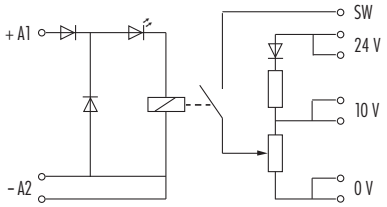
MURR ELEKTRONIK

## 270° and 10-turn Potentiometer with relay contact

### MPOT-REL
Potentiometer for set-point adjustment
set-point via relay or can be switched off
270° potentiometer

### MPOT-REL
Potentiometer for set-point adjustment
set-point via relay or can be switched off
3600° potentiometer /10-turn

**Circuit diagram**



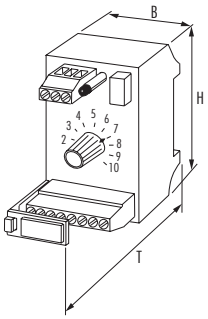

| Ordering data | 270° Art.-No. | 10-turn Art.-No. |
|---|---|---|
| Potentiometer value | | |
| 1 k-Ohm | **67551** | **67561** |
| 5 k-Ohm | **67555** | **67565** |
| 10 k-Ohm | **67552** | **67562** |
| 100 k-Ohm | **67553** | **67563** |

| Technical data | | |
|---|---|---|
| Pot. resistance tolerance | ± 20 % | ± 5 % |
| Linearity | ± 3 % | ± 0.25 % |
| Power: potentiometer | 1 W | 1.4 W (2 W at 40 °C) |
| Power: resistor | 0.25 W | |
| Control voltage/current | 24 V DC/20 mA | |
| Contact material/relay | Pd Ni-Au Rh | |
| Switched current min./max. | 1 mA/1 A | |
| Status indicator | green LED in control circuit | |
| Temperature range | 0…+60 °C | |
| Mounting method | DIN-rail mounting EN 60715 | |
| Dimensions H x B x T | 75 x 45 x 65 mm | |

**Description**

Murrelektronik potentiometer modules can be fitted with individual potentiometers and are available in 2 standard versions. The first version is a simple 270° potentiometer, the second a 10-turn potentiometer with fine adjustment. The module operates with 10 V or 24 V DC. A resistor reduces the voltage so that a 24 V DC voltage can be reduced to operate between 0…11 V. The connection is via terminals. A set-point can also be switched-on using an integrated relay and separate output. Many elements can be combined. The modules are for mounting on DIN-rail to EN 60715.

**Dimension drawing**




**Notes**

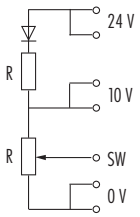
The 10-turn potentiometer has a decimal scale and locking lever.

## 270° and 10-turn Potentiometer

### MPOT
Potentiometer for set-point adjustment
270° potentiometer

### MPOT
Potentiometer for set-point adjustment
3600° potentiometer/10-turn

**Circuit diagram**



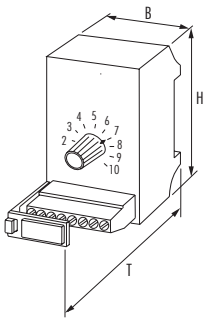

| Ordering data | 270° Art.-No. | 10-turn Art.-No. |
|---|---|---|
| Potentiometer value | | |
| 1 k-Ohm | **67501** | **67511** |
| 5 k-Ohm | **67505** | **67515** |
| 10 k-Ohm | **67502** | **67512** |
| 100k-Ohm | **67503** | **67513** |

| Technical data | | |
|---|---|---|
| Pot. resistance tolerance | ± 20 % | ± 5 % |
| Linearity | ± 3 % | ± 0.25 % |
| Power: potentiometer | 1 W | 1.4 W (2 W at 40 °C) |
| Power: resistor | 0.25 W | |
| Temperature range | 0…+60 °C | |
| Mounting method | DIN-rail mounting EN 60715 | |
| Dimensions H x B x T | 75 x 45 x 65 mm | |

**Description**

Murrelektronik potentiometer modules can be fitted with individual potentiometers and are available in 2 standard versions. The first version is a simple 270° potentiometer, the second a 10-turn potentiometer with fine adjustment. The module operates with 10 V or 24 V DC. A resistor reduces the voltage so that a 24 V DC voltage can be reduced to operate between 0…11 V. The connection is via terminals. The modules are for mounting on DIN-rail to EN 60715.

