

Switch Actuator AMI with current measurement [AMI-xx16.03]

MDT switch actuators with current measurement in industrial version. The AMI switch actuator is ideal where high inrush currents and C-loads of up to 200 μ F are expected. Currents up to 20 amperes per channel can be reliably measured and current monitoring can be set up.

Current measurement

The current value can be output per channel and as total current in milliamperes or amperes. Conversion into watts or kilowatts is possible via the fixed entry of a factor from voltage and $\cos \varphi$.



AMI-0416.03

Current monitoring

Current exceeding and underrun can be monitored per channel and actions can be triggered as a result. The output object of the monitoring can be "Switching" or "Scene". By means of an adjustable delay time, the actions can be delayed in the event of an exceedance, underrun and reset. Cyclical sending of the monitoring can be activated. Current exceedance can also be activated in the total current measurement.

Meter function

The AMI switch actuator calculates the energy consumption by means of current measurement and an individual factor from voltage and $\cos \varphi$, which can be entered in the ETS. The output is in Wh or kWh.

Error messages

If a load failure occurs when the contact is closed, or if a fault current occurs when the contact is open, this can be signalled by means of a 1 bit object.

Switch function

Separate settings for each channel allow, for example, operation as a normally closed or normally open contact, with a switch-on and/or switch-off delay. The status of each channel can be sent cyclically if required. An additional - inverted - status object can be activated.

Threshold function

With the threshold function, for example, the channel can be switched when a temperature or brightness is reached. Various actions can be set for exceeding/underrun of the threshold value.

Impulse function

Short switching pulses are used, for example, to open or close garage doors. The pulse duration is adjustable and pulses can be repeated once for certain applications.

Extended staircase light function

By pressing the push-button several times, the time in the switch actuator can be added up and the staircase lighting can remain switched on longer as required. Staircase lighting times can be set differently per floor using a 1-byte object. The pre-warning can flash the push-button LEDs via an object, for example. An actuator channel with staircase lighting function can be used in parallel as a switch channel by means of an additionally activatable switch object.

Extended logic and scene function

The extended logic function links the channel with up to two further logic inputs. AND, OR, XOR and gate functions are available for selection. The logic inputs can be inverted as desired and set to a defined value after bus voltage recovery. This prevents undesired behaviour after a restart. The extended scene function can lock or unlock in addition to switching on or off. Furthermore, saved scenes are retained when the application is reprogrammed.

Operating hours meter

The actuator has an operating hours meter for each channel, which can be reset via a 1-bit object. Alternatively, a service count down timer can be activated for each channel, which triggers a 1-bit alarm after previously defined operating hours and sends the remaining time as a 4-byte object.

Central switch function

The central switch function can be activated per channel. This function enables simple programming of central switch functions. If the communication object of the central function is triggered, all channels with activated central function are switched.

Lock function/ priority/ forced guidance

In addition to the usual lock function, the switch actuator also offers priority/forced guidance per channel. Priority/forced guidance can be used to switch a channel permanently ON or OFF. The behaviour in the event of bus voltage failure, bus voltage recovery, locking and unlocking or priority can be set differently. A fallback time can be set for the priority function, after which the channel returns to the normal state.

Status objects

The actuators have a status object for each channel with adjustable sending conditions and cyclical sending. In addition, an inverted status object can be activated. This can be used for visualisations or logics.

Long Frame Support

The AMI switch actuator supports “long frames” (longer telegrams). These contain more user data per telegram, which significantly reduces the programming time.

Variants

- AMI-0416.03 Switch Actuator 4-fold, 4SU MDRC, 16/20 A, 230 V AC, C-load, industry, 200 µF, current measurement
- AMI-0816.03 Switch Actuator 8-fold, 4SU MDRC, 16/20 A, 230 V AC, C-load, industry, 200 µF, current measurement
- AMI-1216.03 Switch Actuator 12-fold, 4SU MDRC, 16/20 A, 230 V AC, C-load, industry, 200 µF, current measurement