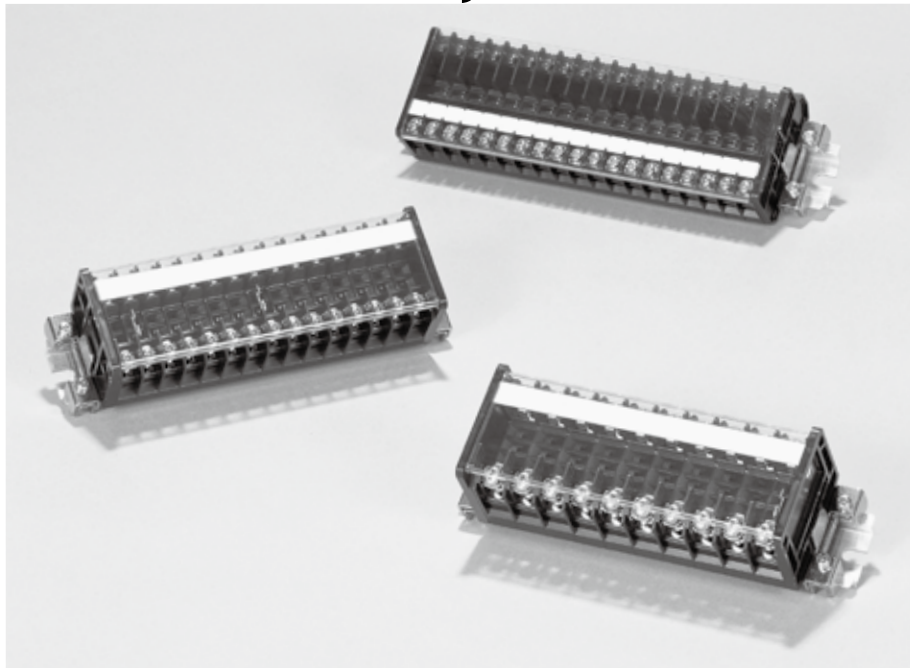




TV TYPE, TEV TYPE



FEATURES

- Terminal blocks that enable quick mounting and removal of a surge absorber.
- You can select a varistor (voltage-dependent resistor), arrester, etc. according to the purpose of use, enabling a desired circuit configuration.
- Available in a variety of lineup, the terminal blocks are selectable according to the purpose of use and can be used in combination with the rail mounting method.
- The up-screw terminal connection is used, enabling easy wiring. (The TEV type provides up-screw terminals on one side only.)

SPECIFICATIONS (RATINGS, PERFORMANCE)

| Type | TVS-3.5 TVS-3.5C | TVF-3.5 | TVA-3.5 | TVA-8 | TEV-2 | TEV-5.5 |
|---------------------------------------|--|--|--|--------------------|--------------------|--------------------|
| Rated insulation voltage (UI) | 250V | 600V | 250V | | | |
| Rated current-carrying capacity (Ith) | 20A | | | 30A | 20A | 30A |
| Max. wire size | 3.5mm ² | | | 8.0mm ² | 3.5mm ² | 8.0mm ² |
| Screw size | M4×10 | | | M5×12 | M4×10 | M5×12 |
| Withstand voltage | 2,500 V AC / 1 min. | 3,000 V AC / 1 min. | 2,500 V AC / 1 min. | | | |
| Lightning impulse | ±4kV / 3 times for each pole (1.2 / 50 μs) | ±7kV / 3 times for each pole (1.2 / 50 μs) | ±6kV / 3 times for each pole (1.2 / 50 μs) | | | |
| Ambient operating temperature | -25 to 50°C | | | | | |
| Storing temperature | -40 to 75°C | | | | | |
| Altitude | 2,000 m or less | | | | | |

How to order terminal blocks

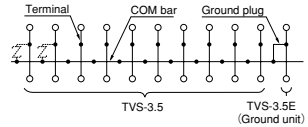
Note: The product can be ordered as an assembly only, except for the TVF type. For combination, up to 20 poles can be specified. For the earth unit, an earth plug is inserted in the conventional unit (For grounding)

