

CANx 10 x Push-button inputs / 1 x PT1000 sensor input / Thermostat, flush-mounted

Flush mounted 10 binary inputs / LED control with temperature sensor and thermostat is simply mounted on the backside of the conventional switch and makes it as a canX sensor. In total 10 push buttons can be connected to one device. It acts also like a normal thermostat by having temperature sensor on-board. Each port of the device can be used as output for LED control. Further, the device has PT1000 sensor input.



ENG - Data sheet

Issue date 26.11.2021

Application

Lighting, HVAC applications

Types of product

CANx 10 x Push-button inputs / 1 x PT1000 sensor input, flush-mounted CAN-UI10

Standards and norms compliance

CE conformity:	EMBS-CE-190223/01 Electromagnetic compatibility
EMC:	EN61000-6-1
	EN61000-6-3
PCT	Certificate

Technical data:

Power supply:	12 - 32V DC
	Power consumption (at 24 V)
	Input mode: 11mA
	DC overvoltage protection: ±50 V
	Wrong wiring polarity protection
Interface:	Binary inputs or outputs 10
	Voltage if used as output 5V

	Current if used as output	5mA (enough for regular LED)
	Temperature sensor	1
	PT1000 input	1
Clamps:	CAN FT	CAN FT Connection Terminal 0.8mm ²
	Inputs/Outputs	Sharp ZH 1.5mm connector (6pin cables included)
	Power supply	Connection Terminal 0.8mm ²
Operating elements	1 – programming LED 1 – programming button	
Enclosure:	Material:	Polyamide
	Color:	White
	Dimensions:	52(W)x48(H)x15(L) mm
Usage temperature:	-5C ... +55C	
Storage temperature:	-20C ... +70C	
Weight:	100g	
Warranty:	2 years	



Caution Security advice

The installation and assembly of electrical equipment may only be performed by skilled electrician. The devices must not be used in any relation with equipment that supports, directly or indirectly, human health or life or with application that can result danger of people, animals or real value

Mounting advice

The devices are supplied in operational status. The cables connections included can be clamped to the housing if required.

Electrical connection

The devices are constructed for the operation of protective low voltage (SELV). Grounding of device not needed. When switching the power supply on or off, power surges must be avoided.



Default settings

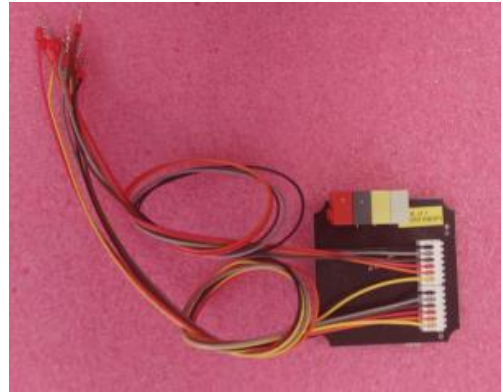
Line ID: 0

Node ID: 1

Max. number of group addresses per object : 16

Reset to defaults

Press programming button for 5 seconds, the RED LED blinks 2 times, then release button - GREEN lights up shortly.

