

Embedded Systems SIA, VAT No LV40003411103  
47. Katolu str., Riga, LV 1003, LATVIA  
Phone: +371 67648888, fax: +371 67205036, e-mail: [sales@openrb.com](mailto:sales@openrb.com)

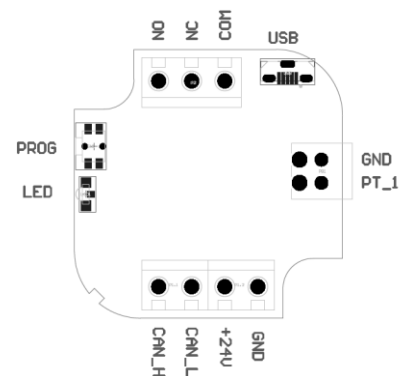
## CANx 1 x 6A Relay / 1 x PT1000 sensor input, flush-mounted

### ENG - Data sheet

Issue date 5.02.2019

### Application

CANx 1 x 6A Relay / 1 x PT1000 sensor input device is designed to be used in building and industrial automation applications as an extension module to LogicMachine series devices based on CAN FT bus. The configuration and monitoring of the device is done through separate LogicMachine CANx application. The device is designed for flush-mounting.



<b>Types of product</b>	
CAN-R1-PT1000	CANx 1 x 6A Relay / 1 x PT1 000 sensor input, flush-mounted
<b>Technical data</b>	
Power supply	12-32V DC
Power consumption (at 24V)	11 mA
DC overvoltage protection:	50 V
Wrong wiring polarity protection	Yes
<b>Interfaces and operating elements</b>	
Relays	1
Rated voltage/current	250V AC (10 A), 30V DC (5 A)
PT1000 temperature sensor input	1
USB	1 microUSB for upgrade firmware flashing
CAN FT	1
LED	1 – CPU load, 1 - Error
Programming/reset button	1
<b>Clamps and enclosure</b>	
CAN FT Terminal	0.8mm <sup>2</sup>
Relays	5 mm <sup>2</sup>
Power supply	5 mm <sup>2</sup>
Color	Black / Gray
Dimensions	53(W)x25(H)x43(L) mm
Protection	IP20 according to EN 60529
Usage temperature	-5C ... +55C
Storage temperature	-20C ... +70C
Net weight:	40 g
Gross weight	50 g
<b>Standards and norms compliance</b>	
CE conformity	EMBS-CE-190223/11 Electromagnetic compatibility
EMC	EN61000-6-1, EN61000-6-3