How to order assembly

1 TVS series (Assembly)

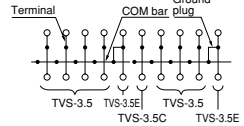
TVS - 3.5 × 10, 3.5E × 1 XF - 155

Basic type Size No. of poles Ground unit No. of poles Rail Assembly dimensions



TVS - 3.5 × 4, 3.5E × 1, 3.5C × 1, 3.5 × 3, 3.5E × 1 XF - 145

Basic type Size No. of poles Ground unit No. of poles COM bar dividing unit No. of poles Size No. of poles Ground unit No. of poles Rail Assembly dimensions

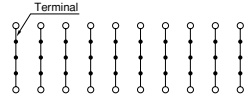


* Combinations other than the above can be freely selected. Please contact us when required.

2 TVF series (Assembly)

TVF - 3.5 × 10 XF

Basic type Size No. of poles Rail

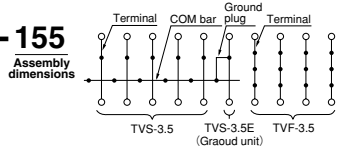


3 TVS, TVF series (Mix assembly)

TVS - 3.5 × 5, 3.5E × 1, TVF - 3.5 × 4 XF - 155

Basic type Size No. of poles Ground unit No. of poles End plate (E plate) Basic type Size No. of poles Rail Assembly dimensions

* The TVS and TVF types can be combined by inserting a side plate between individual units. (See the figure on the right.)

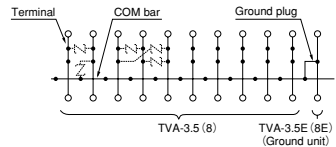


4 TVA series (Assembly)

TVA - 3.5 × 10, 3.5E × 1 XF - 155

Basic type Cable size No. of poles Ground unit size No. of poles Rail Assembly dimensions

| Code | Size | No. of poles | Code | Size | No. of poles |
|------|--------------------|--------------|------|--------------------|--------------|
| 3.5 | 3.5mm ² | | 3.5E | 3.5mm ² | |
| 8 | 8mm ² | | 8E | 8mm ² | |



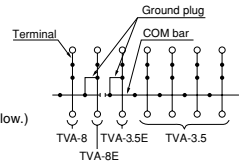
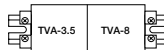
5 TVA series (Mix assembly)

TVA - 8 × 1, 8E × 1, 3.5E × 1, 3.5 × 4 XF - 125

Basic type Size No. of poles Ground unit No. of poles Ground unit No. of poles Size No. of poles Rail Assembly dimensions

* When you place an order, specify the earth plug position.

* The TVA-type models 3.5 and 8 can be combined directly without insertion of the side plate. (See the figure below.) Note: The COM bar shall be divided.

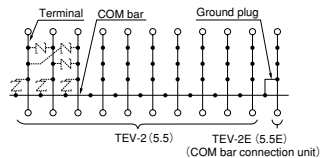


6 TEV series (Assembly)

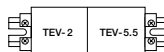
TEV - 2 × 10, 2E × 1 XF - 155

Basic type Wire size for varistor connecting unit No. of poles Wire size for COM bar connecting unit No. of poles Rail Assembly dimensions

| Code | Size | No. of poles | Code | Size | No. of poles |
|------|--------------------|--------------|------|--------------------|--------------|
| 2 | 2mm ² | | 2E | 2mm ² | |
| 5.5 | 5.5mm ² | | 5.5E | 5.5mm ² | |



* The TEV-type models 2 and 5.5 can be combined directly without insertion of the side plate. (See the figure on the right.)