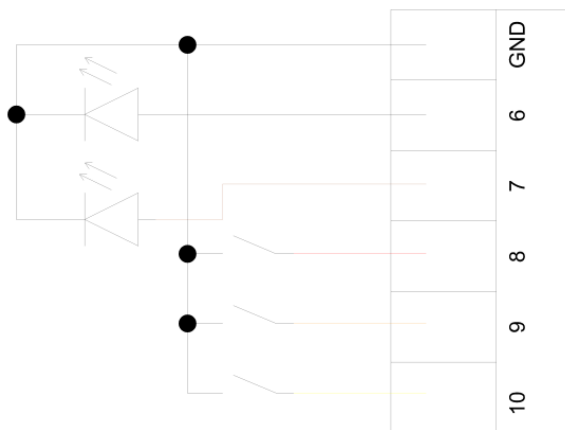
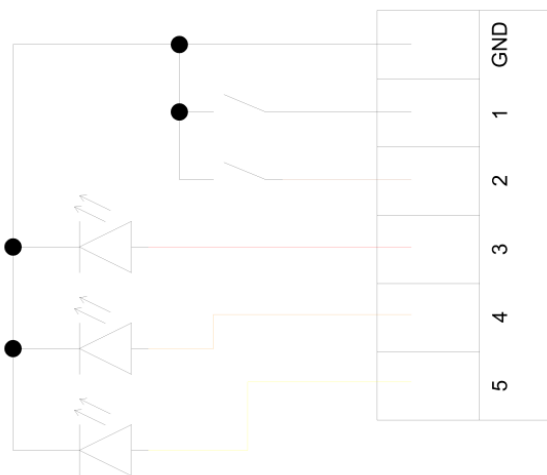


Programming physical address

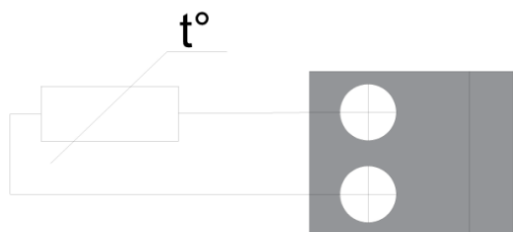
Press programming button shortly, GREEN LED lights up. After you have programmed address from canX application, it will automatically switch off the LED.

1. Terminal connection scheme CAN-EXT10T

Binary input / LED output



PT1000 Temperature sensor input



canX software settings

Binary input

UI10 (10 Universal inputs + Thermostat) (0.3) x

All Enabled DisabledInput 1 ✔

- Port 1
- Port 2
- Port 3
- Port 4
- Port 5
- Port 6
- Port 7
- Port 8
- Port 9
- Port 10
- Temperature sensor
- Thermostat
- Heating
- Cooling

Input 1

Switch - On/Off ▼

- Switch - On/Off
- Disabled
- Switch - Off/On (inverse)
- Switch - Toggle
- Button - Toggle (optional long press)
- Button - On (optional long press)
- Button - Off (optional long press)
- Button - Start/Stop
- Button - Stop/Start (inverse)

Flags

FTRW

Save and write to device Save Cancel

Default flags: read (R), write (W), transmit (T)

Input mode:

Switch on/off – send 1 to bus if switched ON or 0 if switched OFF

Switch off/on (inverse) – send 0 to bus if switched ON or 1 if switched OFF

Switch Toggle - change status to inverted with every push

$V_{High} = 0 / 1 / \text{Toggle}$
 $V_{Low} = 0 / 1 / \text{Toggle}$

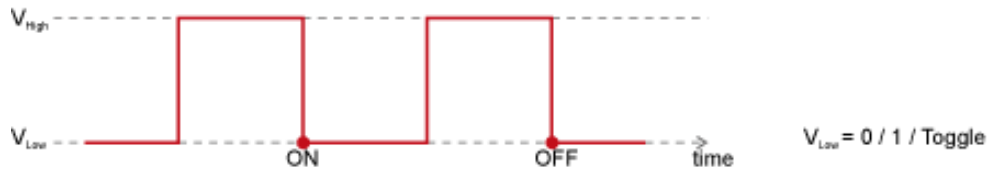
Button Toggle (optional long press) – change status to inverted with every push

Button On (optional long press) – push 1 to bus every pulse

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Button Off (optional long press) – push 0 to bus every pulse



Button Start/Stop – send 1 when pushed and 0 when released

Button Stop/Start (inverse) – send 0 when pushed and 1 when released



Button long press toggle - Send 0 or 1 to bus with every long press

Button long press send 1 - Send 1 with every long press

Button long press send 0 - Send 0 with every long press



UI10 (10 Universal inputs + Thermostat) (0.3)

