



2016

KNX Universal Interface 6-fold Manual



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2016-1-11

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Versions

Number	Date	Note
V1.0	2015.03.09	The first version

Notice

1. Please carefully read this manual before using the product
2. This product is used in indoor environment and installed in electrical control box
3. Please install this product in a dry and ventilated place
4. Before power on, please confirm the input voltage according to the manual; after power on,
please confirm the normal output voltage before connecting to the control bus
5. Please make sure the secure shell is in good condition, if the shell is damaged,
please stop using
to avoid accident
- 6.This product is NOT a toy, please make sure it is out of children's touch
- 7.Only be suitable for EIB/KNX system bus
- 8.Others:

The below sign indicates this product can't be dealt as ordinary family rubbish,in order to avoid the possible environment and human health harm caused by the electrical waste, this product must follow recovery processing.Please contact the local recycling department after this product is scrapped, to make sure it can go as the right waste processing procedure



1. Technical Data

Power supply	Operating voltage	21V~31V DC, made available by the bus
	Power Supply current	< 12mA
	Consumption	<360mW
Input/Output	Channel numbers	6 channel
	Input voltage/current	DC 20V/0.5mA
	output voltage/current	DC 3.3V/maximum 2mA
External connection	EIB/KNX bus	paired cable comply with KNX standard are required EIB/KNX bus connect terminal((diameter 0.8mm)
	Input/Output wiring	6 channel 10 wiring; length of wiring about 25cm, maximum length 10m
Operation and display interface	Programming button	Button distributes physical address,programming
	Programming Led	Red flashing LED indicates that the application layer of device is normal
Shell protection grade	IP20\Concealed cooling channel	EN60529
Safety class	II	EN61140
Insulated isolation	Over voltage	EN60664-1 III
	Power grid	EN60664-1 2
Temperature range	Operation	-5℃...+45℃
	Storage	-25℃...+55℃
	Transportation	-30℃...+70℃
Environmental Conditions	Humidity	Max.93%,moisture condensation should be excluded
Mechanical parameter	Volume	48mm*41.5mm*19 mm
	Weight	About 17g
	Installation	Inset 86 box or 80 box
Appearance	Gray-white, PVC panel	
Certification	KNX EN50090-1\2	
CE certified	Refer to appendix	
EMC index	Refer to appendix	

2 Overview Functions

This booklet provides all the details for SATION universal Interface.

KNX Universal Interface via KNX bus with other devices are installed into Electrical equipment for building control systems. KNX universal interface can put in 86 box or 80 box. Configuration is output/input . It is control corresponding operation.

Using ETS software to complete system debugging. Physical address assignment and parameter setting using ETS software(ETS 3V1.3 above) with VD3/VD4 file to completion.

Channels grouped function

- Dimming : The short keystroke performs the switching object “Dimming on/off”, The long keystroke performs the dimming object “Dimming” . Switches on/off at a falling/rising edge.
- Shutters:The short keystroke (Stop/Blinds Adjustment), The long keystroke(Shutter Down/up).
- Switch :edge control.

Channel unique function

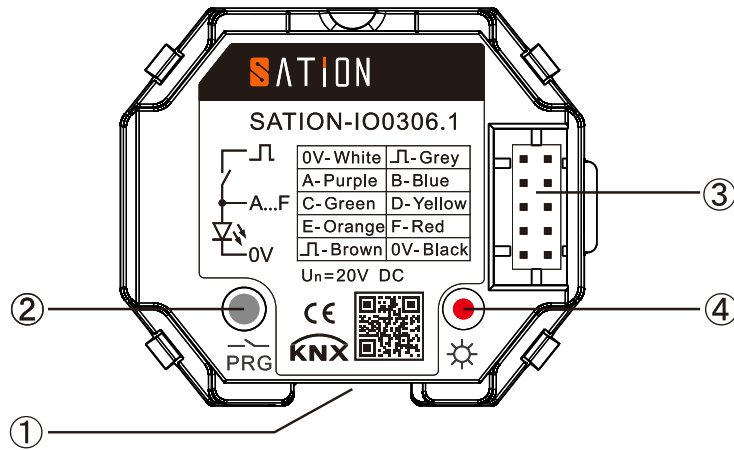
- Switch:edge control, short/long keystroke control,edge reversal.
- Scene:Saving function,select different scene.
- One Button Dimming: The long keystroke addresses the communication object “Dimming on/off”.
- One Button Shutter: The long keystroke performs up- and down- movement of the shutter. The short keystroke performs adjust the blinds and stops a running movement of the shutter.
- Counter: Count rising, Count falling, Count rising and falling.

