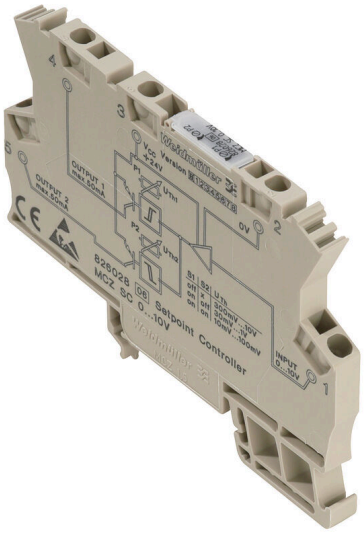
Data sheet

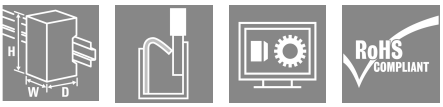
# MCZ SC 0-20MA

**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

## Product image






MCZ: The smallest solution

- The smallest analogue signal converter in terminal block format on the market
- Space-saving conversion of analogue signals in the control cabinet thanks to the slim, 6 mm wide module width
- Simple wiring with plug-in cross-connectors

### General ordering data

| | |
|---|---|
| Version | Limit value monitoring, Input : 0-20 mA, Output 2 x transistor |
| Order No. | 8227350000 |
| Type | MCZ SC 0-20MA |
| GTIN (EAN) | 4008190193799 |
| Qty. | 10 items |

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# Technical data

### Approvals

| | |
|---|---|
| Approvals | |
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E141197 |

### Dimensions and weights

| | | | |
|---|---|---|---|
| Depth | 63.2 mm | Depth (inches) | 2.4882 inch |
| Height | 15 mm | Height (inches) | 0.5906 inch |
| Width | 6 mm | Width (inches) | 0.2362 inch |
| Length | 91 mm | Length (inches) | 3.5827 inch |
| Net weight | 28 g | | |

### Temperatures

| | | | |
|---|---|---|---|
| Storage temperature | -25 °C...60 °C | Operating temperature | -20 °C...60 °C |
| Humidity at operating temperature | 0...95 % (no condensation) | | |

### Probability of failure

| | | | |
|---|---|---|---|
| SIL in compliance with IEC 61508 | None | MTTF | 681 a |

### Environmental Product Compliance

| | |
|---|---|
| RoHS Compliance Status | Compliant with exemption |
| RoHS Exemption (if applicable/known) | 6c, 7a, 7cI |
| REACH SVHC | Lead 7439-92-1 |
| SCIP | 35d83707-6a3b-45b5-b9f8-6ba8184c863e |

### Input

| | | | |
|---|---|---|---|
| Input current | 0.5...20 mA | Input resistance, current | 50 Ω |
| Voltage drop | 1 V | | |

### Output

| | | | |
|---|---|---|---|
| Number of outputs | 2 | Cut-off frequency (-3 dB) | 100 Hz |

### General data

| | | | |
|---|---|---|---|
| Protection degree | IP20 | Supply voltage | 24 V DC ± 20 % |
| Step response time | <250 µs (switching threshold at 90% of max. input signal; RI ≤ 1 kΩ) | Current consumption | 15 mA |
| Mounting rail | TS 35 | Temperature coefficient | ± 250 ppm/K, 350 ppm/K |
| Nominal power consumption | 1.5 VA | Configuration | Potentiometer |

### Insulation coordination

| | | | |
|---|---|---|---|
| EMC standards | EN 55011, EN 61000-6 | Galvanic isolation | between input / output / supply / relay |

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# Technical data

### Connection data

| | | | |
|---|---|---|---|
| Type of connection | Tension-clamp connection | Clamping range, rated connection | 1.5 mm² |
| Clamping range, min. | 0.5 mm² | Clamping range, max. | 1.5 mm² |

### Classifications

| | | | |
|---|---|---|---|
| ETIM 8.0 | EC002654 | ETIM 9.0 | EC002654 |
| ETIM 10.0 | EC002654 | ECLASS 14.0 | 27-21-01-22 |
| ECLASS 15.0 | 27-21-01-22 | | |

### Tender specification sheets

| | | | |
|---|---|---|---|
| Long specification | Trip amplifier for monitoring a 0...20 mA standard signal with two switching outputs Trip amplifier in 6 mm width for analogue 0...20 mA standard signals with two PNP-transistor switch outputs for monitoring an upper and lower threshold (adjustable via potentiometer). Dimensions: L/W/H 91/ 6/ 63.2 mm Tension-clamp connection / Nominal cross-section 1.5 mm2 Protection degree: IP 20 Input 0.5...20 mA Output Double switching output PNP/ 50 mA per channel<br><br>Adjustable via potentiometer Switching hysteresis 1 % of input Step response time < 250 us (10...90 %) Temperature coefficient < 250 ppm K Auxiliary power 24 V DC +/- 20 % Ambient temperature range 0°C...+50 °C Approvals cURus, CSA Type MCZ SC 0-20MA | Short specification | Trip amplifier for monitoring a 0...20 mA standard signal with two switching outputs Trip amplifier in 6 mm width for analogue 0...20 mA standard signals with two PNP-transistor switch outputs for monitoring an upper and lower threshold (adjustable via potentiometer). |

