

## 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	NA	Not available
02	NA	Not available
03	NA	Not available
04	NA	Not available
05	NA	Not available
06	NA	Not available
07	NA	Not available
08	NA	Not available
09	NA	Not available
10	NA	Not available
11	NA	Not available
12	NA	Not available
13	NA	Not available
14	NA	Not available
15	NA	Not available
16	NA	Not available

17	R_B2	Input temperature B2[high]
18	R_B1	Input temperature B1[high]
19	R_A2	Input temperature A2[low]
20	R_A1	Input temperature A1[low]
21	EC_A2	Input EC A2
22	EC_A1	Input EC A1
23	EC_B2	Input EC B2
24	EC_B1	Input EC B1

25	NA	Not available
26	NA	Not available
27	NA	Not available
28	NA	Not available

## Commercial data

Product code	20801980
Product description	Smartswitch 51-5102d[00]_00 EC measurement 2
Packing unit	1
Weight	0.166 [kg]
Custom tariff number	8537.10.91
Country of origin	NL (Netherlands)

## Dimensions

Width	107.60 [mm]
Height	89.60 [mm]
Depth	82.50 [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		

18	R_B1	Analog input for the signal of the temperature sensor of EC sensor 1.
20	R_A1	
22	EC_A1	Analog input for the signal of the conduction element of EC sensor 1.
24	EC_B1	

17	R_B2	Analog input for the signal of the temperature sensor of EC sensor 2.
19	R_A2	
21	EC_A2	Analog input for the signal of the conduction element of EC sensor 2.
23	EC_B2	

### 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	≤ 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]

### Conductivity input

Number of inputs	2
Measuring range	0.0...10.0 [mS]

### 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].

### EC sensor

Product code	21250255	
Product description	EC-Sensor 4K7 NTC FertiMix Go!	
[24]-EC_B1	[1]	Brown
[22]-EC_A1	[2]	White
[20]-R_A1	[3]	Blue
[18]-R_B1	[4]	Black

Product code	21250255	
Product description	EC-Sensor 4K7 NTC FertiMix Go!	
[23]-EC_B2	[1]	Brown
[21]-EC_A2	[2]	White
[19]-R_A2	[3]	Blue
[17]-R_B2	[4]	Black

### 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