## **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

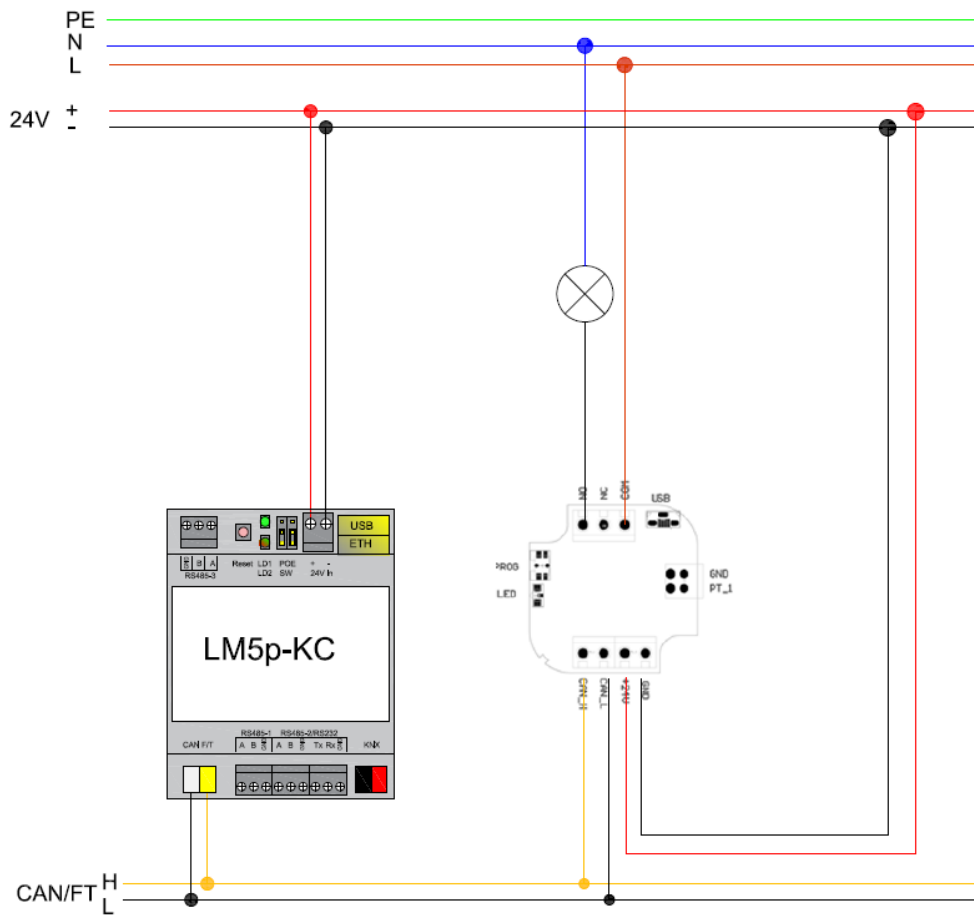
Press programming button for 5 seconds, the RED LED blinks 2 times, then release button - GREEN lights up shortly.

## **Programming physical address**

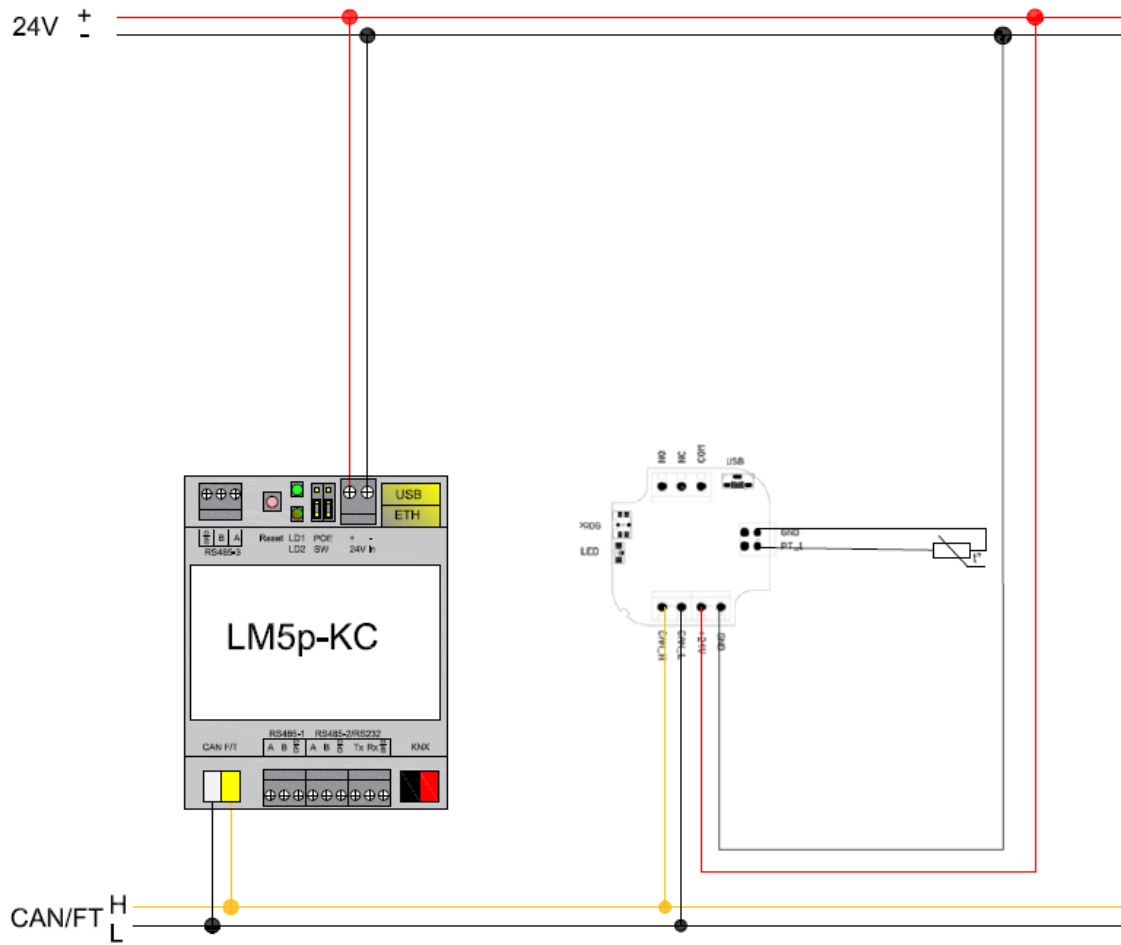
Press programming button shortly, GREEN LED lights up. After you have programmed address from CANx application, it will automatically switch off the LED.