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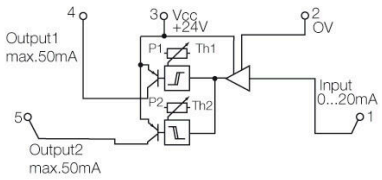
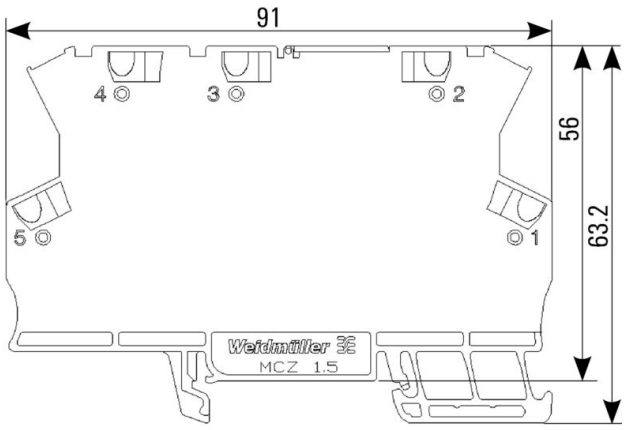
## Drawings

### Connection diagram



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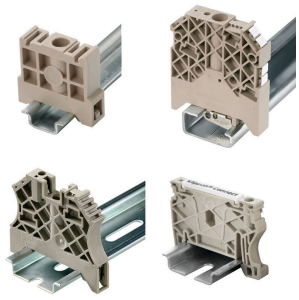
## Accessories

### End bracket



Weidmüller's range of products includes end brackets that guarantee a permanent, reliable mounting on the terminal rail and prevent sliding. Versions with and without screws are available. The end brackets include marking options, also for group markers, and also a test plug holder.

#### General ordering data

| | | |
|---|---|---|
| Type | EW 35 | Version |
| Order No. | 0383560000 | End bracket, beige, TS 35, V-2, Wemid, Width: 8.5 mm, 100 °C |
| GTIN (EAN) | 4008190181314 | |
| Qty. | 50 ST | |

### Cross-connections

The distribution or multiplication of a potential to adjoining terminal blocks is realized via a cross-connection. Additional wiring effort can be easily avoided. Even if the poles are broken out, contact reliability in the terminal blocks is still ensured. Our portfolio offers pluggable and screwable cross-connection systems for modular terminal blocks.

#### General ordering data

| | | |
|---|---|---|
| Type | ZQV 4N/10 GE | Version |
| Order No. | 1758260000 | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248169764 | |
| Qty. | 20 ST | |

### AP MCZ 1.5 - End plate

Open miniature housing in modular terminal format with five tension clamp connections. A transparent hinged top plate can be used for labelling and provides access to potentiometer and status displays. Plug-in cross-connectors can be used to interconnect the three top connections. A cover plate for closing off the housing is also available.

#### General ordering data

| | | |
|---|---|---|
| Type | AP MCZ1.5 1674 | Version |
| Order No. | 8389030000 | End plate, OMNIMATE Housing - TERMINALBOX grey-beige, End |
| GTIN (EAN) | 4008190386849 | plate, Width: 1.5 mm |
| Qty. | 50 ST | |

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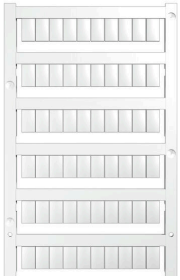
## Accessories

### Blank



WS markers are the perfect match for the W-series connectors. Thanks to their system compatibility, the WS tags can also be used with the I-series and the Z-series. The large marking surfaces do not only permit long character strings but also multi-line text.
WS markers are ideal for labels with long, customised character strings. Thanks to the proven MultiCard format, printing with PrintJet CONNECT oder/or Plotter is possible.
• Can be fitted in strips or individually
• Markers in proven MultiCard format
For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

#### General ordering data

| | | |
|---|---|---|
| Type | WS 10/6 MC NE WS | Version |
| Order No. | 1828450000 | WS, Terminal marker, 10 x 6 mm, Pitch in mm (P): 6.00 Weidmueller, |
| GTIN (EAN) | 4032248350513 | Allen-Bradley, white |
| Qty. | 600 ST | |

### Cross-connections

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#### General ordering data

| | | |
|---|---|---|
| Type | ZQV 4N/2 | Version |
| Order No. | 1527930000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: |
| GTIN (EAN) | 4050118332766 | 2, Pitch in mm (P): 6.10, Insulated: Yes, Width: 9.9 mm |
| Qty. | 60 ST | |
| Type | ZQV 4N/3 | Version |
| Order No. | 1527940000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: |
| GTIN (EAN) | 4050118332865 | 3, Pitch in mm (P): 6.10, Insulated: Yes, Width: 16 mm |
| Qty. | 60 ST | |
| Type | ZQV 4N/4 | Version |
| Order No. | 1527970000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: |
| GTIN (EAN) | 4050118332889 | 4, Pitch in mm (P): 6.10, Insulated: Yes, Width: 22.1 mm |
| Qty. | 60 ST | |
| Type | ZQV 4N/5 | Version |
| Order No. | 1527980000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: |
| GTIN (EAN) | 4050118332759 | 5, Pitch in mm (P): 6.10, Insulated: Yes, Width: 28.2 mm |
| Qty. | 60 ST | |