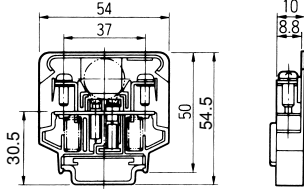
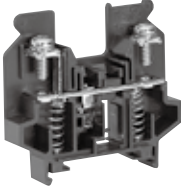
TV TYPE, TEV TYPE

STANDARD PRODUCTS

COM connecting method

TVS-3.5 (20A)

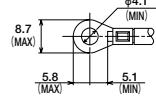
Applicable wire size: 1.25 to 3.5mm²



● Applicable accessories

| | |
|-----------------------|----------------------|
| End plate | TVE-3.5A TVE-3.5B |
| Standard marker strip | TUM-2 |
| Standard rail | TXB |
| End clamp | TXL |
| Cover | TUC-8 |
| Ground plug | TV Ground plug |

● Applicable crimp terminal

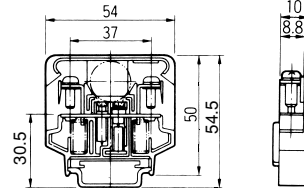
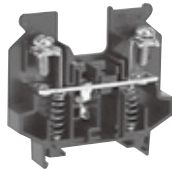


* With insulating cover

COM connecting method

TVS-3.5C (20A)

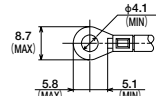
Applicable wire size: 1.25 to 3.5mm²



● Applicable accessories

| | |
|-----------------------|----------------------|
| End plate | TVE-3.5A TVE-3.5B |
| Standard marker strip | TUM-2 |
| Standard rail | TXB |
| End clamp | TXL |
| Cover | TUC-8 |

● Applicable crimp terminal



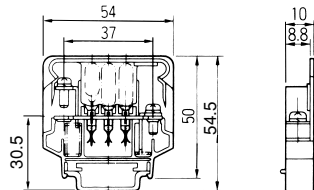
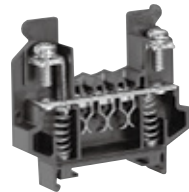
* With insulating cover

* For TVS-3.5, use this unit to divide COM.

Interconnecting method

TVF-3.5 (20A)

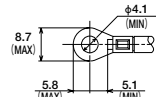
Applicable wire size: 1.25 to 3.5mm²



● Applicable accessories

| | |
|-----------------------|----------------------|
| End plate | TVE-3.5A TVE-3.5C |
| Standard marker strip | TUM-2 |
| Standard rail | TXB |
| End clamp | TXL |
| Cover | TUC-8 |

● Applicable crimp terminal

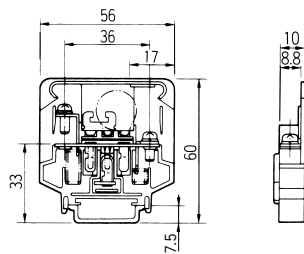
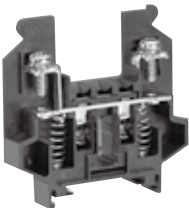


* With insulating cover

COM connecting method and interconnecting method

TVA-3.5 (20A)

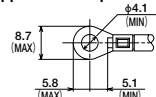
Applicable wire size: 1.25 to 3.5mm²



● Applicable accessories

| | |
|-----------------------|------------------|
| End plate | TVAE-A TVAE-B |
| Standard marker strip | TUM-2 |
| Standard rail | TXB |
| End clamp | TXL |
| Cover | TUC-8 |
| Ground plug | TV Ground plug |

● Applicable crimp terminal

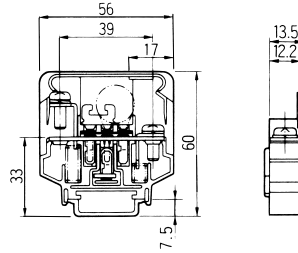
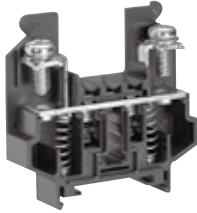


* With insulating cover

COM connecting method and interconnecting method

TVA-8 (30A)

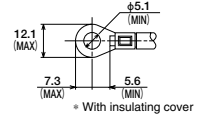
Applicable wire size: 2.0 to 8mm²



● Applicable accessories

| | |
|-----------------------|----------------|
| End plate | TVAE-A |
| | TVAE-B |
| Standard marker strip | TUM-2 |
| Standard rail | TXB |
| End clamp | TXL |
| Cover | TUC-8 |
| Ground plug | TV Ground plug |

