

OPEN / CLOSE Controller for 12-24V DC-Motors DMS 5 / DMS U5

with auxiliary inputs for group and central control

SPECIAL FEATURES:

- 1-button or 2-button motor control
- Electronic pushbutton interlock
therefore normal pushbuttons can be used
- Special louver blind mode
easy louver adjustment
- Automatic closing function with adjustable time
running time doubled by holding down the button
- Motor protection by limiting the running time

GENERAL:

The DMS 5 / DMS U5 electronic control unit is a universally applicable DC motor controller for clockwise/counter-clockwise rotation. It can be implemented as either a one-button or two-button controller.

Using the overriding (higher-ranking) auxiliary inputs, it is possible to combine several UMS 5 controllers to form “group” and “central” control systems. The motor running time can be limited, e.g. to prevent overloading the motor in the event of mechanical jamming. A comfortable, automatic and adjustable closing function prevents e.g. inadvertently leaving a skylight open.

In the case of louver blind controls, the individual louvers can be exactly adjusted or automatically set to a predefined angle on switching off.

APPLICATION:

Roller shutters and louver blinds, hinged shutters, skylights, smoke extractor hoods in fire protection systems, gate drives, valve controls etc.

OPERATION:

The DMS 5/U5 is actuated by standard commercially available pushbuttons or switches that do not require any mechanical interlock.

The desired operating direction is selected by briefly pressing and releasing the relevant local input VA (OPEN) or VZ (CLOSE). The drive moves to its end-position and the set operating time is run. Pressing the button (VA or VZ) again during the operating time stops the motor.

In the case of single-button motor control, both local inputs are connected to a single button. In this type of control system, the operating direction is changed after each press of the button (Open-Stop-Close-Stop).

Using the auxiliary inputs NA (OPEN) and NZ (CLOSE), any number of drives can be opened or closed simultaneously in a defined process, regardless of their current status. In the case of actuation by auxiliary (extension) unit, the motor only runs while the actuation command from the upstream group controller is active. If NA and NZ are active at the same time, NA has priority. As long as either NA or NZ is active, the local inputs are disabled.

If the DMS 5/U5 is used as a group controller, the auxiliary inputs are not timer-controlled. Consequently, the subordinate control units can be maintained in a desired position for any required duration (e.g. by wind monitor).

In louver blind mode, after a short press of a local input button, the drive is immediately stopped again. Holding down the button then causes the drive to continue to its end-position. This mode enables the user to adjust the louvers of the blind by a series of short presses. In the case of single-button motor control, the direction of rotation of the motor is not changed if the button is pressed repeatedly in rapid succession. This feature enables louver blind louvers to be more easily adjusted.

If automatic reverse is set, the drive starts moving in the CLOSE direction after the set reverse time-delay has elapsed. The timer is started by the local input VA. If VA is held down for longer than 2s, the reverse delay is doubled. In louver blind mode, instead of the closing function, a counter-direction pulse is set to ensure automatic positioning of the louvers after a motor stop.

The “Motor centrally controllable by pushbutton” mode (Z) is provided to enable simple central control in smaller systems without an upstream group control unit. In this case, the auxiliary inputs can be actuated by pushbuttons in the same way as the local inputs, except that the auxiliary inputs have priority.

TECHNICAL DATA:

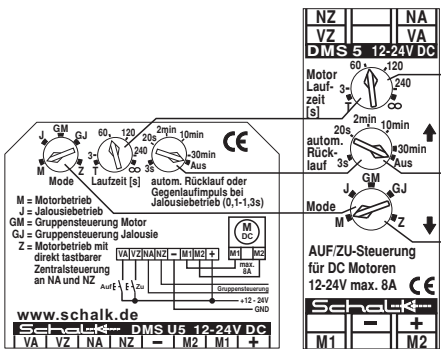
Operating voltage 12-24V DC $\pm 10\%$
 Control voltage = operating voltage
 Power input approx. 0.6W
 Running time 3 - 240 s
 Automatic reverse time 3 s - 30 min
 Counter-direction pulse 0.1 - 1.3 s
 Relay switchover pause 0.6 s
 Relay output UMS5 12-24V DC max. 8A

Ambient temperature -10°C to +45°C
 Insulated housing flameproof to VDE 0304 part 3, level FV 0
 Mounting of DMS 5 snap-on mounting on standard 35mm DIN rail DIN EN 50 022

Connections DMS 5 socket terminals with captive screws M3.5 (4x1.5mm²/2x2.5mm²/1x4mm²)
 Connections DMS U5 socket terminals with captive screws M3.5 (2x1.5mm²/1x2.5mm²)
 Dimensions DMS 5 18x88(45)x58mm³
 Installation depth DMS 5 55mm
 Dimensions UMS 5 43x43x18.5mm³
 Colour (RAL) grey 7035 / green 6029

ORDERING INFORMATION:

Part No.	Type	Description
DMS50K	DMS 5	OPEN/CLOSE controller 12-24V DC
DMSU5K	DMS U5	OPEN/CLOSE controller (UP) 12-24V DC for flush mounting



- Motor running time limit 3 to 240s
 T = pushbutton mode (motor only runs while input is actuated)
 ∞ = no running time limit
- Motor control: time for automatic closing function 3s to 30min
 Louver blind control: duration of counter-direction pulse 0.1 to 1.3s (scale not valid)
 Off = Function deactivated
- M=Motor control
 J=Louver blind control
 GM=Group controller for motor control
 GJ=Group controller for louver blind control
 Z=Motor centrally controllable by pushbutton

In GM and GJ modes, the relay outputs M1 and M2 are always active while the auxiliary inputs are activated. Consequently, continuous actuation (disabling of local inputs) by means of sensor contacts (e.g. wind monitor, rain sensor etc.) is possible.

TYPICAL APPLICATION.

