

FEATURES

- 4.1" capacitive color touch panel.
- 16 million color LCD display.
- Up to 12 configurable pages.
- Up to 96 configurable direct control and/or indicator functions.
- 2 independent thermostats.
- 2 analog/digital inputs.
- Customized device orientation (Vertical or Horizontal)
- Built-in temperature sensor.
- Real Time Clock (RTC) with watch battery.
- External 12-29VDC power supply.
- Integrated KNX BCU.
- Mini-USB connection.
- Magnetic fit.
- Complete data saving in case of KNX bus failure.
- Conformity with the CE directives (CE-mark on the back side).

1. Mini-USB connector	2. External power supply connector	3. Temperature probe	4. KNX connector
5. A/D inputs	6. Battery	7. Programming button	8. Programming LED
		9. Magnet	

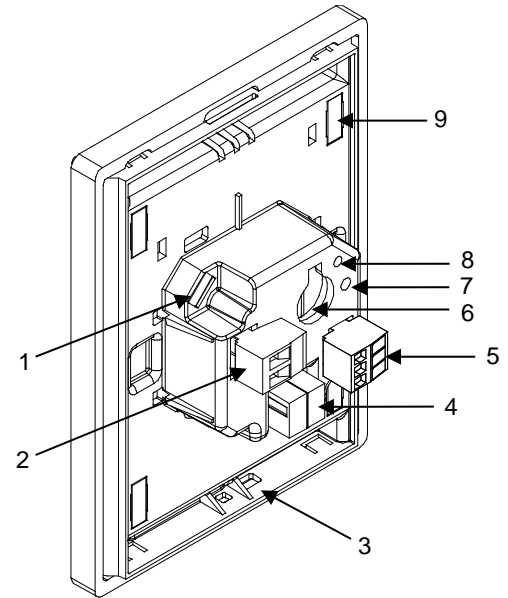


Figure 1. Z41 Lite

Programming button: short button press to set programming mode. If this button is held while plugging the device into the KNX bus, it enters into safe mode.
Programming LED: programming mode indicator (red). When the device enters into safe mode, it blinks (red) every half second. During the start-up (reset or after KNX bus failure) and if the device is not in safe mode, it emits a red flash.

GENERAL SPECIFICATIONS

CONCEPT		DESCRIPTION		
Type of device		Electric operation control device		
KNX Supply	Voltage (typical)	29VDC SELV		
	Voltage range	21...31VDC		
	Maximum consumption	Voltage	mA	mW
		29VDC (typical)	6	174
24VDC ⁽¹⁾	10	240		
Connection type		Typical bus TP1 connector for rigid cable 0.80mm ø		
External Power Supply		12- 29 VDC. Maximum consumption: 150mA (12VDC), 76mA (24VDC), 63mA (29VDC). Do not connect 29VDC KNX bus as external power supply		
Operating Temperature		0°C to +45°C		
Storage Temperature		-20°C to +60°C		
Operating humidity		5 to 95% RH (no condensation)		
Storage humidity		5 to 95% RH (no condensation)		
Complementary characteristics		Class B		
Protection class		III		
Operation type		Continuous operation		
Device action type		Type 1		
Electrical stress period		Long		
Degree of Protection		IP20, clean environment		
Installation		Vertical or Horizontal position, with the temperature sensor at the bottom or right, respectively. Magnetic fit. See <i>Installation and Connection Diagram</i> section		
Minimum clearances		Please, keep away from heat and cold air flows to get better temperature measurements.		
Response on KNX bus failure		Complete data saving. Initialization screen.		
Response on KNX bus restart		Before failure data recovery		
Response to external power supply failure		Complete data saving. Display is switched off		
Response to external power supply failure recovery		Current data recovery		
Function indicator		Several on display as programmed		
Accessories		Mini USB A-B cable Ref. ZN1AC-UPUSB (not included)		
Weight		229g (Aluminium frame version) / 221g (Polycarbonate frame version) including battery 1g		
PCB CTI Index		175V		
Housing material		PC+ABS FR V0 halogen free		

⁽¹⁾ Maximum consumption in the worst case scenario (KNX Fan-In model)

POWER SUPPLY AND PORT SPECIFICATIONS

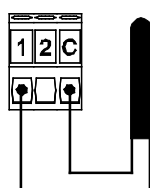
CONCEPT	DESCRIPTION
External power supply connection	Pluggable screw terminal block
USB Connector	Mini USB Type A connector. Version 2.0. Use this port only for firmware updates. Consult the <i>Manual for Firmware Update</i> at www.zennio.com . Do not connect to PC, hard drives or other devices with consumption higher than 150mA.