The upper two models are support blocking object, object and/or logical operation ,as well as behavior of power up/ behavior of power down on the device.

LED output control.

3 Device Technology

3.1 Product appearance



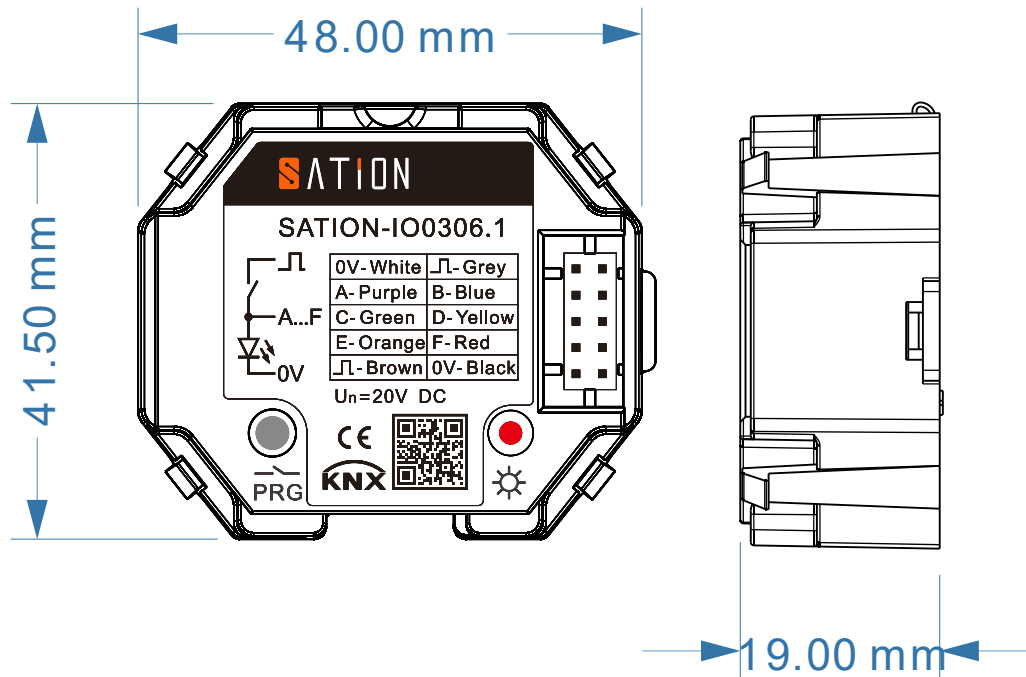
1 Bus-connection

2 Programming button

3 Connection for inputs & outputs

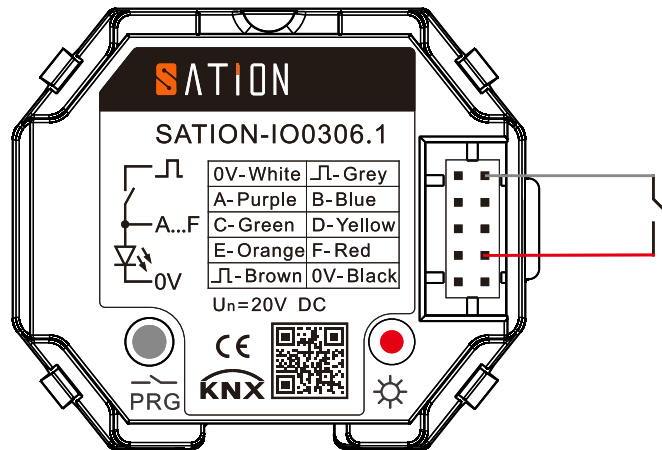
4 Programming LED (Red)

