



2016

KNX IP Router Manual



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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 KNX-IP Router

1.1 Technical data

Supply	Supply voltage	10...30V DC
	Current consumption	<10mA
	KNX bus consumption	<500mW
	Rated voltage	DC 12V
	Rated current	DC 145±5 mA (12V DC)
Connections	LAN	RJ45 socket for 10/100BaseT, IEEE 802.3 networks
	Power connection	paired cable comply with KNX standard are required
	KNX bus connection	paired cable comply with KNX standard are required
Operation and display elements	Programming button and corresponding LEDs	LED
Enclosure	IP20	EN 60 529
Safety class	II	EN 61 140
Isolation category	Overvoltage category	EN 60 664-1 III
	Pollution degree	EN 60 664-1 2
KNX safety extra low voltage	SELV	24V DC
Temperature range	Operation	0°C...+45°C
	Storage	-25°C...+55°C
	Transport	-25°C...+70°C
Ambient conditions	Maximum air humidity	93%, no condensation allowed
Mechanical parameter	Volume	2TE
	Weight	0.7 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 Functions

This booklet provides all the details for SATION IP Router GW2300.20, including the installation and the usage explanation.

SATION-GW2300.20 connects the KNX bus with the Ethernet network. KNX telegrams can be sent to or received from other devices via the network. The device uses the KNXnet/IP protocol from the KNX Association for communication. The IP Router in addition to the tunnelling function for point-to-point communication, also incorporates the functions of a line coupler (routing). The IP Router can thus distribute telegrams in the network to other lines or areas, as well as receive telegrams from there.

2.1 Product Functions

SATION IP Router via Ethernet to completed connection between KNX and Ethernet. Using KNX terminal connected to system network. Accessory power supply (10...30 V DC) power supply. That completed the telegram exchange between Ethernet and KNX device. The assignment of physical address and the parameter setting using the engineering tool software ETS with VD3/VD4 files (version ETS3v1.3 above) completed. If using software ETS4, it need VD4 installation files.

3 Device Technology

3.1 Device parameters

SATION IP router is a modular installation device. According to the proM design requirements, easily installed on 35mm U-shaped rail in the distribution box. KNX system connected with Ethernet via the KNX bus terminal and RJ-45 plugs.

KNX bus—supply voltage 10...30 V DC via plug-in terminal

Power — supply voltage 10...30 V DC

— Current consumption KNX < 10mA

— Current consumption < 145±5mA at 12 V

Connections

—EIB/KNX Bus connection terminal (Diameter 0.8mm)

—RJ-45 plugs and Twisted-pair

Operation and display elements

—Button for assignment of the physical address; Flash LED indicates that the equipment is available

