12V[-]	
11	IN_SDI1	

### 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
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### Supply voltage

Power supply	DC24V
Current consumption typically	≤ 50 [mA], at DC24V, at 25 [°C]

### Data interface

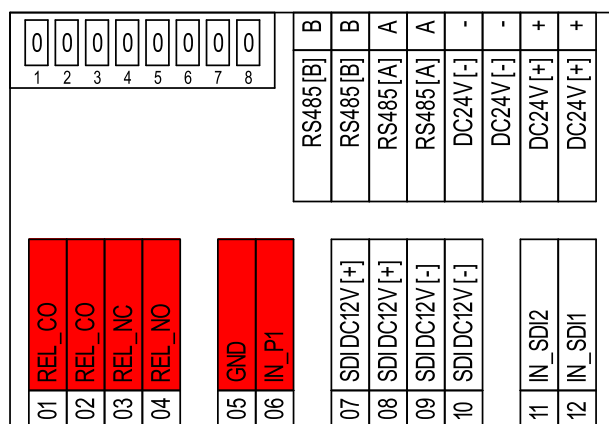
Interface 1	RS485
Connection method	Spring-cage connection
Transmission medium	2-wire Twisted-Pair + signal ground
Transmission length max.	1200 [m] <span style="background-color: yellow;">1</span>
Transmission speed	115.2 [kBit/s]

Interface 2	SDI-12
Connection method	Spring-cage connection
Transmission medium	3-wire 12 [V] + ground + data signal
Transmission length max.	200 [m]
Transmission speed	1200 baud

Interface 3	SDI-12
Connection method	Spring-cage connection
Transmission medium	3-wire 12 [V] + ground + data signal
Transmission length max.	200 [m]
Transmission speed	1200 baud

### Schematic

-KS2  
Smartswitch  
40-8192b[00]\_0



### 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].

### Soil moisture content sensor

Product code	31503331
Product description	HortiMaX-Go! Soil Moisture sensor (VWC,T,EC)
[08] - SDI DC12V [+]	Brown
[10] - SDI DC12V [-]	Shield
[12] - IN_SDI1	Orange

### Slab moisture content sensor

Product code	31503320
Product description	HortiMaX-Go! Slab Moisture sensor (VWC,T,EC)
[08] - SDI DC12V [+]	White
[10] - SDI DC12V [-]	Shield
[12] - IN_SDI1	Red

### Remarks

1	Transmission length max.
<p>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.</p> <p>General specification for RS485 BUS-cable:</p> <ul style="list-style-type: none"> <li>• Suitable for bus systems based on RS485,</li> <li>• Twisted pair(s),</li> <li>• Shielded,</li> <li>• Characteristic impedance 120 [Ohm].</li> </ul> <p>Recommended cable types:</p> <ul style="list-style-type: none"> <li>32002810 Buskabel UNITRONIC BUS LD 2x2x0.22 100 [m]</li> <li>32002811 Buskabel UNITRONIC BUS LD 2x2x0.22 300 [m]</li> <li>32002812 Buskabel UNITRONIC BUS LD 2x2x0.22 500 [m]</li> <li>32002820 Buskabel UNITRONIC BUS LD 3x2x0.22 100 [m]</li> </ul>	