SpaceLogic KNX

SpaceLogic KNX Power Supply 1280 mA
SpaceLogic KNX Power Supply 640 mA
SpaceLogic KNX Power Supply 320 mA

Product Information

This document follows on from the installation instruction and provides further product information. You will find information about e.g. the functions or the different operating states, etc.

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Safety information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of either symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that accompany this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury

NOTICE

NOTICE is used to address practices not related to physical injury.

Additonal notes

The specified information must be followed, otherwise a program or data error may occur.

You will find additional information here to make your work easier.

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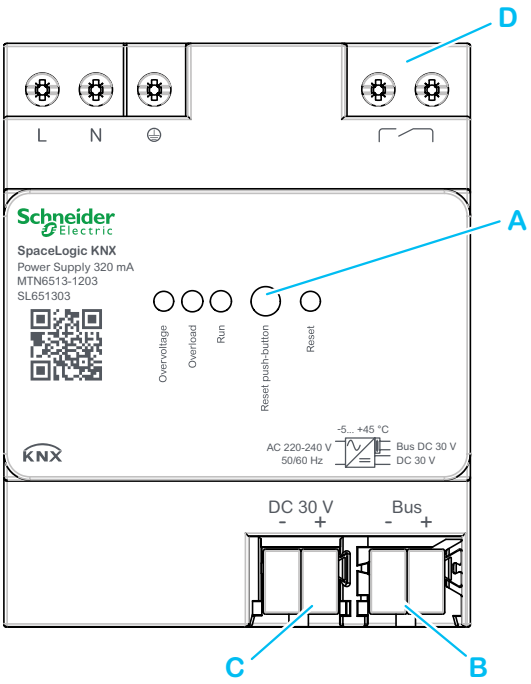
1 Getting to know SpaceLogic KNX Power Supply 320 mA

SpaceLogic KNX Power Supply 320 mA generates the KNX system voltage (SELV). It guarantees the supply of electrical energy to the KNX devices and data communication via the bus line.



The bus line can be connected to the KNX power supply at connection **B** “Bus”. Due to the integrated choke, the use of an external KNX choke is not necessary.

In addition, the KNX power supply has a DC voltage output **C** “DC 30 V” (SELV), which has no choke. This connection is used, for example, to supply a further line (e.g. main line) via a separately installed KNX choke.

Alternatively, the DC voltage output can be used to supply other functional devices.

To increase the rated current, you can connect a maximum of two SpaceLogic KNX Power Supplies 320 mA in parallel in one bus line. It is not necessary to connect 200 m bus line between the power supplies.

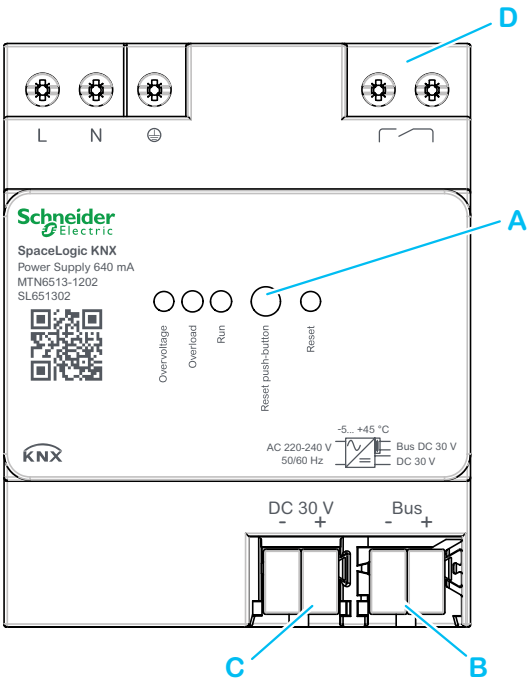
The electrical load can be divided between the “BUS” and “DC 30 V” outputs as required, but device’s nominal current of 320 mA must not be exceeded.

If the permissible nominal current of the device is exceeded, the device indicates overload (Overload LED lights up). This is independent of whether the voltage supply is operated individually or in parallel with a second one, or whether the “DC 30 V” output is also used.