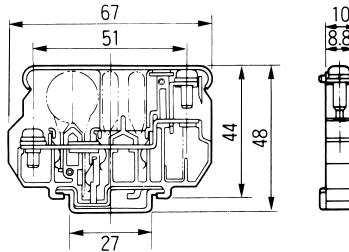
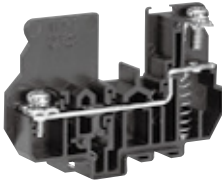
● Applicable crimp terminal



COM connecting method and interconnecting method

TEV-2 (20A)

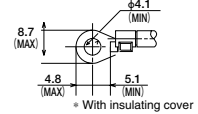
Applicable wire size: 0.75 to 3.5mm²



● Applicable accessories

| | |
|-----------------------|----------------|
| End plate | TEVE-A |
| | TEVE-B |
| Standard marker strip | TUM-1 |
| Standard rail | TXB |
| End clamp | TXL |
| Cover | TUC-15 |
| Ground plug | TE Ground plug |

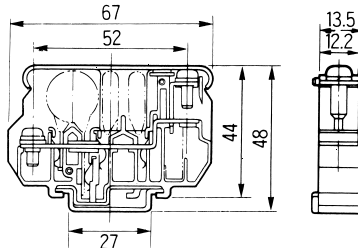
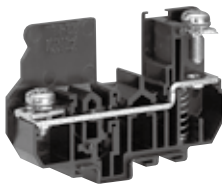
● Applicable crimp terminal



COM connecting method and interconnecting method

TEV-5.5 (30A)

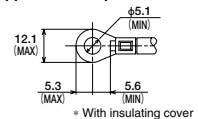
Applicable wire size: 2.0 to 8mm²



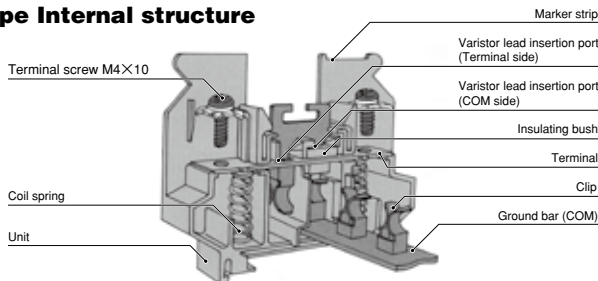
● Applicable accessories

| | |
|-----------------------|----------------|
| End plate | TEVE-A |
| | TEVE-B |
| Standard marker strip | TUM-1 |
| Standard rail | TXB |
| End clamp | TXL |
| Cover | TUC-15 |
| Ground plug | TE Ground plug |

● Applicable crimp terminal



TV, TEV type Internal structure





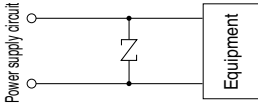
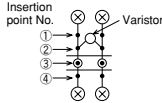
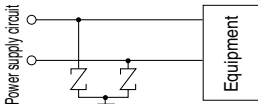
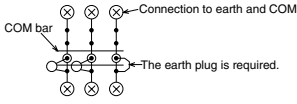
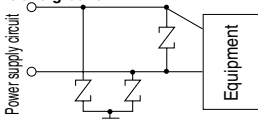
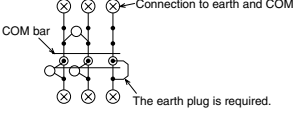
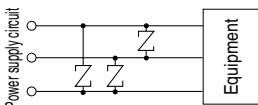
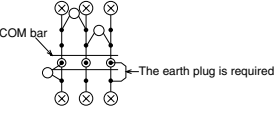
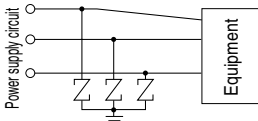
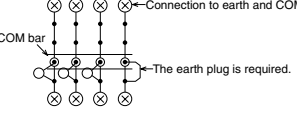
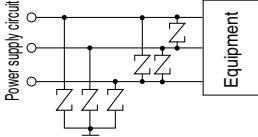
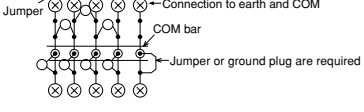
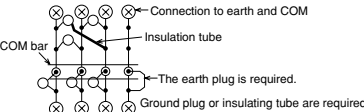
TV TYPE, TEV TYPE