**Dimension drawing**




**Notes**

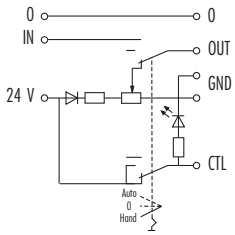
The 10-turn potentiometer has a decimal scale and locking lever.

**10-turn Potentiometer for use in Building Management Systems**

## MPOT-H

Potentiometer for set-point adjustment
with HAND-0-AUTO slide switch and CTL-monitoring output

### Circuit diagram




| Ordering data | 10-turn | Art.-No. |
|---|---|---|
| Potentiometer value | | |
| 1 k-Ohm | | **67581** |

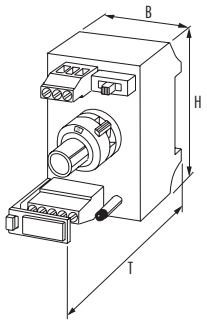
### Technical data

| | |
|---|---|
| Pot. resistance tolerance | ± 5 % |
| Linearity | ± 0.25 % |
| Power: potentiometer | 1.4 W (2 W bat 40 °C) |
| Power: resistor | 0.25 W |
| Control voltage | 24 V DC |
| Switched current min./max. | 5 mA/300 mA |
| Status indicator | yellow LED if CTL active (switch "HAND" or "0" position) |
| Temperature range | 0…+60 °C |
| Mounting method | DIN-rail mounting EN 60715 |
| Dimensions H x B x T | 75 x 45 x 65 mm |

### Description

Murrelektronik MPOT-H modules are fitted with a HAND-OFF-AUTO slide switch. The analog output from, for example, a DDC is connected to the IN terminal and, if the slide switch is in the AUTO position, appears on the OUT terminal. When the slide switch is in the 0 (off) position the signal is removed from the OUT terminal. In the HAND position, which is supplied by 24 V DC, an analog signal can be manually set by means of the potentiometer. The slide switch position at "0" or "HAND" 24 V or CTL spring clamp terminals can be used as a signal.

### Dimension drawing

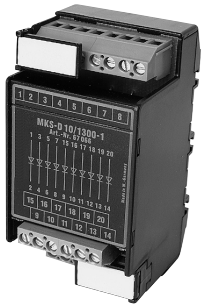



### Notes

The 10-turn potentiometer has a decimal scale and locking lever.

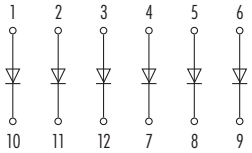
## DIN-rail mounting diode modules

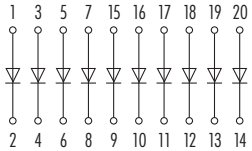
### MKS-D
individually wired to screw terminals

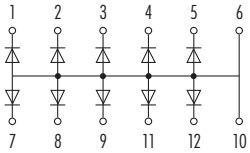


### MKS-D
diodes with common potential

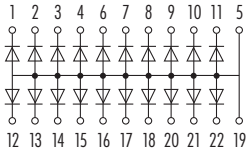
**Circuit diagram**




Picture:
com. potential anode




| Ordering data | | Art.-No. | Art.-No. |
|---|---|---|---|
| Circuit | No. of diodes | | |
| Single | 6 | **67063** | |
| Single | 10 | **67066** | |
| Com. potential anode | 10 | | **67040** |
| Com. potential anode | 20 | | [1] **67052** |
| Com. potential cathode | 10 | | **67045** |
| Com. potential cathode | 20 | | **67057** |

