Image

-KS1

Commercial data

Product code	20801700
Product description	Smartswitch 23-5104b[00]_0 Irrigation valve
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

+	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	Output relais 5
06	OUT_D1	Output relais 1
07	OUT_D6	Output relais 6
08	OUT_D2	Output relais 2
09	OUT_D7	Output relais 7
10	OUT_D3	Output relais 3
11	OUT_D8	Output relais 8
12	OUT_D4	Output relais 4
13	GND	GND measurements [IN_D1], [IN_D2]
14	GND	GND measurements [IN_D1], [IN_D2]
15	IN_D2	Input digital 2
16	IN_D1	Input digital 1

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	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 switching the power stage of an irrigation valve. The relay contact switches what is provided on the terminal(s) [VCOM].

08	OUT_D2	Relay contact for switching the power stage of an irrigation valve. The relay contact switches what is provided on the terminal(s) [VCOM].

10	OUT_D3	Relay contact for switching the power stage of an irrigation valve. The relay contact switches what is provided on the terminal(s) [VCOM].

12	OUT_D4	Relay contact for switching the power stage of an irrigation valve. The relay contact switches what is provided on the terminal(s) [VCOM].

05	OUT_D5	Relay contact for switching the power stage of an irrigation valve. The relay contact switches what is provided on the terminal(s) [VCOM].

07	OUT_D6	Relay contact for switching the power stage of an irrigation valve. The relay contact switches what is provided on the terminal(s) [VCOM].

09	OUT_D7	Relay contact for switching the power stage of an irrigation valve. The relay contact switches what is provided on the terminal(s) [VCOM].

11	OUT_D8	Relay contact for switching the power stage of an irrigation valve. The relay contact switches what is provided on the terminal(s) [VCOM].

16	IN_D1	Digital input for dry contact [NO], that when closed will start a watersupply group. The watersupply group number of this start contact is determined when [scanning] the Smartswitch network.
13	GND	
14		

15	IN_D2	Digital input for dry contact [NO], that when closed will start a watersupply group. The watersupply group number of this start contact is determined when [scanning] the Smartswitch network.
13	GND	
14		

RIDDER

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]	1
Transmission speed	115.2 [kBit/s]	

Relay output

Number of outputs	8
Contact configuration	Normally open contact
Switching voltage max.	24 [V], AC/DC
Switching current max.	5 [A], at 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.

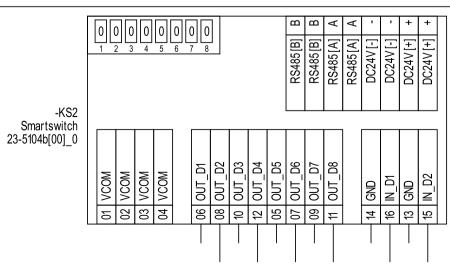| Location	LED status	Status bus communication
PCB [2]	Green blinking	Smartswitch is receiving data over the bus [Rx].
	Red blinking	Smartswitch is transmitting data over the bus [Tx].

Remarks

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