2016

KNX Line Coupler Manual

1. Content

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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. The power lead and ground lead must meet the requirement of Electrical Installation Standard
7. Only used indoor, model number need to be changed for outdoor use
8. This product is NOT a toy, please make sure it is out of childrens' touch
9. Only be suitable for EIB/KNX system bus
10. 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 Line Coupler

1.1 Technical data

Supply	Supply voltage	21…32V DC
	Current consumption	Each channel<12mA
	KNX bus consumption	Each channel<250mW
External connection	KNX bus（2=Sub line）	Left bus connect terminal
	KNX bus (1=Main line)	Right bus connect terminal
Operation and display	Programming button and LED	LED
	Operation LED	LED
	KNX main line LED	LED
	KNX sub line LED	LED
Enclosure	IP20	EN 60 529
Safety class	III	EN 61 140
Isolation category	Overvoltage	EN 60 664-1
	Pollution degree	EN 60 664-1 2
KNX safety voltage	SELV	31V DC
Temperature range	Operation	-5℃…+45℃（3K5 ）
	Storage	-25℃…+55℃
	Transport	-25℃…+70℃
Environment requirement	Maximum air humidity	95%,no condensation allowed
	Volume	2TE
	Weight	0.009 kg
	Installation	35mm U-shape rail （EN60715）
Appearance	Gray-white	Color code：PANTONE PMS444
Approvals	KNX EN50090-1\-2	
CE mark	Refer to EMC index	

1.2 Appearance

2 Overview

This booklet provides all the details for SATION Line Coupler, including the installation and the usage explanation.
SATION-NC2100.20 0 1 is a modular install device.
It occupies the width of two installation units. The coupler can be used as a line coupler to a main line or as a backbone coupler to connect a main line to a backbone line. It provides the separation of electrical energy.

2.1 Product function

SATION-NC2100.20 0 1 can filtering telegrams,
and sending telegrams that belongs
this line.It is can send or block telegrams,it is also can be used to diagnosis network.

3 Device Technology

3.1 Device parameters

SATION-NC2100.20 0 1 is a modular install device that according to proM designed.
It is easy installed on the 35mm u-shape rail in the distribution box.
It is connected to main
line and the devices on sub line via KNX bus connected terminals.

KNX Bus—Operating voltage 21…30 V DC；
    —EIB/KNX current consumption < 12 mA

Connection
    —EIB/KNX bus connect terminals(diameter0.8mm)

Operation and indicator
    —button distribute physical address/ programming
    —Green   Power LED
    —Yellow   Main line operation status indicator
    —Yellow   Sub line operation status indicator

Enclosure
    —IP 20 ； EN60529

Safety level
    —III ； EN61140

Temperature range
    —Operating–5 ℃ … + 45 ℃
    —Storage–25 ℃ … + 55 ℃
    —Transportation–25 ℃ … + 70 ℃

Environmental condition
    —Humidity<95%,expect condensation
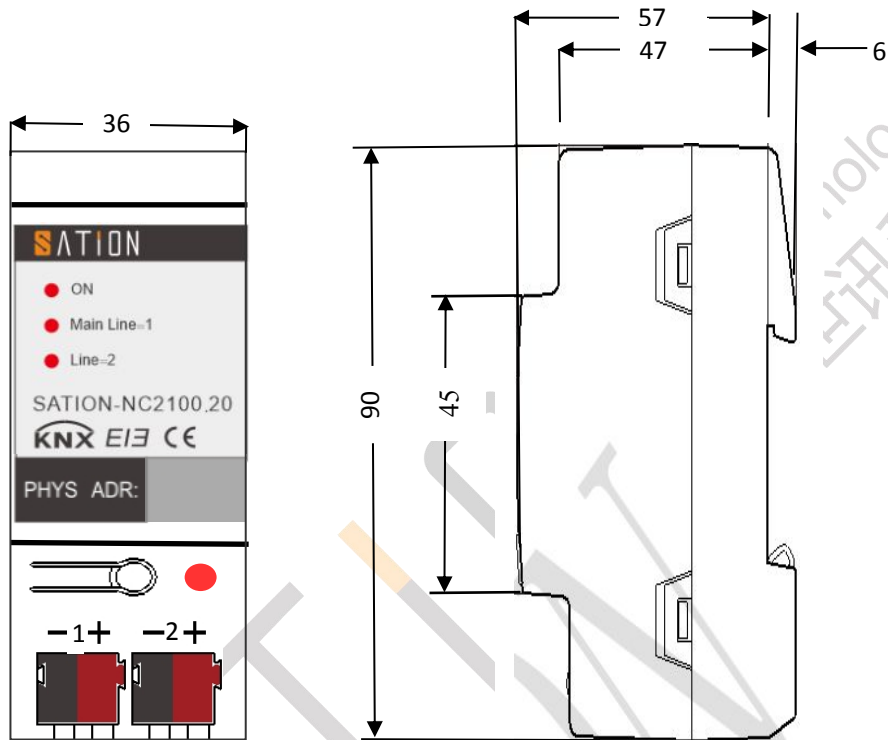   Weight：No more than 0.009kg；