—LED green Operating mode display

—LED yellow Network connection indicator
KNX telegram traffic indicator

Enclosure

—IP 20 To DIN EN 60529

Safety class

—II ; To DIN EN 61140

Temperature range

—Operation -5 °C ... + 45 °C

—Storage -25 °C ... + 55 °C

—Transport -25 °C ... + 70 °C

Ambient conditions

—Maximum air humidity < 93%, no condensation allowed

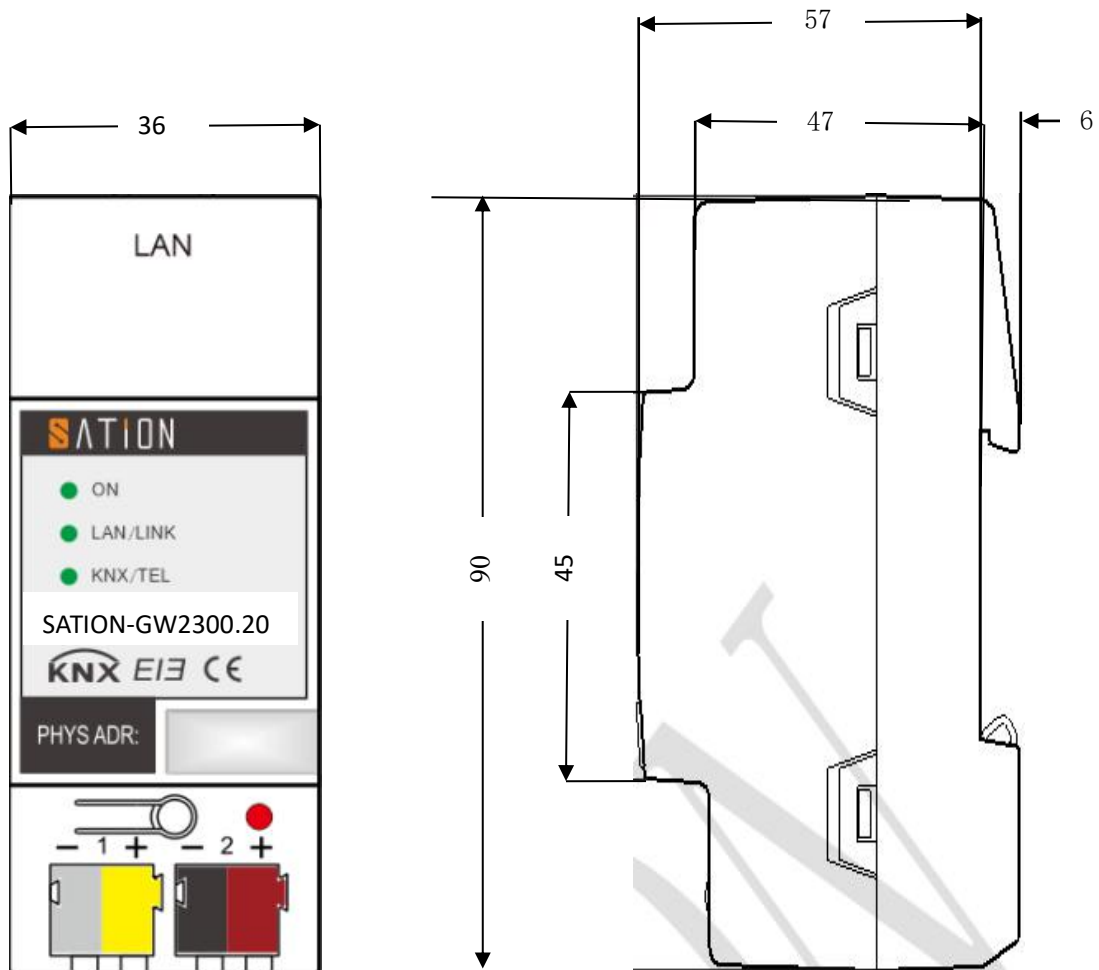
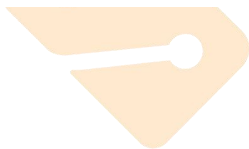
Weight: No more than 1kg;