All Enabled Disabled
Input 1 👍
Input 1 - Long press 👍
✕

Port 1
Port 2
Port 3
Port 4
Port 5
Port 6
Port 7
Port 8

Input 1 - Long press

Long press - Toggle ▼

Disabled

Long press - Toggle

Long press - On

Long press - Off

🔍 No group addresses selected

Flags

F T R W

Tags

🔍 No tags set

LED control

When the Input is set to Disabled, additional window for LED control appears

UI10 (10 Universal inputs + Thermostat) (0.1) Device location + Add - No location - x

All Enabled Disabled Input 1 ⊖ LED 1 ⊖

Port 1

Port 2

Port 3

Port 4

Port 5

Port 6

LED 1

Disabled ▼

Disabled

Normal - Off after power-up

Inverse - Off after power-up

Normal - On after power-up

Inverse - On after power-up

UI10 (10 Universal inputs + Thermostat) (0.1) Device location + Add - No location - x

All Enabled Disabled Input 1 ⊖ LED 1 ⊕

Port 1

Port 2

Port 3

Port 4

Port 5

Port 6

Port 7

Port 8

LED 1

Normal - Off after power-up ▼

Flags F T R W

Group addresses + Add 1 bit (boolean)

x 0/0/1 UI10 (10 Universal inputs + Thermostat) - LED 1

Q

Tags

Q No tags set

Temperature sensor

UI10 (10 Universal inputs + Thermostat) (0.3)

Device location + Add

- No location - x

All Enabled Disabled

- Port 1
- Port 2
- Port 3
- Port 4
- Port 5
- Port 6
- Port 7
- Port 8
- Port 9
- Port 10
- Temperature sensor
- Thermostat
- Heating
- Cooling

Temperature sensor value ✔

Value correction

Temperature sensor value

- Use internal sensor
- Disabled
- Use internal sensor
- Use external sensor (PT1000)
- UI10 (10 Universal inputs + Thermostat) - temperature sensor value

Flags

- F
- T
- R
- W

Tags

No tags set

Default flags: read (R), transmit (T)

Temperature sensor value: defines either to use internal sensor or externally connected PT1000 sensor

Value correction: temperature value compensation. Used for example in the situation when UIO10 is located in room other than the one we need to control heating/cooling

UI10 (10 Universal inputs + Thermostat) (0.3)

x

All Enabled Disabled

- Port 1
- Port 2
- Port 3
- Port 4
- Port 5
- Port 6
- Port 7
- Port 8
- Port 9
- Port 10
- Temperature sensor
- Thermostat
- Heating
- Cooling

Temperature sensor value

Value correction

Value correction

- No correction
- No correction
- +3°C
- +4°C
- +5°C
- +6°C
- +7°C
- 1°C
- 2°C
- 3°C
- 4°C
- 5°C
- 6°C
- 7°C

Thermostat

UI10 (10 Universal inputs + Thermostat) (0.3)

×

All Enabled Disabled

Thermostat control Setpoint Hysteresis Stand-by mode

Port 1

Port 2

Port 3

Port 4

Port 5

Port 6

Port 7

Port 8

Port 9

Port 10

Temperature sensor

Thermostat

Heating

Cooling

Thermostat control

Enabled

Flags F T R **W**

Thermostat can be enabled/disabled via control object

Group addresses Add 1 bit (boolean)

0/0/2 UI10 (10 Universal inputs + Thermostat) - Thermostat control

Q

Tags

Q No tags set

Default flags: write (W)

Thermostat control:

Disabled – thermostat control is disabled

Enabled – thermostat control is enabled

Setpoint: base setpoint settings

UI10 (10 Universal inputs + Thermostat) (0.3) ×

All Enabled Disabled
Thermostat control
Setpoint
Hysteresis
Stand-by mode

Port 1	
Port 2	
Port 3	
Port 4	
Port 5	
Port 6	
Port 7	
Port 8	
Port 9	
Port 10	
Temperature sensor	
Thermostat	
Heating	
Cooling	