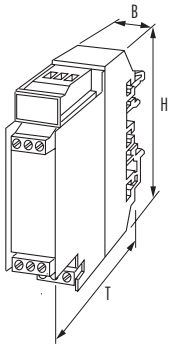
| Technical data | |
|---|---|
| Diode type | universal diode 1300 V, 1 A |
| Wiring method | screw terminals 4 mm² |
| Temperature range | -20…+60 °C |
| Mounting method | DIN-rail mounting to EN 60715 (TH35) or (G32) |

**Description**

diode modules are also available for the suppression of inductive loads (valves, contactors, motors etc.)

| Dimensions H x B x T | | | | |
|---|---|---|---|---|
| | 86 x 22.5 x 62 mm | 67063 | 86 x 22.5 x 62 mm | 67040 |
| | 86 x 45 x 62 mm | 67066 | 86 x 45 x 62 mm | 67052 |
| | | | 86 x 22.5 x 62 mm | 67045 |
| | | | 86 x 45 x 62 mm | 67057 |

**Dimension drawing**




**Notes**

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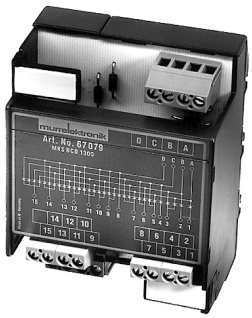
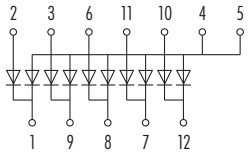
## DIN-rail mounting diode modules

### MKS-LDP
diodes wired in pairs with common potential

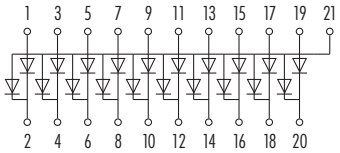
### MKS-BCD
diode logic for converting hexadecimal into binary numbers

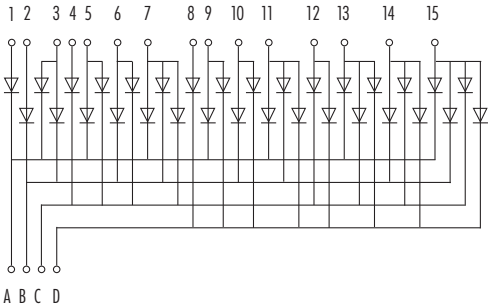


**Circuit diagram**




Picture:
Com. potential anode



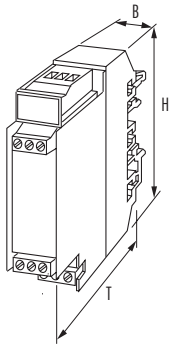

| Ordering data | | Art.-No. | Art.-No. |
|---|---|---|---|
| Circuit | No. of diodes | | |
| Com. potential anode | 5 pairs | **67072** | |
| Com. potential anode | 10 pairs | **67096** | |
| | | | **67079** |

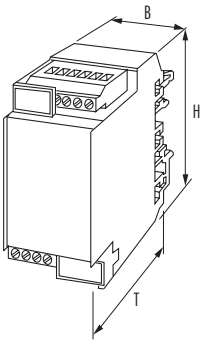
| Technical data | | |
|---|---|---|
| Diode type | universal diode 1300 V, 1 A | |
| Wiring method | screw terminals 4 mm² | |
| Temperature range | -20…+60 °C | |
| Mounting method | DIN-rail mounting to EN 60715 (TH35) or (G32) | |

| Description | | |
|---|---|---|
| | diode gathered for lamp test function | diodes gathered to convert hexadecimal to binary numbers |

| Dimensions H x B x T | | |
|---|---|---|
| | 86 x 22.5 x 62 mm 67072 | 86 x 67.5 x 62 mm 67079 |
| | 86 x 45 x 62 mm 67096 | |

**Dimension drawing**




**Notes**

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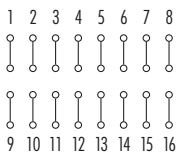
## Assembly modules for self-wiring of components

