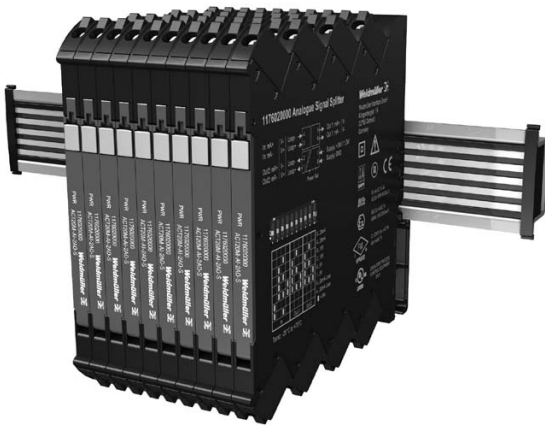


ACT20M Signal Isolation and Conversion

NEW



High quality signal isolation and conversion in a slim 6mm wide housing format is now available with Weidmüller's ACT20M range. Featuring worldwide approvals for both standard and hazardous area installations, this series of eight single- and dual-channel models extends Weidmüller's signal conditioning portfolio with a package of solutions for industrial process measurement and control applications. ACT20M is designed to reduce the time and cost of building control panels. DIN-rail mounted in

Weidmüller's new 8-pole housing, module power can be distributed through the rail for minimized power wiring and reduced installation costs. This "Power Rail" provides the flexibility to add or remove individual modules quickly and easily without affecting the wiring or operation of other components on the rail.

The ACT20M range offers two-channel loop-powered isolation, signal splitting with power provided for the transmitter, or universal input conversion in a 6mm wide module — without compromising performance. In addition, configuration is simple because the ACT20M modules require no calibration. Models with selectable voltage and current ranges feature DIP switches. For the Universal input model, Weidmüller provides vendor-independent, FDT-based configuration software available for download from the Weidmüller website.

Features:

- Very high density analog signal isolation and conversion
- Easy installation with Power Rail cross-connect option
- DIP switches for calibration-free re-ranging
- Universal input model uses FDT configuration software (and CBX200 interface)
- CE, cULus, cFmus Class 1 Div. 2 and Class 1 Zone 2 ATEX, IECEx Zone 2, DNV, GL approvals
- Ambient temperature range typically -13°F to 158°F (-25°C to 70°C)

Weidmüller, Canada

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Markham, Ontario L3R 5H6
Telephone: (800) 268-4080
Facsimile: (877) 300-5635
Email: info1@weidmuller.ca
Website: www.weidmuller.ca

Weidmüller, Mexico

Blvd. Hermanos Serdán 698
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Facsimile: 01 222 2686219
Email: clientes@weidmuller.com.mx
Website: www.weidmuller.com.mx

Weidmüller, United States

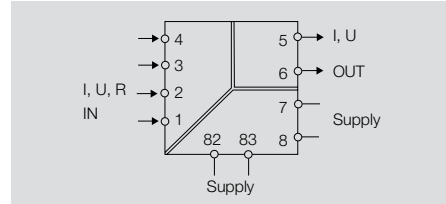
821 Southlake Blvd.
Richmond, Virginia 23236
Telephone: (800) 849-9343
Facsimile: (804) 379-2593
Email: info@weidmuller.com
Website: www.weidmuller.com

Weidmüller 

Universal input converter

- Isolating and converting of temperature signals and DC signals
- Configuration using FDT/DTM software
- Optional power supply via the DIN-rail-bus
- 3 way isolation

ACT20M-UI-AO-S



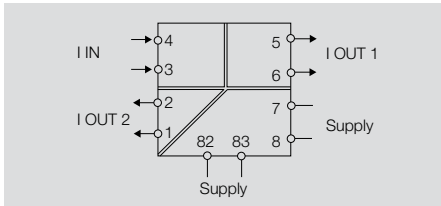
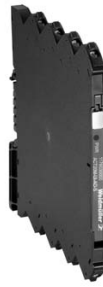
Technical data

