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LEGAL DISCLAIMER

Please be aware, that any alteration made to the VELUX® products using our units voids VELUX® warranty.

You are asked to remove the CE-marking from the modified VELUX® product, as when modified, it is no longer in force.

Removing the rain sensor creates a risk of water damage.

Your installation has to be protected against unexpected movement and provide a safety against entrapment and meet other requirements in accordance with applicable regulations.

WHAT EXACTLY IS THE SOLUTION?

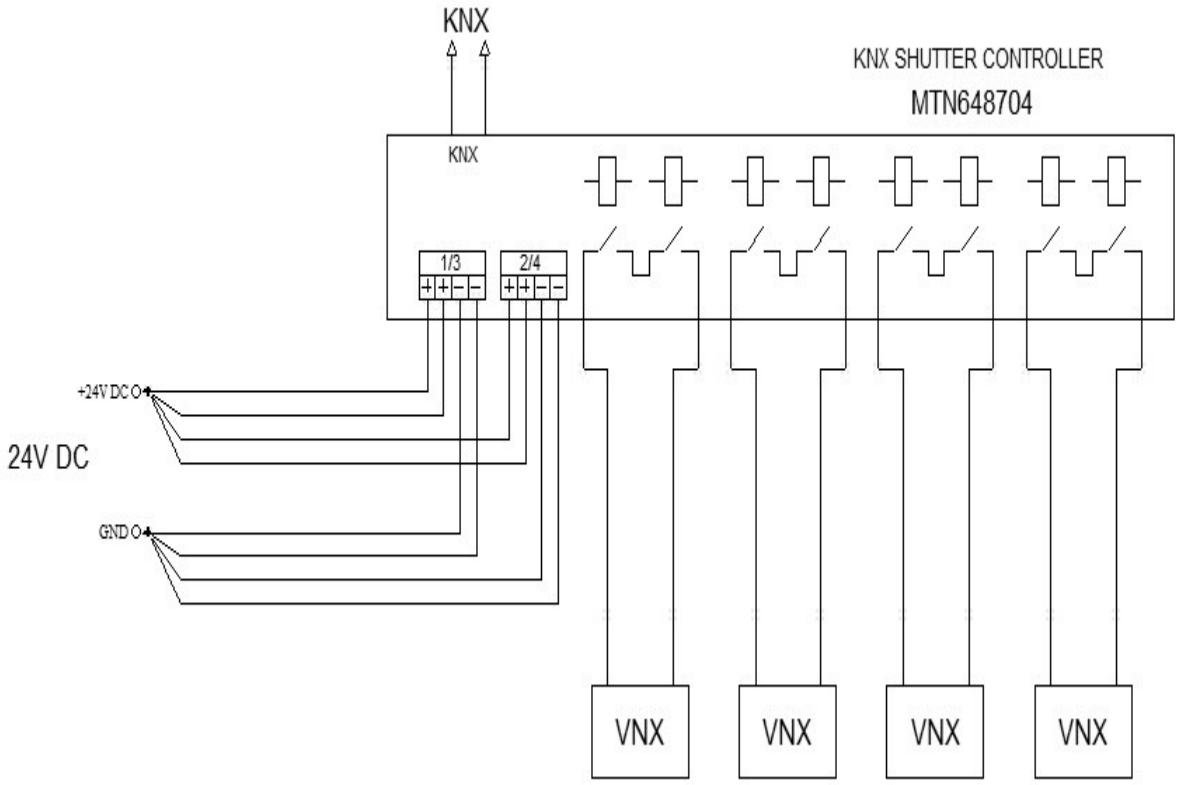
Our solution are a ready-made electronic modules, which replace the original, delivered with product.

HOW IS IT CONTROLLED?

All VNX series modules have a 2-pole power connector. This connector is used to supply 24V DC for the card to operation. The choice of the direction of motion is determined by a polarity of the applied voltage. In other words - reversing polarity (swapping + and -) will change the movement to an opposite direction. The modules are equipped with an intelligent electronics that detects reaching the end position and

automatically switches off the drive to a stand-by mode.

An exemplary method is shown in the following scheme:



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HOW DO I INTERFACE THE MODULES WITH A KNX NETWORK? WHERE CAN I DOWNLOAD THE ETS FILES?

For the operation our modules require only a pair of power supply cables. This solution is dictated in many ways. First of all, the device connected directly to the KNX bus (or any other data-exchange system) must have a built-in chip, which will ensure the implementation of the communication protocol stack. These chips are not cheap, and would greatly impact the final price of a VNX module. Therefore, the role of controller coupling modules serve VNX "shutter controller" units, each of which is able to handle multiple lines simultaneously. In addition, a very simple way to control through power connection allows unlimited control in any way - not only to a KNX, but also to LCN, LOXONE, and many others (wall buttons, surveillance system, etc.).

WHAT TYPES OF DEVICES ARE SUPPORTED?

- **windows actuato**r KMG100 family
- **windows actuator** KMG100K family
- **blinds** SML100 and MML family

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WHAT COMPONENTS DO I NEED FOR ALL THE INSTALLATION?

When designing the electrical installation, it has to be determined of which window system - and with what options - is going to be used. Types & amount of window and its accessories will be used to determine:

- the amount and type of **VNX modules**
- the amount of **"shutter controllers"**
- a **power supply** unit adequate to a power consumption

VNX module during start-up consumes up to 0.65A. Multiplying this figure by the number of units will result in the maximum power consumption. For example:

$$I_N = 0.65\ [A] \times 12\ \text{modules} = 7.8\ [A]$$

If you need to calculate the power rating, a following formula is used:

$$P = I_N \times U = 7.8\ [A] * 24\ [V] = 187.2\ [W]$$

WHAT CABLES ARE SUITABLE FOR INSTALLATION?

The electrical wires with a cross-section of at least 0.75mm^2.

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WILL THE RAIN SENSOR OPERATE?

The idea of the intelligent building is distributing function between the two groups:

- **sensors** which collect the informations from the environment (buttons, sensors of temperature & motion, etc.)
- **actuators** that perform a predetermined action depending on the information provided by the sensors

VNX modules only serve as an actuators and original rain sensors will not work with them, as they would remain outside of control of intelligent building system. If you want to have a rain protection - it is advised to incorporate to a project a KNX weather station, that will enrich the capabilities of the installation.

WHILE INSTALLATION OF KMG100 MODULE I FOUND A FLAT RIBBON CABLE WITH TWO SENSORS. WHAT DO I DO WITH THESE?

You do nothing. The only thing that has to be soldered are the wires of the electric motor.

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PARTNER KNX

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VNX-ADV MODULE STARTS FOR A MOMENT AND IMMEDIATELY STOPS

VNX-ADV series modules have an option of a programmable torque limit configuration at which the drive is switched off. In this way the risk of damaging a roller shutter is minimized, whenever a motion problem occures. The modules come pre-programmed with a default falue of 1650 (in range of 0...3500), and this value suits most of the installations. However - especially to the large windows and roller blinds surface - this value may need to be changed. In order to do so, You may use the VNX Setup Tool.