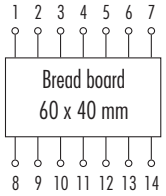
### MKS-M
screw terminals
connected to solder tag pairs

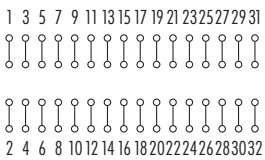
### ML 14
MCVO housing 14-pole
with bread board

### MP
screw terminals
connected to solder tag pairs

**Circuit diagram**



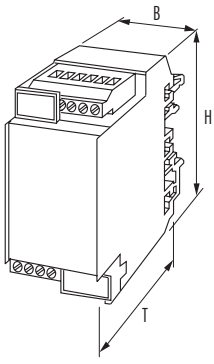



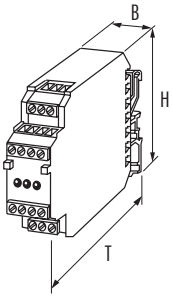

| Ordering data | Art.-No. | Art.-No. | Art.-No. |
|---|---|---|---|
| Pairs of solder pins | | | |
| 4 | **67081** | | |
| 6 | | | **62001** |
| 6 | | | [1] **62030** |
| 8 | **67083** | | |
| 12 | | | **62010** |
| 14 | | **92200** | |
| 16 | | | **62020** |

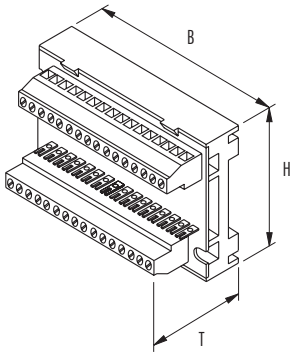
| Technical data | | | |
|---|---|---|---|
| Voltage | max. 250 V AC/DC | | |
| Current | max. 5 A Art.-No. 67081: 2.5 A | | |
| Dist. between tag pairs | 40 mm Art.-No. 67081: 30 mm | – | 24 mm |
| Wiring method | screw terminals 4 mm²; connected to solder tag pairs spacing 5 mm | | |
| Material | flame retardant plastic | | |
| Housing | enclosed | MCVO housing, enclosed | open construction |
| Temperature range | -20…+60 °C | | |
| Mounting method | DIN-rail mounting to EN 60715 (TH35) or (G32) | | DIN-rail mounting to EN 60715 (TH35) or (G32) or screw fixing |

| Dimensions H x B x T | | | | | |
|---|---|---|---|---|---|
| | 86 x 22.5 x 62 mm | 67081 | 75 x 22.5 x 102 mm | 92200 | 63 x 45 x 36 mm | 62001 |
| | 86 x 45 x 62 mm | 67083 | | | 90 x 63 x 36 mm | 62030 |
| | | | | | 63 x 70 x 36 mm | 62010 |
| | | | | | 63 x 90 x 36 mm | 62020 |

**Dimension drawing**



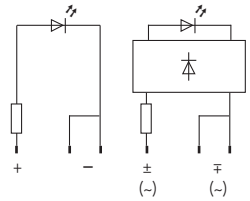
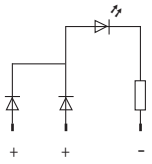
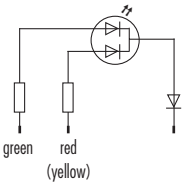




**Notes**

[1] Art.-No. 62030 has a spacing between solder tags of 50 mm.

## LED indicators for front panel mounting

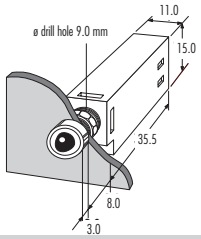
| | **LED** plastic housing | **LED** plastic housing with lamp test input | **LED 2F** 2 color LED in plastic housing | |
|---|---|---|---|---|
| |  | | | |
| **Circuit diagram** |   Art.-No. 716012 |   |   | |