| | | | |
|--|---------------------|---|-----------------|
| Input | | | |
| Sensor | | | |
| | | | |
| Potentiometer/Resistance | | 10 Ω...10 k Ω | |
| Input current | | 0/4...20 mA | |
| Input voltage | | 0/2...10 V | |
| Load resistance, current | | < 75 Ω | |
| Load resistance, voltage | | > 500 k Ω | |
| Sensor supply | | > 15 V DC at 20 mA | |
| Output | | | |
| Output current | | 0/4...20 mA | |
| Output voltage | | 0/2...10 V | |
| Load resistance, current | | < 600 Ω | |
| Load resistance, voltage | | > 10 k Ω | |
| General data | | | |
| Supply voltage | | 24 V DC ± 30 % | |
| Power consumption | | 0.4 W (24 V supply / Passive input / 20 mA input & output / 100 Ω load) | |
| Ambient temperature (operational) | | -25 °C...+70 °C | |
| Storage temperature | | -40 °C...+85 °C | |
| Accuracy | | < 0.1 % span (DC, RTD) < 0.2 % + CJ error (TC) < 0.01 % /K | |
| Temperature coefficient | | | |
| Insulation coordination | | | |
| Insulation voltage | | 2.5 kV | |
| Rated voltage | | 300 V | |
| Pollution degree | | 2 | |
| Overvoltage category | | II | |
| Approvals | | | |
| | | cULus 61010-1, cFMus Div.2, ATEX zone 2, IECEx Zone 2, DNV, GL | |
| Dimensions | | | |
| Length x width x height | mm | 114.3 x 6.1 x 112.5 | |
| Clamping range (nominal / min. / max.) | mm ² | 2.5 / 0.5 / 2.5 | |
| Note | | | |
| Ordering data | | | |
| | Type | Qty. | Part No. |
| | ACT20M-UI-AO-S | 1 | 1176030000 |
| Note | | | |
| Accessories | | | |
| | Type | Qty. | Part No. |
| Marker | MF 5/7.5 MC NEUTRAL | | 1877680000 |
| USB interface | CBX200 USB | | 8978580000 |
| Note | | DIN-rail bus, refer to accessories page | |

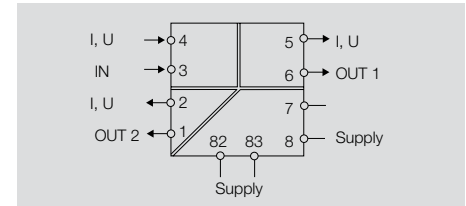
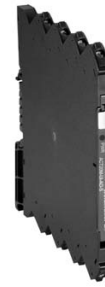
Signal splitter

- Isolating, converting and splitting DC signals
- Configured using DIP switch
- Optional power supply via the DIN-rail bus
- 4 way isolation

ACT20M-CI-2CO-S



ACT20M-AI-2AO-S



Technical data

| Input | |
|-----------------------------------|---|
| Input current | 0/4...20 mA |
| Input voltage | - |
| Load resistance, current | < 75 Ω |
| Load resistance, voltage | - |
| Sensor supply | - |
| Output | |
| Output current | 0/4...20 mA |
| Output voltage | - |
| Load resistance, current | < 300 Ω / channel |
| Load resistance, voltage | - |
| General data | |
| Supply voltage | 24 V DC ± 30 % |
| Power consumption | 0.4 W (24 V supply / Passive input / 20 mA input & output / 100 Ω load) |
| Ambient temperature (operational) | -25 °C...+70 °C |
| Storage temperature | -40 °C...+85 °C |
| Accuracy | < 0.05 % of measurement range |
| Temperature coefficient | < 0.01 % /K |
| Cut-off-frequency | 100 Hz |
| Insulation coordination | |
| Insulation voltage | 2.5 kV |
| Rated voltage | 300 V |
| Pollution degree | 2 |
| Overvoltage category | II |
| Approvals | |
| | cULus 61010-1, cFMus Div.2, ATEX zone 2, IECEx Zone 2, DNV, GL |

| | |
|-----------------------------------|---|
| Input current | 0/4...20 mA |
| Input voltage | - |
| Load resistance, current | < 75 Ω |
| Load resistance, voltage | - |
| Sensor supply | - |
| Output current | 0/4...20 mA |
| Output voltage | - |
| Load resistance, current | < 300 Ω / channel |
| Load resistance, voltage | - |
| Supply voltage | 24 V DC ± 30 % |
| Power consumption | 0.4 W (24 V supply / Passive input / 20 mA input & output / 100 Ω load) |
| Ambient temperature (operational) | -25 °C...+70 °C |
| Storage temperature | -40 °C...+85 °C |
| Accuracy | < 0.05 % of measurement range |
| Temperature coefficient | < 0.01 % /K |
| Cut-off-frequency | 100 Hz |
| Insulation voltage | 2.5 kV |
| Rated voltage | 300 V |
| Pollution degree | 2 |
| Overvoltage category | II |
| Approvals | cULus 61010-1, cFMus Div.2, ATEX zone 2, IECEx Zone 2, DNV, GL |

