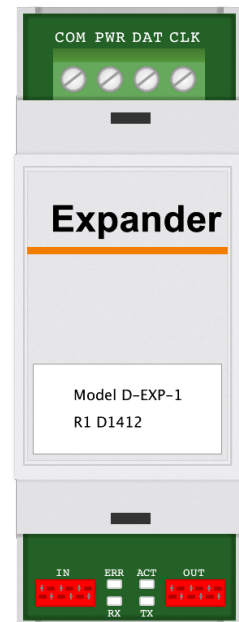


# DOMIQ/Expander

The **DOMIQ/Expander** module allows to control **Satel** expanders directly from the **DOMIQ** system. Using this module you can control up to 32 **Satel** expanders (the detailed list of supported models is at the end of this leaflet).

Module is designed to be installed in the installation closet on the 35mm DIN rail. Before installation on DIN rail please push lock on the bottom of the module.



## Connecting to other DOMIQ modules

- Before connecting **DOMIQ/Expander** to **DOMIQ/Base** or any other **DOMIQ** modules, make sure that the **Base** module is turned off.
- Connect the **IN** connector using ribbon cable to the **EXT** connector of **Base** module or to the **OUT** connector of other **DOMIQ** extension module.

## Power

**DOMIQ/Expander** module requires external 12V DC power supply. Power supply should be connected to the **PWR** (positive) and the **COM** (negative) terminals. Module is protected against reverse polarity.

In case if you plan to use the same power supply to connect expanders, select power supply with power adequate to the number of expanders and their peak power consumption. In this case it is recommended to connect expanders directly to power supply.

Length and diameter of wires used to power expanders should be chosen so that the voltage drop does not exceed 1V in relation to the output voltage of the power supply.

It is acceptable to use separate power supplies for each expanders or groups of expanders.

## Expanders bus

Bus should be made using straight cable (do not use twisted-pair cable - UTP, STP, FTP). Maximum bus length must not exceed 1000m. Bus wires should be connected to the **DAT** and **CLK** terminals. In case when **DOMIQ/Expanders** and expanders are powered by separate power supplies, it is required to connect the **COM** terminals of **DOMIQ/Expander** module and expanders (also between expanders).

The table below presents the number of wires required to connect device to bus using 0,5mm diameter wires .

Distance from module	DAT	CLK
up to 300m	1	1
300 – 600m	2	2
600 – 1000m	2	2

## Configuration and expanders detection

System is configured using simple user interface, which is an integral part of **DOMIQ/Base** configurator.

The screenshot shows a web-based configuration interface for DOMIQ expanders. It features a table with columns for 'Expander', 'Input', 'Command', 'Description', and 'Groups'. The table lists 31 expanders, with the first few (0-8) having 'Test' commands and 'Assign groups' descriptions. To the right, there is a section for 'Outputs' with a grid of checkboxes for each of the 31 expanders, labeled '0 - Offline' through '31 - Offline'. At the bottom right of the interface, there are three buttons: 'Scan', 'Save', and 'Revert'.

During start, **DOMIQ/Expander** initiates scan of expanders present in installation. Present expanders are marked with green color.

In case of connecting new expanders or changing existing expanders addresses, it is required to rescan installation using the **Scan** button.

## Control

System control is based on mapping created during configuration - binary input violation switches output(s) or group of outputs based on programmed rules.

Moreover, connection between **DOMIQ/Expander** and **DOMIQ/Base** allows to control expanders using any other ways available in the **DOMIQ** system, e.g: using visualization, **Remote** application, based on events, timers, etc. Inputs and outputs in expanders can trigger events in **Base** module.

State of all inputs and outputs is present in the **DOMIQ/Base**, what allows to visualize them in the **DOMIQ** system.

Thank to integration capabilities of the **DOMIQ** system, expanders can also be controlled based on signals from other subsystems of smart home, for example as reaction to arming the alarm system or temperature changes, etc.

Maximum (assuming 32 expanders connected to the installation) delay in reading information about change of input state is 0,46s.

Maximum (assuming 32 expanders connected to the installation) delay in sending command to expander is 0,46s.

## Supported expanders

Due to changes in firmware of Satel expanders, **DOMIQ/Expander** supports expanders manufactured since 2012. Older expanders need to be updated before connecting to installation.

**DOMIQ/Expander** support following **Satel** expanders:

- **Satel INT-IORS** (8 binary inputs, 8 relays 16A)