The outputs have a common overload and short-circuit protection and an open-circuit proof. The bus line is connected via a KNX connection terminal

2 Getting to know SpaceLogic KNX Power Supply 640 mA

SpaceLogic KNX Power Supply 640 mA generates the KNX system voltage (SELV). It guarantees the supply of electrical energy to the KNX devices and data communication via the bus line.



The bus line can be connected to the KNX power supply at connection **B** “Bus”. Due to the integrated choke, the use of an external KNX choke is not necessary.

In addition, the KNX power supply has a DC voltage output **C** “DC 30 V” (SELV), which has no choke. This connection is used, for example, to supply a further line (e.g. main line) via a separately installed KNX choke.

Alternatively, the DC voltage output can be used to supply other functional devices.

To increase the rated current, you can connect a maximum of two SpaceLogic KNX Power Supply 640 mA in parallel in one bus line. It is not necessary to connect 200 m bus line between the power supplies.

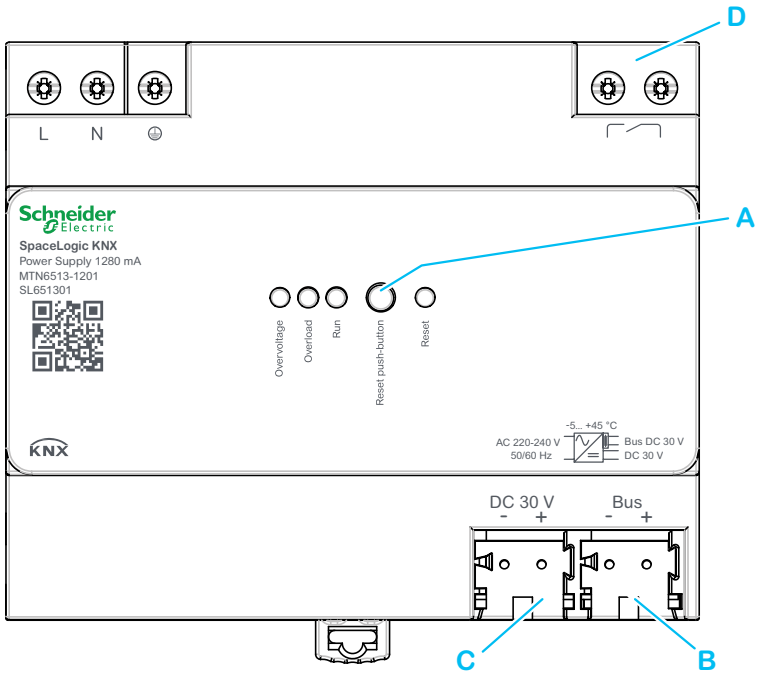
The electrical load can be divided between the “BUS” and “DC 30 V” outputs as required, but the device’s nominal current of 640 mA must not be exceeded.

If the permissible nominal current of the device is exceeded, the device indicates overload (Overload LED lights up). This is independent of whether the voltage supply is operated individually or in parallel with a second one, or whether the “DC 30 V” output is also used.

The outputs have a common overload and short-circuit protection and an open-circuit proof. The bus line is connected via a KNX connection terminal.

3 Getting to know SpaceLogic KNX Power Supply 1280 mA

SpaceLogic KNX Power Supply 1280 mA generates the KNX system voltage (SELV). It guarantees the supply of electrical energy to the KNX devices and data communication via the bus line.



The bus line can be connected to the KNX power supply at connection **B** “Bus”. Due to the integrated choke, the use of an external KNX choke is not necessary.

In addition, the KNX power supply has a DC voltage output **C** “DC 30 V” (SELV), which has no choke. This connection is used, for example, to supply a further line (e.g. main line) via a separately installed KNX choke.

Alternatively, the DC voltage output can be used to supply other functional devices.

The electrical load can be divided between the “BUS” and “DC 30 V” outputs as required, but the device’s nominal current of 1280 mA must not be exceeded.

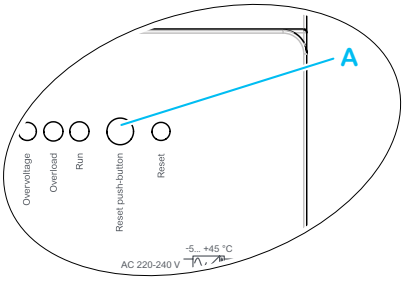
If the permissible nominal current of the device is exceeded, the device indicates overload (Overload LED lights up).