| | |
|-----------------------------------|--|
| Input current | 0/4...20 mA |
| Input voltage | 0/2...10 V 0/1...5 V |
| Load resistance, current | < 75 Ω |
| Load resistance, voltage | > 500 k Ω |
| Sensor supply | > 17 V DC at 20 mA |
| Output current | 0/4...20 mA |
| Output voltage | 0/2...10 V 0/1...5 V |
| Load resistance, current | < 300 Ω / channel |
| Load resistance, voltage | > 10k Ω / channel |
| Supply voltage | 24 V DC ± 30 % |
| Power consumption | 0.4W (24 V supply / Passive input / 20 mA input & output / 100 Ω load) |
| Ambient temperature (operational) | -25 °C...+70 °C |
| Storage temperature | -40 °C...+85 °C |
| Accuracy | < 0.05 % of measurement range |
| Temperature coefficient | < 0.01 % /K |
| Cut-off-frequency | 100 Hz |
| Insulation voltage | 2.5 kV |
| Rated voltage | 300 V |
| Pollution degree | 2 |
| Overvoltage category | II |
| Approvals | cULus 61010-1, cFMus Div.2, ATEX zone 2, IECEx Zone 2, DNV, GL |

| Dimensions | |
|--|---------------------------------|
| Length x width x height | mm 114.3 x 6.1 x 112.5 |
| Clamping range (nominal / min. / max.) | mm ² 2.5 / 0.5 / 2.5 |

Note

Ordering data

| Type | Qty. | Part No. |
|-----------------|------|------------|
| ACT20M-CI-2CO-S | 1 | 1175990000 |

Note

Accessories

| Type | Qty. | Part No. |
|--------|------|--------------------------------|
| Marker | | MF 5/7.5 MC NEUTRAL 1877680000 |

Note

| | |
|--|---------------------------------|
| Length x width x height | mm 114.3 x 6.1 x 112.5 |
| Clamping range (nominal / min. / max.) | mm ² 2.5 / 0.5 / 2.5 |

Note

| Type | Qty. | Part No. |
|-----------------|------|------------|
| ACT20M-AI-2AO-S | 1 | 1176020000 |

Note

| Type | Qty. | Part No. |
|--------|------|--------------------------------|
| Marker | | MF 5/7.5 MC NEUTRAL 1877680000 |

Note

| | |
|--|---------------------------------|
| Length x width x height | mm 114.3 x 6.1 x 112.5 |
| Clamping range (nominal / min. / max.) | mm ² 2.5 / 0.5 / 2.5 |

Note

| Type | Qty. | Part No. |
|-----------------|------|------------|
| ACT20M-AI-2AO-S | 1 | 1176020000 |

Note

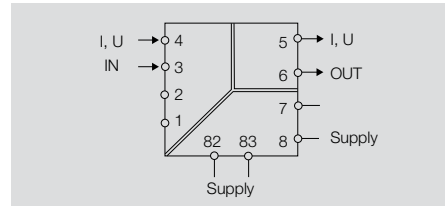
| Type | Qty. | Part No. |
|--------|------|--------------------------------|
| Marker | | MF 5/7.5 MC NEUTRAL 1877680000 |

Note

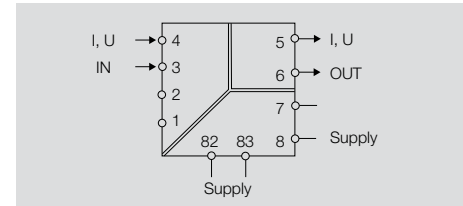
Converters for DC mA and Volts

- Isolating and converting DC signals
- DIP switch for range changes without re-calibration
- Optional power supply via the DIN-rail-bus
- 3 way isolation
- Choice of active or passive mA input ("E" model is passive only)

