

## MCZ O 120VUC

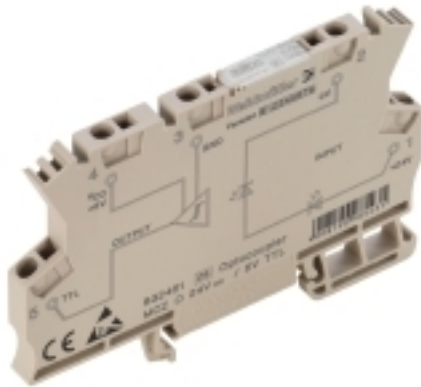
Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Similar to illustration

High reliability in a terminal block format

MCZ SERIES relay modules are among the smallest on the market. Thanks to the small width of just 6.1 mm, a lot of space can be saved in the panel. All products in the series have three cross-connection terminals and are distinguished by simple wiring with plug-in cross-connections. The tension clamp connection system, proven a million times over, and the integrated reverse polarity protection ensure a high level of safety during installation and operation. Precisely fitting accessories from cross-connectors to markers and end plates make the MCZ SERIES versatile and convenient to use.

- Tension clamp connection
- Integrated cross-connection in input/output.
- Clampable conductor cross-section is 0.5 to 1.5 mm<sup>2</sup>
- Variants of the MCZ TRAK type are particularly suitable for the transport sector and tested according to DIN EN 50155

## General ordering data

|            |                                                                                                                                                                                                   |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version    | MCZ SERIES, solid-state relays, 1 NO contact (Transistor), Rated control voltage: 120 V UC +5 / -15 % , Rated switching voltage: 5...48 V DC, Continuous current: 50 mA, Tension-clamp connection |
| Order No.  | <a href="#">8421060000</a>                                                                                                                                                                        |
| Type       | MCZ O 120VUC                                                                                                                                                                                      |
| GTIN (EAN) | 4032248006045                                                                                                                                                                                     |
| Qty.       | 10 pc(s).                                                                                                                                                                                         |

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## Technical data

## Dimensions and weights

|                |           |                 |            |
|----------------|-----------|-----------------|------------|
| Depth          | 63.2 mm   | Depth (inches)  | 2.488 inch |
| Height         | 91 mm     | Height (inches) | 3.583 inch |
| Net weight     | 22.5 g    | Width           | 6.1 mm     |
| Width (inches) | 0.24 inch |                 |            |

## Temperatures

|                     |                                                |                       |                |
|---------------------|------------------------------------------------|-----------------------|----------------|
| Storage temperature | -40 °C...60 °C                                 | Operating temperature | -25 °C...40 °C |
| Humidity            | 40 °C / 93 % rel. humidity,<br>no condensation |                       |                |

## Probability of failure

|      |             |
|------|-------------|
| MTTF | 2,415 Years |
|------|-------------|

## Environmental Product Compliance

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

## Rated data UL

|                         |         |
|-------------------------|---------|
| Certificate No. (cURus) | E141197 |
|-------------------------|---------|

## Control side

|                         |                                                 |                                |                                  |
|-------------------------|-------------------------------------------------|--------------------------------|----------------------------------|
| Nominal control current | 3 mA DC ( $\pm 10$ %),<br>3 mA AC ( $\pm 10$ %) | Power rating                   | 350 mW / 400 mVA                 |
| Protective circuit      | Rectifier                                       | Pull-in/drop-out voltage, typ. | 65 V / 64 V AC<br>70 V / 64 V DC |
| Rated control voltage   | 120 V UC + 5 % / - 15 %                         | Status indicator               | Green LED                        |

## Load side

|                                               |                     |                                               |                  |
|-----------------------------------------------|---------------------|-----------------------------------------------|------------------|
| Continuous current                            | 0.05 A              | Leakage current                               | $\leq 1$ mA      |
| Protective circuit, load side                 | Free-wheeling diode | Pulse load, max. current                      | < 150 mA / 10 ms |
| Rated switching voltage                       | 5...48 V DC         | Short-circuit-proof                           | No               |
| Switch-off delay                              | $\leq 40$ ms        | Switch-on delay                               | $\leq 30$ ms     |
| Voltage drop at max. load                     | 1.6 V               | max. switching frequency (AC control voltage) | 5 Hz             |
| max. switching frequency (DC control voltage) | 20 Hz               |                                               |                  |

## Contact data

|              |                           |
|--------------|---------------------------|
| Contact type | 1 NO contact (Transistor) |
|--------------|---------------------------|

