

Technical data | 17.04.2024

# ABB-free@home®

## BA-M-x.230.1.1

### Blind Actuator, 4-, 8-fold, MDRC



# 1 Product description

The device is a blind actuator for installing on a mounting rail. Depending on the model, the device has four or eight channels and serves as actuator for the activation of blinds, roller blinds or awnings.

The switching relays of the individual channels are locked against each other via software.

Advantages:

- 4/8 eight channels for the activation of 4/8 blinds, roller blinds or awnings
- Drives of 24 V AC to 230 V AC are supported.
- Two channels can always be protected with a common circuit breaker.



## Notice

Basic information about system integration is contained in the system manual. It is available for downloading at [www.abb.com/freeathome](http://www.abb.com/freeathome).

## 1.1 Dimensional drawings

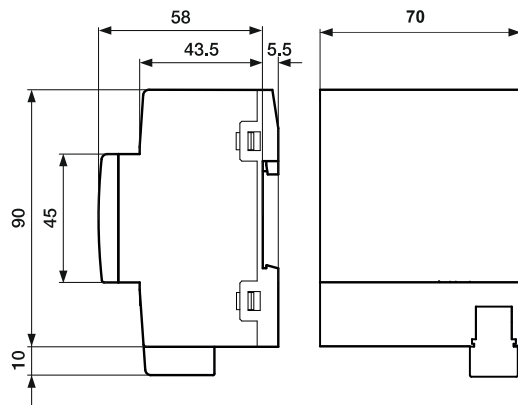


Fig. 1: Dimensions of 4-fold blind actuator MDRC (specifications in mm)

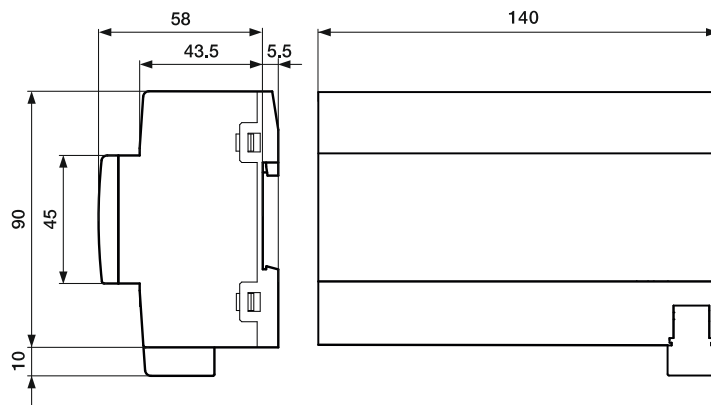


Fig. 2: Dimensions of 8-fold blind actuator MDRC (specifications in mm)

## 1.2 Circuit diagrams



### **Danger - Electric shock due to short-circuit!**

Risk of death due to electrical voltage of 100 to 240 V during short-circuit in the low-voltage line.

- Low-voltage and 100 - 240 V lines must not be installed together in a flush-mounted box!
- Observe the spatial division during installation (> 10 mm) of SELV electric circuits to other electric circuits.
- If the minimum distance is insufficient, use electronic boxes and insulating tubes.
- Observe the correct polarity.
- Observe the relevant standards.



### **Danger - Electric voltage!**

Install the device only if you have the necessary electrical engineering knowledge and experience.

- Incorrect installation endangers your life and that of the users of the electrical system.
- Incorrect installation can cause serious damage to property, e.g. due to fire.

The minimum necessary expert knowledge and requirements for the installation are as follows:

- Apply the "five safety rules" (DIN VDE 0105, EN 50110):
  1. Disconnect
  2. Secure against being re-connected
  3. Ensure there is no voltage
  4. Connect to earth and short-circuit
  5. Cover or barricade adjacent live parts.
- Use suitable personal protective clothing.
- Use only suitable tools and measuring devices.
- Check the type of supply network (TN system, IT system, TT system) to secure the following power supply conditions (classic connection to ground, protective earthing, necessary additional measures, etc.).
- Observe the correct polarity.

### BA-M-4.230.1.1

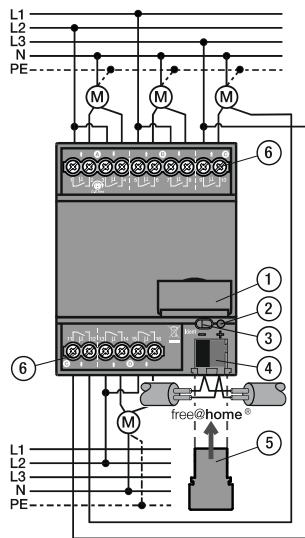


Fig 3: Device overview of 4-fold blind actuator MDRC

- [1] Label holder
- [2] Identification LED
- [3] Device identification during commissioning
- [4] Bus connection terminal
- [5] Cover cap
- [6] Load current circuit, per 4 screw-type terminals

### BA-M-8.230.1.1

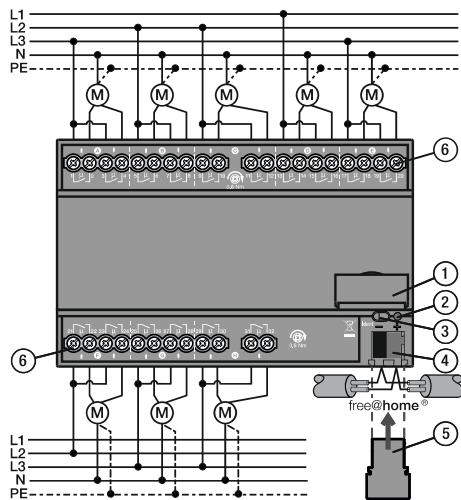


Fig 4: Device overview of 8-fold blind actuator MDRC

- [1] Label holder
- [2] Identification LED
- [3] Device identification during commissioning
- [4] Bus connection terminal
- [5] Cover cap
- [6] Load current circuit, per 4 screw-type terminals

## 2 Technical data

Designation	Value
Power	21 - 31 VDC
Bus subscribers	1 (12 mA)
Power loss $P_{16A}$ [A] BA-M-4.230.1.1 [B] BA-M-8.230.1.1	1.5 W 3.0 W
Module widths [A] BA-M-4.230.1.1 [B] BA-M-8.230.1.1	4 MW (70 mm) 8 MW (140 mm)
Bus connection	Bus connecting terminal, screwless
Line type	J-Y(St)Y, 2 x 2 x 0.8 mm
Nominal voltage	230 V AC, 50/60 Hz
Nominal current per output	6 A (AC1/AC3) at 230 V AC
Maximum load per output	Ⓜ: 1380 W
Wiring terminal Output	Combi-head screw-type terminal (PZ 1) 0.75 - 4 mm <sup>2</sup> fine-wire 0.75 - 4 mm <sup>2</sup> single-wire
Protection type	IP 20
Protection class	II
Overvoltage category	III
Pollution degree	2
Air pressure	≥ 80 kPa (corresponds to air pressure at 2,000 m above NN)
Ambient temperature	-5 °C - +45 °C
Storage temperature	-20 °C - +70 °C

Table 1: Technical data



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