ACT20M-AI-AO-S



ACT20M-AI-AO-E-S



Technical data

| Input | | |
|-----------------------------------|---|---|
| Input current | 0/4...20 mA | 0/4...20 mA |
| Input voltage | 0/2...10 V 0/1...5 V | 0/2...10 V 0/1...5 V |
| Load resistance, current | < 75 Ω | < 75 Ω |
| Load resistance, voltage | > 500 k Ω | > 500 k Ω |
| Sensor supply | > 17 V DC at 20 mA | - |
| Output | | |
| Output current | 0/4...20 mA | 0/4...20 mA |
| Output voltage | 0/2...10 V 0/1...5 V | 0/2...10 V 0/1...5 V |
| Load resistance, current | < 600 Ω | < 600 Ω |
| Load resistance, voltage | > 10 k Ω | > 10 k Ω |
| General data | | |
| Supply voltage | 24 V DC ± 30 % | 24 V DC ± 30 % |
| Power consumption | 0.4 W (24 V supply / Passive input / 20 mA input & output / 100 Ω load) | 0.4 W (24 V supply / Passive input / 20 mA input & output / 100 Ω load) |
| Ambient temperature (operational) | -25 °C...+70 °C | 0 °C...+70 °C |
| Storage temperature | -40 °C...+85 °C | -40 °C...+85 °C |
| Accuracy | < 0.05 % of measurement range | < 0.2 % of measurement range |
| Temperature coefficient | < 0.01 % /K | < 0.015 % /K |
| Cut-off-frequency | 100 Hz | 100 Hz |
| Insulation coordination | | |
| Insulation voltage | 2.5 kV | 2.5 kV |
| Rated voltage | 300 V | 300 V |
| Pollution degree | 2 | 2 |
| Overvoltage category | II | II |
| Approvals | cULus 61010-1, cFMus Div.2, ATEX zone 2, IECEx Zone 2, DNV, GL | cULus 61010-1, DNV, GL |

Dimensions

| | | | |
|--|-----------------|---------------------|---------------------|
| Length x width x height | mm | 114.3 x 6.1 x 112.5 | 114.3 x 6.1 x 112.5 |
| Clamping range (nominal / min. / max.) | mm ² | 2.5 / 0.5 / 2.5 | 2.5 / 0.5 / 2.5 |

Note

Ordering data

| Type | Qty. | Part No. | Type | Qty. | Part No. |
|----------------|------|-----------|------------------|------|-----------|
| ACT20M-AI-AO-S | 1 | 117600000 | ACT20M-AI-AO-E-S | 1 | 117601000 |

Note

Accessories

| Type | Qty. | Part No. | Type | Qty. | Part No. |
|--------|------|---------------------|------|------|------------|
| Marker | | MF 5/7.5 MC NEUTRAL | | | 1877680000 |

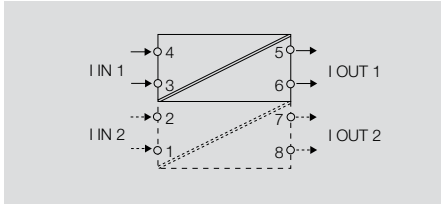
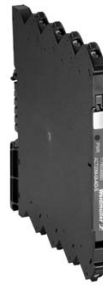
Note

DIN-rail bus, refer to accessories page

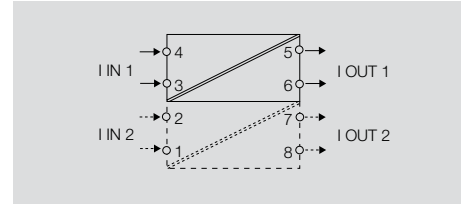
ILP and OLP isolators

- Isolation of DC mA signals
- Takes power from the input loop (ILP) or output loop (OLP)
- Available as either single-channel or double-channel version
- 2 way isolation

ACT20M-CI-CO-ILP-S



ACT20M-CI-CO-OLP-S



Technical data

| Input | |
|-----------------------------------|--|
| Input current | 0/4...20 mA |
| Load resistance, current | - |
| Voltage drop | ≤ 1.2 V |
| Output | |
| Output current | 0/4...20 mA |
| Load resistance, current | < 600 Ω |
| General data | |
| Power consumption | 30 mW per channel - from input loop |
| Ambient temperature (operational) | -25 °C...+70 °C |
| Storage temperature | -40 °C...+85 °C |
| Accuracy | < 0.1 % of measurement range |
| Temperature coefficient | < 0.01 % /K |
| Cut-off-frequency | 100 Hz |
| Insulation coordination | |
| Insulation voltage | 2.5 kV |
| Rated voltage | 300 V |
| Pollution degree | 2 |
| Overvoltage category | II |
| Approvals | |
| | cULus 61010-1, cFMus Div.2, ATEX zone 2, IECEx Zone 2, DNV, GL |

