KNX FS6

Shading Control for Six Facades

Technical specifications and installation instructions

1.   Description

The **KNX FS6 facade control** is a module for controlling shade in the KNX bus system. The device affords extensive matching options for building situation and shading type (e. g. facade alignment, slat width).

Up to six facades/shading channels are controlled according to brightness and the sun's position. In addition, both slats and shade angle can be positioned according to the sun's angle. Rain, wind and temperature (inside and outside) can be taken into account.

Time switchings are output via the integrated calendar and weekly timer. Links using AND/OR are also possible.

Functions:
- **6-channel shade control** dependent on brightness and the sun's position, with shade angle and slat adjustment
- **4 temperature switching outputs** (threshold-dependent)
- **3 wind speed switching outputs** (threshold-dependent)
- **4 brightness switching outputs** for sun/daytime (threshold-dependent)
- **3 twilight switching outputs** for night (threshold-dependent)
- **Calendar timer** with 3 periods, in which the system can be switched on and off twice daily
- **Weekly timer** with 4 periods per day
- **8 AND and 8 OR logic gates** each with 4 inputs. 16 logic inputs (in the form of communication objects) are available as inputs for the logic gates. The output of each gate can be configured optionally as 1-bit or 2 x 8-bit

Configuration is made using the KNX software ETS. The **product file** can be downloaded from the Elsner Elektronik homepage on **www.elsner-elektronik.de** in the "Service" menu.

1.1. Deliverables

- Facade control module in series installation housing

1.2. Technical data

Housing	Plastic
Color	White
Mounting	Series installation on mounting rail
protection category	IP 20
Dimensions	approx. 53 x 88 x 60 (W x H x D, mm), 3 modules
Weight	approx. 100 g
Ambient temperature	operation -5…+45 °C, storage -25…+70 °C
Ambient humidity	max. 95% RH, avoid condensation
Operating voltage	KNX bus voltage

Bus current	max. 16 mA
Data output	KNX +/- Bus connector terminal
BCU type	unit's own microcontroller
PEI type	0
Group addresses	max. 254
Assignments	max. 255
Communication objects	252

The product conforms with the provisions of EU directives.

2.   Installation and start-up

2.1.   Installation notes

Installation, testing, operational start-up and troubleshooting should only be performed by an electrician.

CAUTION!
Live voltage!
There are unprotected live components inside the device.
- National legal regulations are to be followed.
- Ensure that all lines to be assembled are free of voltage and take precautions against accidental switching on.
- Do not use the device if it is damaged.
- Take the device or system out of service and secure it against unintentional use, if it can be assumed, that risk-free operation is no longer guaranteed.

The device is only to be used for its intended purpose. Any improper modification or failure to follow the operating instructions voids any and all warranty and guarantee claims.

After unpacking the device, check it immediately for possible mechanical damage. If it has been damaged in transport, inform the supplier immediately.

The device may only be used as a fixed-site installation; that means only when assembled and after conclusion of all installation and operational start-up tasks and only in the surroundings designated for it.

Elsner Elektronik is not liable for any changes in norms and standards which may occur after publication of these operating instructions.

2.2. Mounting

Install and use only in dry conditions in a room.
Avoid condensation.

The evaluation unit of **KNX FS6** is designed for series installation on mounting rails and occupies 3U.

Nach dem Anlegen der Busspannung befindet sich das Gerät einige Sekunden lang in der Initialisierungsphase. In dieser Zeit kann keine Information über den Bus empfangen oder gesendet werden.
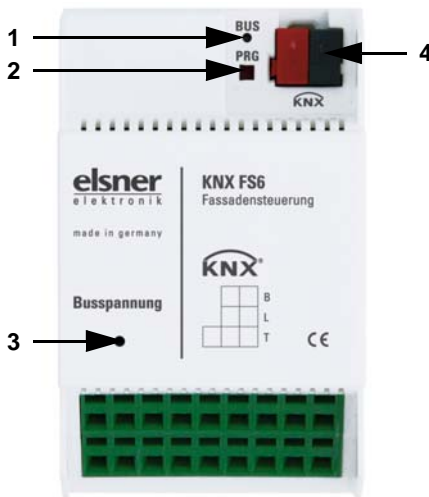
2.2.1. Device/connection design

Fig. 1
1   Programming LED
2   Programming buttons
3   "Bus voltage/operation" LED
4   Bus connections
     (KNX terminal +/-)

The connector strip is not occupied.