3.2 Dimension drawing



3.3 Circuit diagram

3.3.1 Inputs control

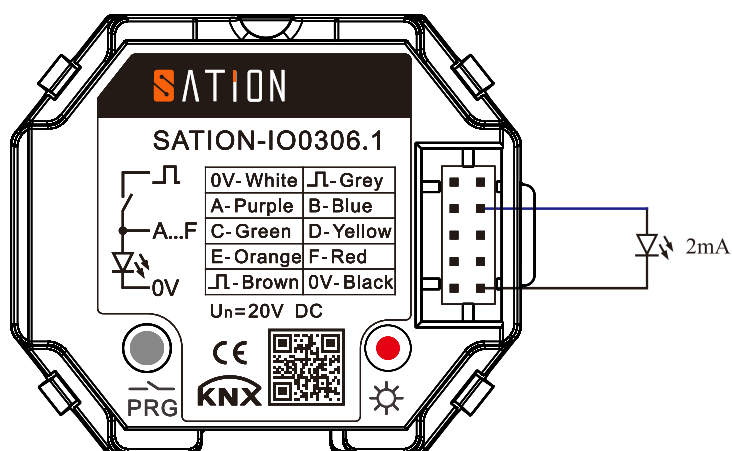


The definition of cable color are following:

Channel A	Purple
Channel B	Blue
Channel C	Green
Channel D	Yellow
Channel E	Orange
Channel F	Red
Power + (pulse voltages)	Gray or Brown
Power -	White and Black

When this product work as an input control ,the one side of this product contact to channel A~F, the another side contact to the power + .When the input is in ON-state..the pulse voltages of the power+ input to processor of this product.,then control corresponding operation via KNX bus.

3.3.2 Outputs Control



When this product work as an input control ,the one side of this product contact to channel A~F,the another side contact to power- . 1K current limiting resistor in series within each channel, the maximum output voltage is 3.3V, the maximum current is 2mA .

4 Contact Us

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Factory

Shenzhen H.Y Display Co.,Ltd.

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FAX: 0755-27301699

5 Appendix

5.1 SATION Universal Interface electromagnetic compatibility(EMC) standards in the chart below .

Items	NO	Requirement level	Performance	Remark															
ESD (EN61000-4-2)	EN61000-6-1	Contact 4KV/Air 8KV	B																
RS (EN61000-4-3)		80MHz-2GHz: 3V/m 2G-2.7GHz: 1V/m	A																
EFT (EN61000-4-4)		±1KV	B																
SURGE (EN61000-4-5)		L-N ±1KV L-PE ±2KV	B																
C/S (EN61000-4-6)		3V	A																
M/F (EN61000-4-8)		3V/m	A																
DIPS (EN61000-4-11)		<table><tr><td>0</td><td>% residual voltage</td></tr><tr><td>0.5</td><td>cycle</td></tr><tr><td>0</td><td>% residual voltage</td></tr><tr><td>1</td><td>cycle</td></tr><tr><td>70</td><td>% residual voltage</td></tr><tr><td>25/30 at 50/60Hz</td><td>cycle</td></tr><tr><td>0</td><td>% residual voltage</td></tr><tr><td>250/300 at 50/60Hz</td><td>cycle</td></tr></table>	0	% residual voltage	0.5	cycle	0	% residual voltage	1	cycle	70	% residual voltage	25/30 at 50/60Hz	cycle	0	% residual voltage	250/300 at 50/60Hz	cycle	B &C
0	% residual voltage																		
0.5	cycle																		
0	% residual voltage																		
1	cycle																		
70	% residual voltage																		
25/30 at 50/60Hz	cycle																		
0	% residual voltage																		
250/300 at 50/60Hz	cycle																		
Conducted interference	EN61000-6-3	66dB(μV) - 56 dB(μV) QP 56dB(μV) - 46 dB(μV) AV	A	0.15MHz-0.5M Hz															
		56 dB(μV) QP 46 dB(μV) AV	A	0.5MHz-5MHz															
		60dB(μV) QP 50dB(μV) AV	A	5MHz-30MHz															
Radiated interference		40 dB(μV/m)	A	30MHz-230M Hz															
		47 dB(μV/m)	A	230MHz-1000 MHz															
Harmonic current	EN61000-3-2		A																
Voltage fluctuation	EN61000-3-3		B																

Remark 1: The above standard level requirement from KNX standard 4-2 roll.

Remark 2: Performance A: Do not allowed errors ; Performance B: Allowing errors.

5.2 SATiON Universal Interface safety specification(CE) standards in the chart below.

Items	NO	Requirement level	Performance	Remark
	EN60947-3			
Insulation strength test	√	2	--	
Inflaming retarding test	√	2	--	
Temperature rise test	√	2	A	
Corrosion resisting test	√	2	A	
Electrical life test	√	2	A	
On-off volume control test	√	2	A	
Normal operation test	√	2	A	