| | |
|-----------------------------------|--|
| Input current | 0/4...20 mA |
| Load resistance, current | - |
| Voltage drop | ≤ 1.2 V |
| Output current | 0/4...20 mA |
| Load resistance, current | < 600 Ω |
| Power consumption | 30 mW per channel - from input loop |
| Ambient temperature (operational) | -25 °C...+70 °C |
| Storage temperature | -40 °C...+85 °C |
| Accuracy | < 0.1 % of measurement range |
| Temperature coefficient | < 0.01 % /K |
| Cut-off-frequency | 100 Hz |
| Insulation voltage | 2.5 kV |
| Rated voltage | 300 V |
| Pollution degree | 2 |
| Overvoltage category | II |
| Approvals | cULus 61010-1, cFMus Div.2, ATEX zone 2, IECEx Zone 2, DNV, GL |

| | |
|-----------------------------------|--|
| Input current | 0/4...20 mA |
| Load resistance, current | < 75 Ω |
| Voltage drop | - |
| Output current | 4 - 20 mA |
| Load resistance, current | < 600 Ω |
| Power consumption | 55 mW per channel - from output loop |
| Ambient temperature (operational) | -25 °C...+70 °C |
| Storage temperature | -40 °C...+85 °C |
| Accuracy | < 0.1 % of measurement range |
| Temperature coefficient | < 0.01 % /K |
| Cut-off-frequency | 100 Hz |
| Insulation voltage | 2.5 kV |
| Rated voltage | 300 V |
| Pollution degree | 2 |
| Overvoltage category | II |
| Approvals | cULus 61010-1, cFMus Div.2, ATEX zone 2, IECEx Zone 2, DNV, GL |

Dimensions

| | | |
|--|-----------------|---------------------|
| Length x width x height | mm | 114.3 x 6.1 x 112.5 |
| Clamping range (nominal / min. / max.) | mm ² | 2.5 / 0.5 / 2.5 |

| | | |
|--|-----------------|---------------------|
| Length x width x height | mm | 114.3 x 6.1 x 112.5 |
| Clamping range (nominal / min. / max.) | mm ² | 2.5 / 0.5 / 2.5 |

| | | |
|--|-----------------|---------------------|
| Length x width x height | mm | 114.3 x 6.1 x 112.5 |
| Clamping range (nominal / min. / max.) | mm ² | 2.5 / 0.5 / 2.5 |

Note

Ordering data

| | |
|------------------------|--|
| Single-channel version | |
| Double-channel version | |

| Type | Qty. | Part No. |
|----------------------|------|------------|
| ACT20M CI-CO-ILP-S | 1 | 1176070000 |
| ACT20M 2CI-2CO-ILP-S | 1 | 1176080000 |

| Type | Qty. | Part No. |
|----------------------|------|------------|
| ACT20M- CI-CO-OLP-S | 1 | 1176040000 |
| ACT20M-2CI-2CO-OLP-S | 1 | 1176050000 |

Note

Accessories

| | |
|--------|--|
| Marker | |
|--------|--|

| Type | Qty. | Part No. |
|---------------------|------|------------|
| MF 5/7.5 MC NEUTRAL | | 1877680000 |

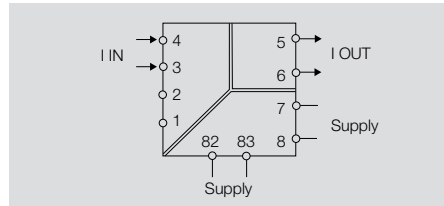
| Type | Qty. | Part No. |
|---------------------|------|------------|
| MF 5/7.5 MC NEUTRAL | | 1877680000 |

Note

DC isolator

- Isolating DC signals
- Optional power supply via the DIN-rail-bus
- 3 way isolation

