# Future-proof technology with familiar concepts

LogicMachine.net

## Why is there a need for a new system?

- When newest specification was made 25 years ago, such things as encryption, security and usability were not important
- Nobody thought about ecosystem concept: not only protocol specification, but also a universal way of commissioning and integration
- We've chosen to build something new based on time-proven technologies. CAN FT was selected as base media. It is widely used in automotive and space industries. CAN FT is the latest version of international standard ISO 11898-3:2006

## Advantages for electricians

- No efforts are needed to learn something new, same principles as KNX.
  If you know KNX, you know CANx
- Commissioning software is free of charge
- Easy remote configuration, diagnostics and maintenance of your installation
- CANx system can check device health and report errors automatically
- Seamlessly compatible with KNX standard, but better and cheaper
- No knowledge needed for device replacement

## Unique features

- 48 kbit bandwidth
- 1:1 mapping to KNX
- High reliability due to internal hardware watchdogs and monitoring
- Direct communication can be disabled for improved security. This way only group communication works, no parameters or addressing can be modified without the master code
- Highly secure and encrypted communication between system elements, web and cloud services
- Close partnership and integration with Microsoft tools – the most advanced data visualization, big data and analytics provider

Microsoft Azure
Certified

## Simple yet powerful configuration tool

- Multi-platform web-based app on LogicMachine. No more limitation to Windows OS only
- ETS project can be imported and enriched with semantics
- Easy import/export of project data
- Direct or group-based communication
- Multiple modes (for example: I/O, Fancoil, Shutter controller) per device without additional firmware change
- Direct in-place device configuration even without project data
- Project data can be restored by reading configuration from all devices in the installation
- Dedicated semantics dictionary for native IoT integration

**Embedded Systems has developed CANx protocol, produces and supports controllers based on this technology**

## The range of products includes:

- System devices e.g. line repeater / router
- I/O devices e.g. Universal I/O, Relay module, Flush-mounted binary input, Shutter actuator
- Gateways e.g. KNX-CAN, CAN-DALI
- Sensor platform / Touch push-button
- LogicMachine – logic engine, visualization platform, CANx device configuration, cross-standard gateway, cloud integration, voice control

embedded systems

www.canx.info

# CANx configuration software

Group addresses | Devices | Line scan | Device scan | Write address | Reports | Monitor | Notes | Tools

Name or address | Datatype: - All datatypes - | Tags: All tags / Any tag

Import KNX project | Add

| Address | Name | Datatype | Tags | Properties |
|---|---|---|---|---|
| 0/0/1 | Relays - Relay 1 | 0.1. 1 bit (boolean) | | L E P R |
| 0/0/2 | Lights bedroom | 0.1. 1 bit (boolean) | | L E P R |
| 0/0/3 | Ventilation 1 | 0.1. 1 bit (boolean) | | L E P R |
| 0/0/4 | canX input 4 | 0.1. 1 bit (boolean) | | L E P R |
| 0/0/5 | Ventilation 2 | 0.1. 1 bit (boolean) | | L E P R |
| 0/0/6 | Relays - Relay 3 | 0.1. 1 bit (boolean) | | L E P R |
| 0/0/7 | Input 1 - Long press | 0.1. 1 bit (boolean) | | L E P R |
| 0/0/8 | Relays - Relay 2 | 0.1. 1 bit (boolean) | | L E P R |
| 0/1/4 | canX actuator port 2 | 0.1. 1 bit (boolean) | | L E P R |
| 1/1/7 | Heating office | 0.1. 1 bit (boolean) | | L E P R |

Relays (0.3)

All | Enabled | Disabled

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

Relay 1 | Relay status 1

**Relay 1** *1 bit (boolean)*

Disabled

Disabled
Normal - Off after power-up
Inverse - Off after power-up
Normal - On after power-up
Inverse - On after power-up

Group addresses | Devices | Line scan | Device scan | Write address | Reports | Monitor | Notes | Tools

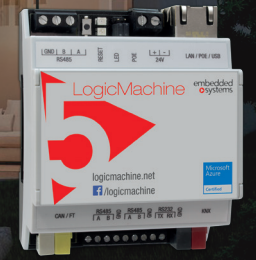
Line: 0. 0. New line | Node: 5

Filter state: All | OK | Error

Filter mode: All | Enabled | Disabled

Write config

| ID | State | Type / Name | Data type | Value | Mode | Flags | Groups |
|---|---|---|---|---|---|---|---|
| 14 | | A Output 14 | 1 bit (bool) | - | Disabled | F T R W | 0 / 20 |
| 15 | | A Output 15 | 1 bit (bool) | 0 | Normal - Off after power-up | F T R W | 0 / 20 |
| 16 | | A Output 16 | 1 bit (bool) | 0 | Normal - Off after power-up | F T R W | 0 / 20 |
| 17 | | S Input 1 | 1 bit (bool) | 0 | Switch - Toggle | F T R W | 0 / 20 |
| 18 | | S Input 2 | 1 bit (bool) | 0 | Switch - Toggle | F T R W | 0 / 20 |
| 19 | | S Input 3 | 1 bit (bool) | 0 | Switch - On/Off | F T R W | 0 / 20 |
| 20 | | S Input 4 | 1 bit (bool) | 1 | Switch - Off/On (inverse) | F T R W | 0 / 20 |
| 21 | | S Input 5 | 1 bit (bool) | 0 | Button - On (optional long press) | F T R W | 0 / 20 |
| 22 | | S Input 6 | 1 bit (bool) | 0 | Button - Off (optional long press) | F T R W | 0 / 20 |
| 23 | | S Input 7 | 1 bit (bool) | - | Disabled | F T R W | 0 / 20 |
| 24 | | S Input 8 | 1 bit (bool) | - | Disabled | F T R W | 0 / 20 |
| 25 | | S Input 9 | 1 bit (bool) | - | Disabled | F T R W | 0 / 20 |
| 26 | | S Input 10 | 1 bit (bool) | - | Disabled | F T R W | 0 / 20 |

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