Design
    —DIN Module components for DIN rails,35mm U-shape rail,modular installation
    —Size(Length*Width*Height mm)
      SATION-NC2100.20:   36x 90 x 63

3.2 Dimension drawing

3.2.1 NC2100.2001

36

SATION
● ON
● Main Line—1
● Line—2
SATION-NC2100.20
KNX EI∃ C€
PHYS ADR:

−1+ −2+

57
47
6

90
45

3.3 Circuit diagram(mm)
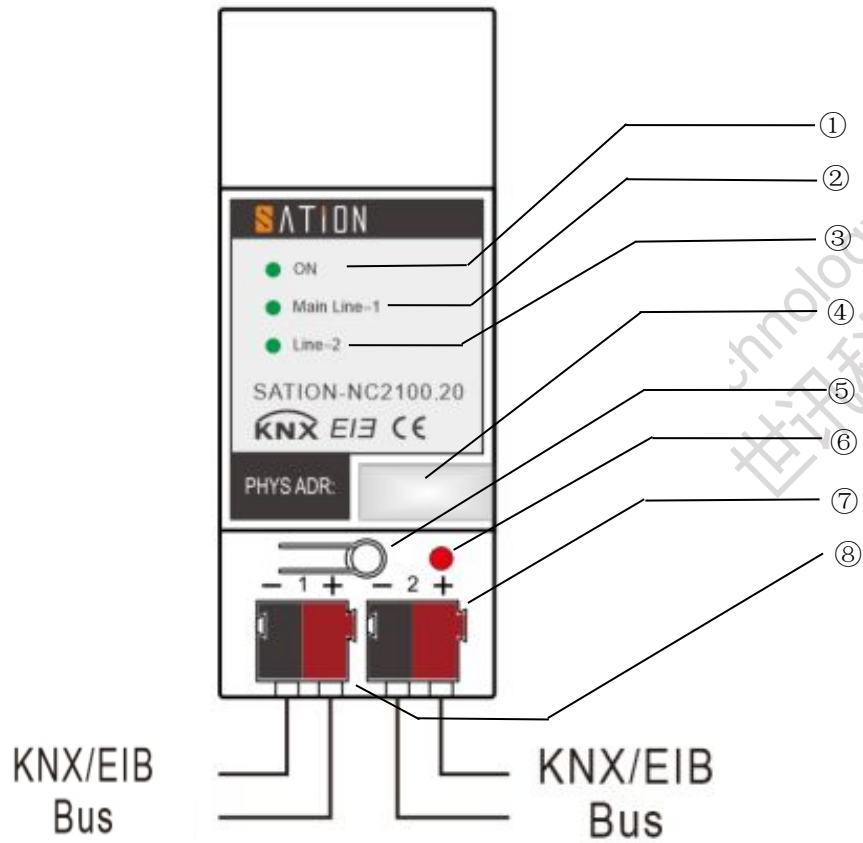
1.ON LED
2.Main line-1 LED
3.line-2 LED
4.Tag
5.Programming Button
6.Programming LED
7.Main-line
8.Sub-line

4 Contact Us

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5 Appendix

5.1 SATION-NC2100.20 0 1 electromagnetic compatibility(CE)

standards in the chart below.

Items	NO.	Require 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)			B&C	
Conducted interference	EN61000-6-3	66dB(μV) - 56 dB(μV) QP 56dB(μV) - 46 dB(μV) AV	A	0.15MHz-0.5MHz
		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-230MHz
		47 dB(μV/m)	A	230MHz-1000MHz
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 Line Coupler safety specification (CE) standard in the chart below.

Items	NO.	Require level	Performance	Remark
	EN6094 7-3			
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	