INTERNAL TEMPERATURE SENSOR AND CLOCK SPECIFICATIONS	
CONCEPT	DESCRIPTION
INTERNAL TEMPERATURE SENSOR	
Measuring range	-10 to 50°C
Resolution	0.1°C
Sensor precision @25°C	1%
Calibration	The temperature sensor should be calibrated through the application program according to the external power supply connected and the frequency of usage
INTERNAL CLOCK	
Resolution	1 minute in display / 1 second in KNX bus
Precision	30ppm
Power supply	CR1225 3V battery
Data/time Set	Manual (set from screen) or auto (through KNX Clock telegrams in bus)
Response to power failure (bus or external power supply)	It does not affect to internal clock
Response to power recovery	The internal error shows current time

INPUT SPECIFICATIONS AND CONNECTIONS

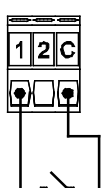
Any combination of the next accessories is allowed in the inputs:

Temperature Probe



Zennio Temperature Probe

Switch/Sensor/ Push button



Motion Sensor



Up to two motion sensors can be plugged into the same Z41 Lite input (parallel wiring)

Motion sensor screw terminal.

Motion sensor references:
ZN1IO-DETEC-P⁽²⁾
ZN1IO-DETEC-X

CONCEPT	DESCRIPTION
Number of inputs	2
Inputs per common	2
Operation voltage	+3.3VDC on the common
Operation current	1.0mA @ 3.3VDC (per input)
Maximum impedance	Aprox. 3.3kΩ
Switching type	Dry voltage contacts between input and common
Connection method	Pluggable screw terminal block
Maximum cable length	30m
NTC probe length	1.5m (up to 30m)
NTC accuracy (@ 25°C)	0.5°C
Temperature measure precision	0.1°C
Cable cross-section	0.5mm ² to 1.5mm ² (28-14 AWG)
Maximum response time	10ms

(2) The micro switch number 2 in the ZN1IO-DETEC-P must be in **Type B** position to work properly.

INSTALLATION AND CONNECTION DIAGRAMS

Step 1: Place the metallic piece into a squared or rounded standard mounting box with screws.

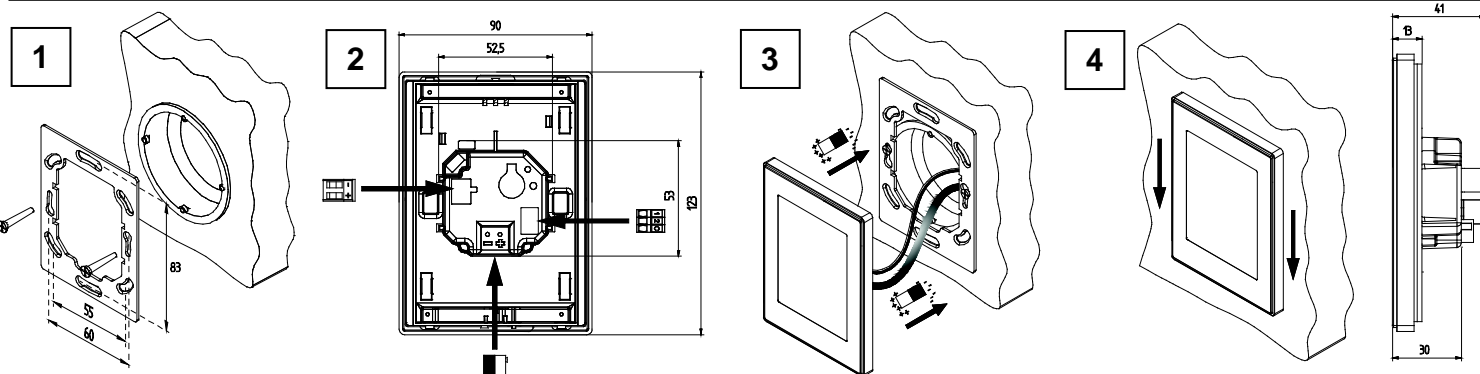
Step 2: Connect the KNX bus at the rear of Z41 Lite, as well as the external power supply and the A/D input terminals.

Step 3: Once the power supply and KNX bus are connected, fit Z41 Lite in the metal platform. The device is fixed through the magnets.

Step 4: Slid Z41 Lite downwards to fix it with the security anchorage system. Check, from the side, that nothing unless Z41 Lite outline can be seen (the metal platform should be completely hidden by Z41 Lite).

In case of landscape configuration, please follow the steps considering a 90° counter-clockwise rotation.

To uninstall proceed in the reverse way.



GENERAL CARE

- Do not use aerosol sprays, solvents, or abrasives that might damage the device.
- Clean the product with a clean, soft, damp cloth.

SAFETY INSTRUCTIONS

- Installation should only be performed by qualified professionals according to the laws and regulations applicable in each country.
- Do not connect the mains voltage nor any other external voltage to any point of the KNX bus; it would represent a risk for the entire KNX system. The facility must have enough insulation between the mains (or auxiliary) voltage and the KNX bus or the wires of other accessories, in case of being installed.
- Keep the device away from water and do not cover it with clothes, paper or any other material while in use.
- The WEEE logo means that this device contains electronic parts and it must be properly disposed of by following the instructions at <http://zennio.com/wEEE-regulation>.