Design

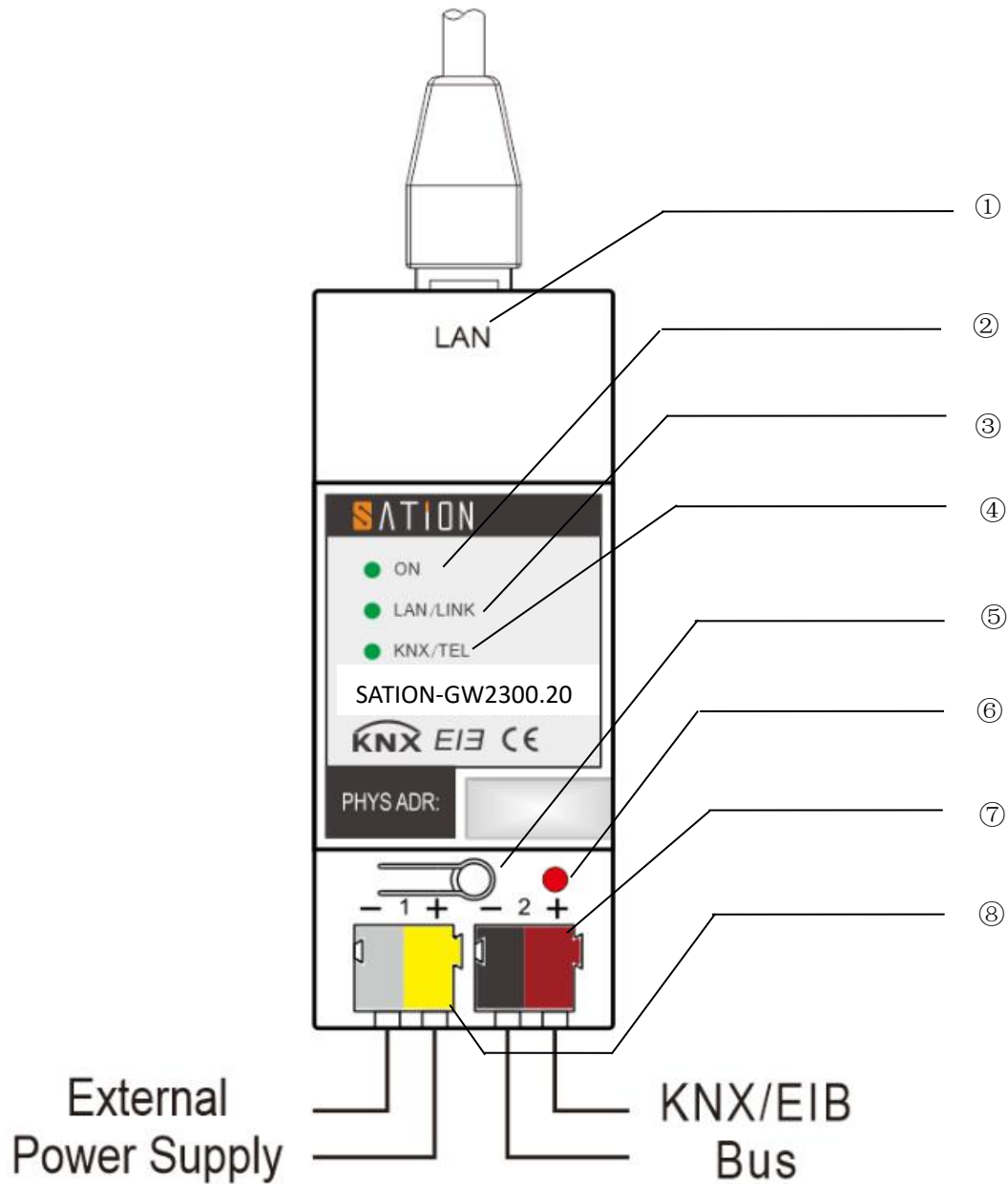
—35mm U-shape rail, Modular installation device, ProM

—Dimensions SATIION-GW2300.20 (36*90*63mm)

3.2 Dimension drawing (mm)



3.3 Circuit diagram (mm)



- 1 LAN connection
- 2 LED ON
- 3 LED LAN/LINK
- 4 LED telegram
- 5 Programming button
- 6 LED Programming
- 7 KNX connection
- 8 Supply voltage connection

4 Contact Us

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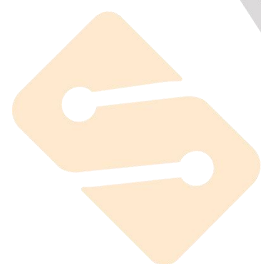
<https://www.sation.com.cn>

Factory

Shenzhen H.Y Display Co.,Ltd.

TEL: 0755-27336598

FAX: 0755-27301699



5 Appendix

5.1 SATIION IP Router electromagnetic compatibility(CE) 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 cycle</td></tr><tr><td>0.5</td><td>% residual voltage cycle</td></tr><tr><td>0</td><td>% residual voltage cycle</td></tr><tr><td>1</td><td>% residual voltage cycle</td></tr><tr><td>70</td><td>% residual voltage cycle</td></tr><tr><td>25/30 at 50/60Hz</td><td>% residual voltage cycle</td></tr><tr><td>0</td><td>% residual voltage cycle</td></tr><tr><td>250/300 at 50/60Hz</td><td>% residual voltage cycle</td></tr></table>	0	% residual voltage cycle	0.5	% residual voltage cycle	0	% residual voltage cycle	1	% residual voltage cycle	70	% residual voltage cycle	25/30 at 50/60Hz	% residual voltage cycle	0	% residual voltage cycle	250/300 at 50/60Hz	% residual voltage cycle	B&C
0	% residual voltage cycle																		
0.5	% residual voltage cycle																		
0	% residual voltage cycle																		
1	% residual voltage cycle																		
70	% residual voltage cycle																		
25/30 at 50/60Hz	% residual voltage cycle																		
0	% residual voltage cycle																		
250/300 at 50/60Hz	% residual voltage cycle																		
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-5 MHz															
		60dB(μV) QP 50dB(μV) AV	A	5MHz-30 MHz															
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 IP Router safety specification (CE) standard 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	