Group addresses ➕ Add 4 byte floating point

✕ 0/0/3 UI10 (10 Universal inputs + Thermostat) - Setpoint

Flags

F T R W

Tags

Hysteresis [+1..+-7C]: interval during which the status will remain as current value. Used to exclude border value instability

UI10 (10 Universal inputs + Thermostat) (0.3) ×

All Enabled Disabled
Thermostat control
Setpoint
Hysteresis
Stand-by mode

Port 1	
Port 2	
Port 3	
Port 4	
Port 5	
Port 6	
Port 7	
Port 8	
Port 9	
Port 10	
Temperature sensor	
Thermostat	
Heating	
Cooling	

Hysteresis

±1°C (Comfort) ▼

±1°C (Comfort)

±2°C

±3°C (Night mode/Stand-by)

±4°C

±5°C (Freeze/overheat protection)

±6°C

±7°C

Stand-by mode: Stand-by mode / night mode

UI10 (10 Universal inputs + Thermostat) (0.3) ×

All Enabled Disabled

Thermostat control ✔ Setpoint Hysteresis Stand-by mode

Group addresses + Add 1 bit (boolean)

× 0/0/22 UI10 (10 Universal inputs + Thermostat) - Stand-by mode

Flags

F T R W

Tags

Port 1Port 2Port 3Port 4Port 5Port 6Port 7Port 8Port 9Port 10Temperature sensorThermostatHeatingCooling

Heating

Heating control: define either enable/disable heating thermostat functionality

- All
- Enabled
- Disabled
- Port 1
- Port 2
- Port 3
- Port 4
- Port 5
- Port 6
- Port 7
- Port 8
- Port 9
- Port 10
- Temperature sensor
- Thermostat
- Heating**
- Cooling

Heating control Heating output

Heating control **Flags**

Enabled F T R **W**

Heating can be enabled/disabled via control object

Group addresses ➕ Add 1 bit (boolean)

✕ 0/0/23 UI10 (10 Universal inputs + Thermostat) - Heating control

Q

Tags

Q No tags set

Heating output: define either disable/enable heating output via group address

UI10 (10 Universal inputs + Thermostat) (0.3) ×

All Enabled Disabled Heating control Heating output

Port 1
Port 2
Port 3
Port 4
Port 5
Port 6
Port 7
Port 8
Port 9
Port 10
Temperature sensor
Thermostat
Heating
Cooling

Group addresses + Add 1 bit (boolean)

× 0/0/24 UI10 (10 Universal inputs + Thermostat) - Heating output

Q

Flags F T R W

Tags

Q No tags set

Cooling

Cooling control: define either enable/disable cooling thermostat functionality

UI10 (10 Universal inputs + Thermostat) (0.3) ×

All Enabled Disabled Cooling control Cooling output

Port 1
Port 2
Port 3
Port 4
Port 5
Port 6
Port 7
Port 8
Port 9
Port 10
Temperature sensor
Thermostat
Heating
Cooling

Cooling control Enabled

Flags F T R W

Cooling can be enabled/disabled via control object

Group addresses + Add 1 bit (boolean)

× 0/0/25 UI10 (10 Universal inputs + Thermostat) - Cooling control

Q

Tags

Q No tags set

Cooling output: define either disable/enable cooling output via group address

UI10 (10 Universal inputs + Thermostat) (0.3) ×

All Enabled Disabled

Cooling control Cooling output

Port 1
Port 2
Port 3
Port 4
Port 5
Port 6
Port 7
Port 8
Port 9
Port 10
Temperature sensor
Thermostat
Heating
Cooling

Group addresses + Add 1 bit (boolean)

× 0/0/26 UI10 (10 Universal inputs + Thermostat) - Cooling output

Q

Flags

F T R W

Tags

Q No tags set