ACT20M-CI-CO-S



Technical data

| | |
|--|---|
| Input | |
| Input current | 0/4...20 mA |
| Load resistance, current | < 75 Ω |
| Output | |
| Output current | 0/4...20 mA |
| Load resistance, current | < 600 Ω |
| General data | |
| Supply voltage | 24 V DC ± 30 % |
| Power consumption | 0.4 W (24 V supply / Passive input / 20 mA input & output / 100 Ω load) |
| Ambient temperature (operational) | -25 °C...+70 °C |
| Storage temperature | -40 °C...+85 °C |
| Accuracy | < 0.05 % of measurement range |
| Temperature coefficient | < 0.01 % span/K |
| Cut-off-frequency | 100 Hz |
| Insulation coordination | |
| Insulation voltage | 2.5 kV |
| Rated voltage | 300 V |
| Pollution degree | 2 |
| Overvoltage category | II |
| Approvals | |
| cULus 61010-1, cFMus Div.2, ATEX zone 2, IECEx Zone 2, DNV, GL | |

Dimensions

| | | |
|--|-----------------|---------------------------------|
| Length x width x height | mm | 114.3 x 6.1 x 112.5 mm |
| Clamping range (nominal / min. / max.) | mm ² | 2.5 / 0.5 / 2.5 mm ² |

Note

Ordering data

| Type | Qty. | Part No. |
|----------------|------|------------|
| ACT20M-CI-CO-S | 1 | 1175980000 |

Note

Ordering data

| Type | Qty. | Part No. |
|---------------------|------|------------|
| MF 5/7.5 MC NEUTRAL | | 1877680000 |

Note DIN-rail bus, refer to accessories page

Rail bus accessories

Preliminary product data!

CH20M BUS-PROFIL TS35x7.5/1000

Support section for bus PCB



- Support section for TS35 x 7.5
- Length: 250, 500 or 750 mm

Ordering data

| Type | Qty. | Part No. |
|-------------------------------|------|-------------------|
| CH20M BUS-PROFIL TS35x7.5/250 | 10 | 1248150000 |
| CH20M BUS-PROFIL TS35x7.5/500 | 10 | 1248160000 |
| CH20M BUS-PROFIL TS35x7.5/750 | 5 | 1248170000 |

CH20M BUS-PROFIL TS35x15/1000

Support section for bus PCB



- Support section for TS35 x 15
- Length: 250, 500 or 750 mm

Ordering data

| Type | Qty. | Part No. |
|------------------------------|------|-------------------|
| CH20M BUS-PROFIL TS35x15/250 | 5 | 1248180000 |
| CH20M BUS-PROFIL TS35x15/500 | 5 | 1248190000 |
| CH20M BUS-PROFIL TS35x15/750 | 5 | 1248210000 |

CH20M BUS 4.50/05 AU/1000

Bus PCB



- Bus PCB for use on TS35 x 7.5 and TS 35 x 15
- Length: 250, 500 or 750 mm
- Five conductor paths, gold plated
- Electrical rating: 63 V AC, 5 A/conductor path

Ordering data

| Type | Qty. | Part No. |
|--------------------------|------|-------------------|
| CH20M BUS 4.50/05 AU/250 | 10 | 1248220000 |
| CH20M BUS 4.50/05 AU/500 | 10 | 1248230000 |
| CH20M BUS 4.50/05 AU/750 | 5 | 1248240000 |

CH20M BUS-ADP TS35/1000

Cover plate



- Cover plate for rail bus
- Length: 250, 500 or 750 mm

Ordering data

| Type | Qty. | Part No. |
|------------------------|------|-------------------|
| CH20M BUS-ADP TS35/250 | 10 | 1248250000 |
| CH20M BUS-ADP TS35/500 | 10 | 1248260000 |
| CH20M BUS-ADP TS35/750 | 5 | 1248270000 |

CH20M BUS-AP LI TS35x7.5 & 15

End plate



- End plate for rail bus
- Fits on TS35 x 7.5 and TS 35 x 15
- Left

Ordering data

| Type | Qty. | Part No. |
|-------------------------------|------|-------------------|
| CH20M BUS-AP LI TS35x7.5 & 15 | 50 | 1193160000 |

CH20M BUS-AP RE TS35x7.5 & 15

End plate



- End plate for rail bus
- Fits on TS35 x 7.5 and TS 35 x 15
- Right

Ordering data

| Type | Qty. | Part No. |
|-------------------------------|------|-------------------|
| CH20M BUS-AP RE TS35x7.5 & 15 | 50 | 1193170000 |