The outputs have a common overload and short-circuit protection and an open-circuit proof. The bus line is connected via a KNX connection terminal.

The parallel connection of two 1280 mA power supplies in one line is not permitted, because the maximum permissible current in one line (KNX specification: max. 3 A) is exceeded.

4 Functions at a glance

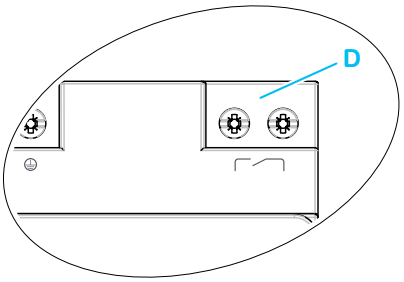
4.1 Display and operating elements



The power supply has a reset button **A**, which, when pressed, shorts the bus line for a defined time or permanently, thus resetting the connected bus devices. It is also possible to acknowledge a fault message via the reset button. Reset the device --> 10

You can read off the operating status of the power supply via a LED display on the front of the device.

4.2 Signalling contact



The KNX power supply has a potential-free relay output **D** as a signalling contact for operating or diagnostic messages. This contact is closed in normal operation and open in faulty operation of the devices (overload, overvoltage, KNX voltage failure).Function of the signalling contact --> 12

4.3 Operation with emergency power systems

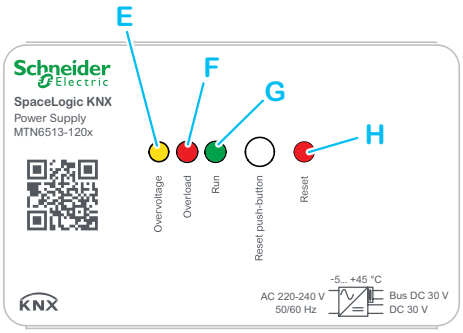
The KNX power supply can be used in combination with centrally supplied emergency power systems. In this way, the function of the KNX system and the operation of the most important functions can be guaranteed in emergency operation.

Statutory and standard specifications for emergency power and emergency lighting systems vary from country to country. In any case, check whether the specific requirements are observed.

5 Operation

5.1 LED display

You can read operating status of the power supply via a LED display on the front of the device.



E	●	Overvoltage	On: Overvoltage on the KNX bus line and at the DC 30 V output
F	●	Overload	On: Overload or short circuit on the KNX bus line and at the DC 30 V output
G	●	RUN LED	On: Normal operation Off: No KNX voltage / DC 30 V or internal error Flashing: Overload or overvoltage
H	●	Reset	Flashing rapidly (approx. 2.5 Hz): Reset with a duration of 20 seconds Flashing slowly (approx. 0.25 Hz): Permanent reset

LED behaviour

Operating status	RUN LED ●	Overload LED ●	Overvoltage LED ●	Reset-LED ●	Signalling contact
Normal operation	on	off	off	off	closed
Reset 20 s	on	off	off	flashes fast (2.5 Hz)	closed
Reset permanent	on	off	off	flashes slowly (0.25 Hz)	closed
Overvoltage	flashes*	off	on**	off	opened***
Overload, short circuit	flashes*	on**	off	off	opened***
KNX voltage / DC 30 V failed, internal error	off	off	off	off	opened

LED behaviour / operating status

* LED flashes as long as the fault is identified.

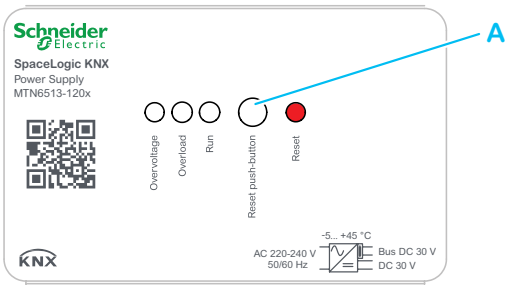
** LED lights up until the fault is acknowledged via the reset button.