| **Ordering data** | | **Art.-No.** | **Art.-No.** | **Art.-No.** | **Art.-No.** |
|---|---|---|---|---|---|
| Voltage | LED-color | | | | |
| 24 V | red | **71261** | **71361** | | |
| | yellow | **71271** | **71371** | | |
| | green | **71281** | **71381** | | |
| | blue | 24 V DC **716012** | | | |
| | red/green | | | **71250** | |
| | yellow/green | | | **71255** | |
| 110 V | red | **71267** | | | |
| | yellow | **71277** | | | |
| | green | **71287** | | | |
| 230 V | red | **71269** | | | |
| | yellow | **71279** | | | |
| | green | **71289** | | | |
| | blue | **716015** | | | |

| **Technical data** | | | | | | |
|---|---|---|---|---|---|---|
| Voltage | 24 V AC/DC | ±15 % | 24 V DC | ±15 % | 24 V DC | ±15 % |
| | 110 V AC/DC | ±15 % | – | | – | |
| | 230 V AC | ±10 % | – | | – | |
| Current supply | 10 mA each LED | | | | | |
| LED | Ø 5 mm | | | | | |
| Connection | Faston 2.8 x 0.8 mm | | | | | |
| Protection to IEC529 (DIN 40050) | IP65 | | | | | |
| Temperature range | -20…+50 °C | | | | | |
| Housing | flame retardant plastic | | | | | |

| **Accessories** | **Art.-No.** |
|---|---|
| Mounting key for plastic nut | **71998** |
| Metal front nut | **71991** |
| Blind plug | **71995** |

**Assembly/Dimension drawing**



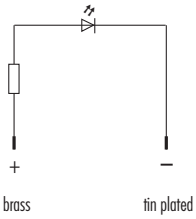

**Notes**

The LED modules are suitable for wall thickness between 1.5 and 5.0 mm.

## LED indicators for front panel mounting

| | LED 3 M | LED 5 M | LED 10 M |
|---|---|---|---|
| | metal housing | metal housing | metal housing |

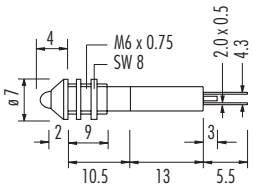
**Circuit diagram**

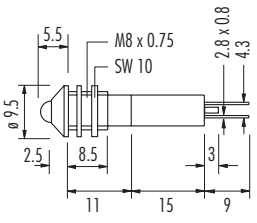


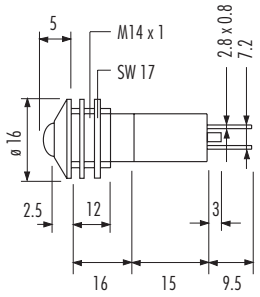

| Ordering data | | Art.-No. | Art.-No. | Art.-No. |
|---|---|---|---|---|
| Voltage | LED-color | | | |
| 24 V DC ±10 % | red Ø 3 mm | **71403** | | |
| | yellow Ø 3 mm | **71423** | | |
| | green Ø 3 mm | **71443** | | |
| 24 V DC ±10 % | red Ø 5 mm | | **71405** | |
| | yellow Ø 5 mm | | **71425** | |
| | green Ø 5 mm | | **71445** | |
| 24 V DC ±10 % | red Ø10 mm | | | **71410** |
| | yellow Ø10 mm | | | **71430** |
| | green Ø10 mm | | | **71450** |

| Technical data | | | |
|---|---|---|---|
| Current supply | 20 mA each LED | | |
| LED | Ø 3 mm | Ø 5 mm | Ø 10 mm |
| Connection | Faston 2.0 x 0.5 mm | Faston 2.8 x 0.8 mm | |
| Protection to IEC 529 (DIN 40050) | IP40 | | |
| Temperature range | -30…+70 °C | | |
| Housing | brass, chrome plated | | |
| Dimension | Ø 7 x 33 mm | Ø 9.5 x 40 mm | Ø 16 x 45 mm |
| Front panel hole diameter | Ø 6 mm | Ø 8 mm | Ø 14 mm |

**Dimensioni drawing**




**Notes**

+ connection brass, – connection tin plated