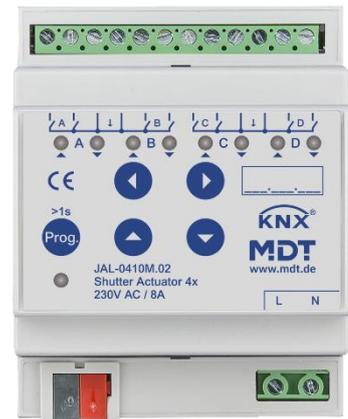


## Shutter Actuator, with travel time measurement [JAL-0x10M.02]

Shutter actuators from MDT are equipped with many additional functions and can do much more than just move the blind or roller shutter up and down. For example, they continuously calculate the position of the sun in order to shade where it is actually necessary. As a result, rooms are not unnecessarily darkened. Automatic travel time measurement makes commissioning much easier and saves valuable time.

### Automatic shading with slat adjustment

The function for automatic shading is directly integrated in MDT shutter actuators. The position of the sun (sun height and sun angle) is continuously calculated, so that only those windows are shaded during the day that are exposed to the sun. For this to work, the shutter actuator only needs the brightness values, for example from the MDT weather station, in addition to the location, time and date. With this information, the roller shutters move to two different sun protection positions and blinds adjust the slats according to the position of the sun. The automatic shading can be set individually and extensively for each channel. The compass direction can be set individually for each window and any shading caused by neighbouring buildings can be taken into account. If the automatic shading is interrupted by moving up or down manually, it can be reactivated at any time by reaching the upper position or via a release object.



### Automatic travel time measurement

The automatic travel time measurement calculates the travel times for up and down channel by channel, so different travel times are possible for each window. The automatic measurement is compatible with mechanical and electrical limit switches and the continuous travel time correction ensures an optimum travel time setting for the motors.

### Wind alarm, rain alarm, fire alarm, lock function

If, for example, the wind sensor of the MDT weather station triggers a wind alarm, all blinds and awnings can be automatically moved into their protective position. If the smoke detector or the fire alarm system reports a fire, all blinds immediately move up to clear the escape route. If the rain sensor detects rainfall, the blinds on the weather side lower or the awning retracts for protection. For each alarm type, different actions can be parameterised during and after the alarm and the priority of the alarms can be set. The various lock functions allow, for example, the deactivation of the automatic shading after a manual operation by up/down command.

### **Extended frost/ice protection for blinds**

At temperatures below 3 degrees Celsius and simultaneous rainfall, the actuator protects the mechanics of the blinds by a lock. After exceeding an adjustable temperature and a delay time, the blinds are released again.

### **Air function and lock-out protection**

If the state of the window is detected, for example, by means of reed contacts and an MDT binary input, the shutter actuator can distinguish between open, tilted and closed windows and perform different functions. If the patio door is tilted when the shading is closed, the slats can be turned for ventilation or the roller shutter can be automatically opened a few centimetres. If the door is opened, the shading can open completely and at the same time be blocked against automatic lowering in order to realise a lock-out protection. The manual control remains active at all times and central commands can be repeated when the door or window is closed.

### **Scenes and automatic functions**

The extended scene function can not only move to positions, but also activate and deactivate any locks or a lower limit. For blinds, it is possible to change only the slat position. Two automatic blocks with 4 positions each can be activated by a 1-bit telegram.

### **Extensive status information for visualisation**

Information such as the current height position (1 byte), current slat position (1 byte), current/last direction (1 bit), status "shading state" (1 bit), upper and lower position (1 bit) and status "lock/alarm" (1 bit), can be displayed.

### **Plain text diagnosis with 14 Byte object**

Status of the automatic shading function, by displaying: Release or lock, active brightness threshold, position of the sun (azimuth and elevation). Each channel also has a diagnostic object that outputs the last action (e.g., alarm status, ventilation position or lock). The diagnostic objects save a lot of time when checking and troubleshooting and make commissioning easier.

### **Updateable via DCA**

If necessary, the Shutter Actuators can be updated via the MDT Update Tool (DCA). The download is available free of charge at [www.mdt.de](http://www.mdt.de) and [www.knx.org](http://www.knx.org).

### **Long Frame Support**

The MDT Shutter Actuator supports "long frames" (longer telegrams). These contain more user data per telegram, which significantly reduces the programming time with the ETS.