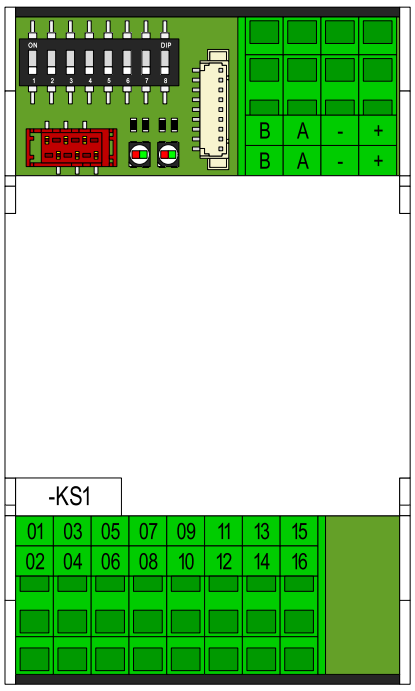
Image



Commercial data

Product code	20801920
Product description	Smartswitch 45-9225b[00]_0 NoNa+ input module 1
Packing unit	1
Weight	0.099 [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	IN_U1	Level switch clean water tank empty
02	GND	GND measurements [IN_D1], [IN_D2]
03	IN_U2	Level switch clean water tank full
04	GND	GND measurements [IN_D3], [IN_D4]
05	IN_U3	Level switch clean water tank alarm
06	GND	GND measurements [IN_D5], [IN_D6]
07	IN_U4	Level switch waste water tank empty
08	GND	GND measurements [IN_D7], [IN_D8]
09	IN_U5	Level switch waste water tank full
10	IN_P1	Flow sensor clean water
11	IN_U6	Level switch waste water tank alarm
12	GND	GND measurements [IN_P1]
13	IN_U7	Level switch antiscalent solution tank empty
14	IN_P2	Not available
15	IN_U8	Level switch cleaning solution tank empty
16	GND	GND measurements [IN_P2]

Connection data, details

+	DC24V [+]	Terminal power supply DC24V of Smartswitch, polartity [PLUS]. The free [PLUS] [+] terminal can be used to supply power to a conterminous Smartswitch.
+		
-	DC24V [-]	Terminal power supply DC24V of Smartswitch, polarity [MIN]. The free [MIN] [-] 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	IN_U1	Digital input for dry contact [NC], that when opened will cause a detection clean water tank empty in the control. When not used interconnect [01] and [02].
02		
03	IN_U2	Digital input for dry contact [NC], that when opened will cause a detection clean water tank full in the control. When not used interconnect [03] and [02].
02		
05	IN_U3	Digital input for dry contact [NC], that when opened will raise an clean water tank alarm in the control. When not used interconnect [05] and [04].
04		
07	IN_U4	Digital input for dry contact [NC], that when opened will cause a detection waste water tank empty in the control. When not used interconnect [07] and [04].
04		
09	IN_U5	Digital input for dry contact [NC], that when opened will cause a detection wate water tank full in the control. When not used interconnect [09] and [06].
06		
11	IN_U6	Digital input for dry contact [NC], that when opened will raise an waste water tank alarm in the control. When not used interconnect [11] and [06].
06		
13	IN_U7	Digital input for dry contact [NC], that when opened will cause a detection antiscaling solution tank empty in the control. When not used interconnect [13] and [08].
08		
15	IN_U8	Digital input for dry contact [NC], that when opened will cause a detection cleaning solution tank empty in the control. When not used interconnect [15] and [08].
08		

10	IN_P1	Pulse input for flow sensor that registers the amount of clean water that has passed.
12		

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 power

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]	1
Transmission speed	115.2 [kBit/s]	

Pulse input

Number of inputs	1
Measuring range	0.0…1000 [Hz]

Notefication

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].

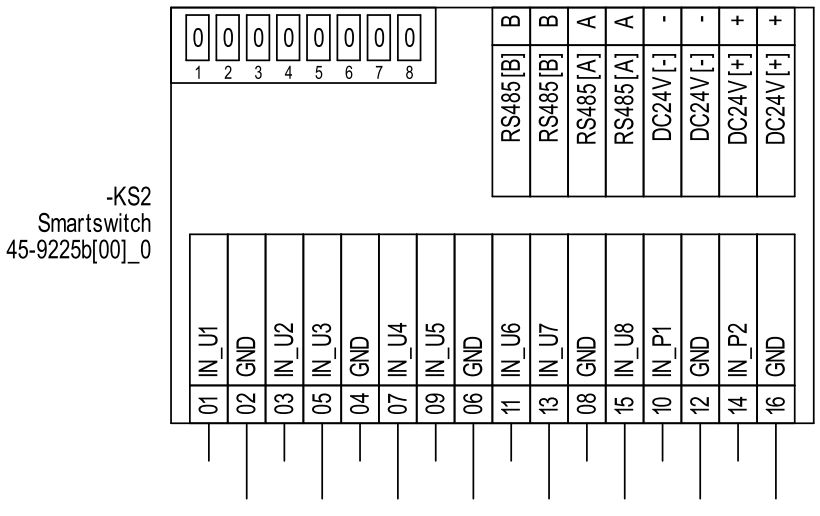
Flow sensor

Product code	04004000	
Product description	F15 flowmeter P51530-P0	
[05] - IN_P1	[1]	Rood
[14] - GND	[2]	Zwart

Remarks

1	Transmission length max.
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



RIDDER	Project file:	20801920DSH030 Smartswitch 45-9225b[00]_0 NoNa+ input module 1	Page initial date: 01/04/2023	Page: 2	
	Project number:	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: 20801920DSH030	Project status: [As Build]	Page revision:		