*** Signalling contact is open until the fault is acknowledged via the reset button.

5.2 Reset the device

In normal operation it is not necessary to control the power supply.

If you reset the device, the output voltage of the power supply is switched off. At the same time, the bus line is short-circuited so that all connected KNX devices are disconnected from the bus voltage.



By pressing the reset button **A** you can reset the connected bus line or acknowledge a fault.

The button is recessed to prevent inadvertent actuation during operation.

Reset button		**Reset LED** ●
Acknowldedge diagnositic message	Press button	
Switch off KNX bus line for 20 seconds	long button press 2-4 s	flashes fast (ca. 2,5 Hz)
Switch off the KNX bus line permanently	very long button press >4 s	flashes slowly (ca. 0,25 Hz)
End permanent reset	Press button	

Overview about functins and states

Switch off KNX bus line for 20 seconds

The connected KNX bus line can be switched off for a defined period of 20 seconds.

① Press reset button **A** for a period of 2-4 seconds.

The bus line is short-circuited for a duration of 20 seconds. The reset LED flashes fast (approx. 2.5 Hz).

After 20 seconds, the bus voltage is automatically switched on again. The reset LED switches off.

The DC 30 V output is not short-circuited during a bus reset.

Permanently switching off the KNX bus line

The connected KNX bus line can be switched off permanently (e.g. for installation or maintenance work).

① Pess reset button **A** for more than 4 seconds.

The bus line is short-circuited. The reset LED flashes slowly (approx. 0.25 Hz).

The DC 30 V output is not short-circuited during a bus reset.

End the permanent reset

Requirement: The KNX bus line is permanently switched off. The reset LED flashes slowly (approx. 0.25 Hz).

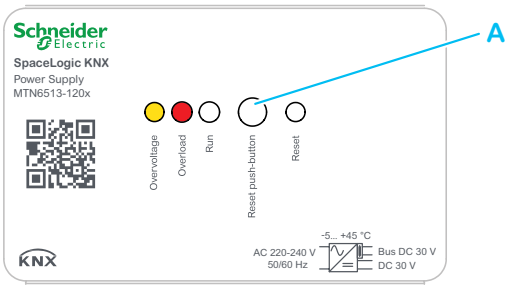
① Press reset button **A**

The bus voltage is switched on again. The reset LED switches off.

A permanent reset is automatically set back when the mains voltage supply is switched off and on again.

5.3 Acknowledge fault/diagnostic message

After a detected overvoltage or short circuit, the LED (red LED for short circuit, overload or yellow LED for overvoltage) and the signal contact report the event until the message is acknowledged.



By pressing the reset button **A** you can reset the connected bus line or acknowledge a fault.

The button is recessed to prevent accidental actuation during operation.

① Press reset button **A**

The fault is acknowledged and reset.

A fault is automatically acknowledged when the mains power supply is switched off and on again.

5.4 Function of the signalling contact

The power supply has a potential-free relay output as a signalling contact for operating or diagnostic messages. This contact is closed during normal operation and open during faulty operation of the devices (short circuit, overload, overvoltage, KNX power failure).

Operating status	RUN LED	Overload LED	Overvoltage LED	Reset-LED	Signalling contact
Normal operation	on	off	off	off	closed
Reset 20 s	on	off	off	flashes fast (2.5 Hz)	closed
Reset permanent	on	off	off	flashes slowly (0.25 Hz)	closed
Overvoltage	flashes*	off	on**	off	opened***
Overload, short circuit	flashes*	on**	off	off	opened***
KNX voltage / DC 30 V failed, internal error	off	off	off	off	opened

LED behaviour / operating status

* LED flashes as long as the fault is identified.

** LED lights up until the fault is acknowledged via the reset button.

*** Signalling contact is open until the fault is acknowledged via the reset button.

The BUS and DC 30 V outputs have common overload and short-circuit protection. In the event of a fault (short circuit, overload, overvoltage), both outputs are basically affected and therefore not ready for operation.

The signalling contact indicates a power failure on the KNX line. In the case of power supplies connected in parallel, the signalling contact only opens if both power supplies are faulty or switched off (e.g. if the mains voltage fails on both devices). In this case, the green operation LED also only goes out when both power supplies are switched off.

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