## General data

|                                    |                          |         |
|------------------------------------|--------------------------|---------|
| Rail                               | TS 35                    |         |
| Colour                             | beige                    |         |
| UL94 flammability rating component | Component                | Housing |
|                                    | UL94 flammability rating | V-0     |

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## Insulation coordination

|                                                               |                              |                                                  |                           |
|---------------------------------------------------------------|------------------------------|--------------------------------------------------|---------------------------|
| Clearance and creepage distances for control side - load side | ≥ 5.5 mm                     | Dielectric strength for control side - load side | 1 kV <sub>eff</sub> / 1 s |
| Dielectric strength to mounting rail                          | 4 kV <sub>eff</sub> / 1 Min. | Impulse withstand voltage                        | 6 kV (1.2/50 µs)          |
| Pollution severity                                            | 2                            | Protection degree                                | IP20                      |
| Rated voltage                                                 | 300 V                        | Surge voltage category                           | III                       |

## Further details of approvals / standards

|                         |                     |                       |                |
|-------------------------|---------------------|-----------------------|----------------|
| Standards               | DIN EN 50178, UL508 | Certificate No. (CSA) | 154685-1198742 |
| Certificate No. (cURus) | E141197             |                       |                |

## Connection data

|                                                                                         |                          |                                                                                         |                     |
|-----------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------|---------------------|
| Wire connection method                                                                  | Tension-clamp connection | Stripping length, rated connection                                                      | 8 mm                |
| Clamping range, rated connection                                                        | 1.5 mm <sup>2</sup>      | Clamping range, min.                                                                    | 0.5 mm <sup>2</sup> |
| Clamping range, max.                                                                    | 1.5 mm <sup>2</sup>      | Wire connection cross section AWG, min.                                                 | AWG 26              |
| Wire connection cross section AWG, max.                                                 | AWG 16                   | Wire cross-section, solid, min.                                                         | 0.5 mm <sup>2</sup> |
| Wire cross-section, solid, max.                                                         | 1.5 mm <sup>2</sup>      | Wire cross-section, solid, min. (AWG)                                                   | AWG 26              |
| Wire cross-section, solid, max. (AWG)                                                   | AWG 16                   | Wire connection cross section, finely stranded, min.                                    | 0.5 mm <sup>2</sup> |
| Wire connection cross section, finely stranded, max.                                    | 1.5 mm <sup>2</sup>      | Wire cross-section, finely stranded, min. (AWG)                                         | AWG 26              |
| Wire cross-section, finely stranded, max. (AWG)                                         | AWG 16                   | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 0.5 mm <sup>2</sup> |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 1.5 mm <sup>2</sup>      | Conductor cross-section, flexible, AEH (DIN 46228-1), min.                              | 0.5 mm <sup>2</sup> |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max.                              | 1.5 mm <sup>2</sup>      | Blade size                                                                              | 0.6 x 3.5 mm        |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC001504    | ETIM 7.0    | EC001504    |
| ECLASS 9.0  | 27-37-16-04 | ECLASS 9.1  | 27-37-16-04 |
| ECLASS 10.0 | 27-37-16-04 | ECLASS 11.0 | 27-37-16-04 |

## Approvals

Approvals



|                       |         |
|-----------------------|---------|
| ROHS                  | Conform |
| UL File Number Search | E141197 |

## Downloads

|                                             |                                                                         |
|---------------------------------------------|-------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a> |
| Engineering Data                            | <a href="#">STEP</a>                                                    |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                            |
| User Documentation                          | <a href="#">Beipackzettel / Package Insert – multilingual</a>           |

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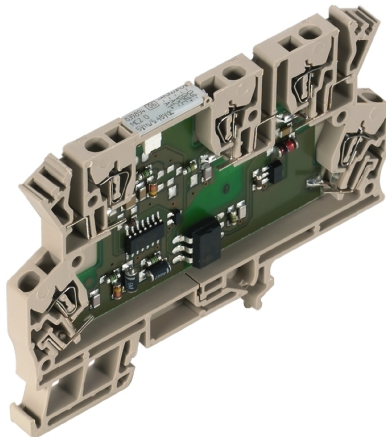
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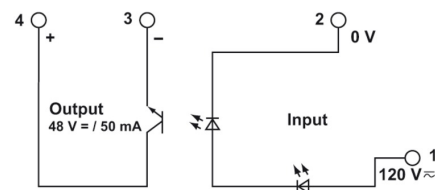
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## Drawings

### Wiring diagram



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### Dimensional drawing