# Connection diagrams

## Relay/Load



# PT1000 input



# CANx software settings

## Relay

R1 (1 Relay output + PT1000 input/thermostat) (0.1)

Device location + Add

- No location - ×

All Enabled Disabled

Relay

Thermostat - General

Thermostat - Heat / Cool

Relay ✓ Relay status ⊖

### Relay

Normal - Off after power-up

### Flags

F T R W

Group addresses + Add 1 bit (boolean)

No group addresses selected

### Tags

No tags set

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

### Relay mode:

Normal – Off after power-up

Inverse – Off after power-up

Normal – On after power-up

Inverse – On after power-up

**Group addresses** – you can assign group addresses from the predefined list or add manually by clicking on ADD button. You can assign max 16 group addresses to one object / output.

## Relay status

R1 (1 Relay output + PT1000 input/thermostat) (0.1)

Device location + Add

- No location - ×

All Enabled Disabled

Relay

Thermostat - General

Thermostat - Heat / Cool

Relay ✓ Relay status ✓

### Relay status

Normal

### Flags

F T R W

Group addresses + Add 1 bit (boolean)

No group addresses selected

### Tags

No tags set

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

**Output status:** Disabled, Normal, Inverse

**Group addresses** – you can assign group addresses from the predefined list or add manually by clicking on ADD button. You can assign max 16 group addresses to one object / relay status

### Thermostat General

R1 (1 Relay output + PT1000 input/thermostat) (0.1)    Device location + Add    - No location - x

---

All    Enabled    Disabled

Relay

Thermostat - General

Thermostat - Heat / Cool

Sensor value ⊖    Value correction    Thermostat ⊖

**Sensor value**

PT1000 - read-only v

**Sensor value:**

*PT1000 – ready-only* – PT1000 value for reading only

*PT1000 – send value every 20 seconds* – send the value into the CAN bus every 20 seconds.

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

**Value correction:** temperature value compensation (-7..+7C; no correction)

R1 (1 Relay output + PT1000 input/thermostat) (0.1)    Device location + Add    - No location - x

---

All    Enabled    Disabled

Relay

Thermostat - General

Thermostat - Heat / Cool

Sensor value ⊖    Value correction    Thermostat ⊖

**Value correction**

+2°C v



**Thermostat:** define either the thermostat functionality is enabled. Default flags: write (W)

R1 (1 Relay output + PT1000 input/thermostat) (0.1)    Device location + Add - No location - ×

---

All   Enabled   Disabled    Sensor value ⊖   Value correction   Thermostat ⊕   Setpoint   Hysteresis   Stand-by mode

Relay

**Thermostat - General**

Thermostat - Heat / Cool

**Thermostat**    **Flags**

Enabled ▼    F   T   R   **W**

*Thermostat can be enabled/disabled via control object*

**Group addresses** + Add 1 bit (boolean)

**Tags**

**Setpoint:** base setpoint settings. Default flags: write (W)

R1 (1 Relay output + PT1000 input/thermostat) (0.1)    Device location + Add - No location - ×

---

All   Enabled   Disabled    Sensor value ⊖   Value correction   Thermostat ⊕   **Setpoint**   Hysteresis   Stand-by mode

Relay

**Thermostat - General**

Thermostat - Heat / Cool

**Group addresses** + Add 4 byte floating point    **Flags**

   F   T   R   **W**

**Tags**

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

R1 (1 Relay output + PT1000 input/thermostat) (0.1)    Device location + Add - No location - ×

---

All   Enabled   Disabled    Sensor value ⊖   Value correction   Thermostat ⊕   Setpoint   **Hysteresis**   Stand-by mode

Relay

**Thermostat - General**

Thermostat - Heat / Cool

**Hysteresis**

±1°C (Comfort) ▼

**Stand-by mode:** Stand-by mode / night mode. Default flags: write (W)

R1 (1 Relay output + PT1000 input/thermostat) (0.1) Device location + Add - No location - ×

All Enabled Disabled Sensor value ⊕ Value correction Thermostat ⊕ Setpoint Hysteresis Stand-by mode

Relay

Thermostat - General

Thermostat - Heat / Cool

Group addresses + Add 1 bit (boolean)

Q No group addresses selected

Flags F T R **W**

Tags

Q No tags set

**Heating control:** define either enable/disable heating thermostat functionality. Default flags: write (W)

R1 (1 Relay output + PT1000 input/thermostat) (0.1) Device location + Add - No location - ×

All Enabled Disabled Heating control ⊕ Heating output Cooling control ⊕ Cooling output

Relay

Thermostat - General

Thermostat - Heat / Cool

Heating control

Enabled ▾

Heating can be enabled/disabled via control object

Flags F T R **W**

Group addresses + Add 1 bit (boolean)

Q No group addresses selected

Tags

Q No tags set

**Heating output:** define either disable/enable heating output via group address. Default flags: transmit (T), read (R).

R1 (1 Relay output + PT1000 input/thermostat) (0.1) Device location + Add - No location - ×

All Enabled Disabled Heating control ⊕ Heating output ⊕ Cooling control ⊕ Cooling output

Relay

Thermostat - General

Thermostat - Heat / Cool

Group addresses + Add 1 bit (boolean)

Q No group addresses selected

Flags F **T** **R** W

Tags

Q No tags set

**Cooling control:** define either enable/disable cooling thermostat functionality. Default flags: write (W)

R1 (1 Relay output + PT1000 input/thermostat) (0.1)    Device location + Add - No location - ×

---

All Enabled Disabled    Heating control ☑   Heating output   Cooling control ☑   Cooling output

Relay

Thermostat - General

Thermostat - Heat / Cool

**Cooling control**    **Flags**

Enabled ▾    F   T   R   **W**

*Cooling can be enabled/disabled via control object*

**Group addresses** + Add 1 bit (boolean)

**Tags**

**Cooling output:** define either disable/enable cooling output via group address. Default flags: transmit (T), read (R).

R1 (1 Relay output + PT1000 input/thermostat) (0.1)    Device location + Add - No location - ×

---

All Enabled Disabled    Heating control ☑   Heating output   Cooling control ☑   Cooling output

Relay

Thermostat - General

Thermostat - Heat / Cool

**Group addresses** + Add 1 bit (boolean)    **Flags**

   F   **T**   **R**   W

**Tags**