How to use

| Structure | Circuit of 1 unit | Circuit diagram | Assembly schematic diagram | Varistor |
|------------------------|-------------------|-----------------|----------------------------|---|
| <p>●TVS-3.5</p> | | | | <p>Thickness 8mm (MAX)</p> |
| <p>●TVS-3.5E</p> | | | | <p>Use the earth plug.</p> |
| <p>●TVF-3.5</p> | | | | <p>a) Between adjacent different poles b) Between different poles separated by one unit</p> <p>Thickness 7mm (MAX)</p> <p>* TVF-3.5 can't do both common and ground connection directly.</p> |
| <p>●TVA-3.5, TVA-8</p> | | | | <p>a) Interconnection b) Common (earth) connection</p> <p>Thickness 6mm (MAX)</p> |
| <p>●TEV-2, TEV-5.5</p> | | | | <p>a) Interconnection b) Common (earth) connection</p> <p>Thickness 7mm (MAX)</p> <p>Thickness 8mm (MAX)</p> <p>* In case of TEV-5.5, the thickness (MAX) will be 10mm.</p> |

Use case examples (TEV type)

The surge absorber terminal blocks can be used in a wide range of applications, if device types and inserting positions are changed. An example of the connection is shown below. (TEV type)
For applications of other types and detailed usage, please contact us.

| Circuit diagram | TEV-2, TEV-5.5 |
|---|--|
| <p>1. Surge absorption between single-phase lines</p>  |  <p>To be inserted in insertion port ① or ②.</p> |
| <p>2. Surge absorption between single-phase line and ground</p>  |  <p>To be inserted in insertion port ③ or ④.</p> |
| <p>3. Surge absorption between single-phase lines, or between single-phase line and ground</p>  |  <p>Insert a line-to-line varistor in insertion port ① or ②, and a line-to-ground varistor in insertion ports ③ and ④.</p> |
| <p>4. Surge absorption between 3-phase lines</p>  |  <p>A varistor can be connected between 3-phase lines via the COM bar.</p> |
| <p>5. Surge absorption between 3-phase lines and ground</p>  |  |
| <p>6. Surge absorption between 3-phase lines, and between individual line and ground</p>  |  <p>Jumper or ground plug are required</p>  <p>Ground plug or insulating tube are required</p> |



TV TYPE, TEV TYPE

Reference

Precautions for use

Surge absorbers that can be mounted are described below.
For selection, refer to the reference material of each device manufacturer.

Varistor

●Application of varistor and inserting method

1. Since phase-to-phase impulse withstand voltage is lower than phase-to-ground, a varistor should be used for surge absorption.
2. Ideally, varistors should be inserted between individual phases and between each phase and ground.

●Varistor voltage

1. Normally, when a varistor is inserted between phases, select a varistor whose voltage is higher than line-to-line peak voltage by 10 to 20%.
2. Withstand voltage of devices and equipment other than varistors should be larger than the varistor voltage.
(Diode, transistor) Withstand voltage > Varistor voltage

(Diode) Withstand voltage > Varistor voltage
(Transistor)

●Withstand surge current and device diameter

Withstand surge current is proportional to the area of device, if the same material is used.

| Nominal device diameter (mm) | φ 5 | φ 7 | φ 10 | φ 14 | φ 20 |
|---|-----|------|------|------|-------|
| Area ratio (take φ 10 for 100) | 25 | 49 | 100 | 196 | 400 |
| Withstand surge current (A) (8 / 20μS 2 times) | 200 | 600 | 1250 | 2500 | 4000 |
| | 50* | 125* | 250* | 500* | 1000* |

* Varistor voltage: 22 V to 68 V

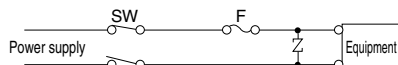
* A device diameter of 20 mm is applicable only when the terminal cover is not used.

●Device temperature rise

1. When surge is continuously applied, device temperature rises. In this case, heat radiation effect varies depending on the device diameter.
2. With progress of varistor deterioration, leak current occurs with the varistor at the peak value under normal voltage, resulting in device temperature rise.

●Countermeasures against overload

1. If it is expected that a surge current much larger than the rating flows through a varistor, connect the varistor to the line after the power supply fuse.

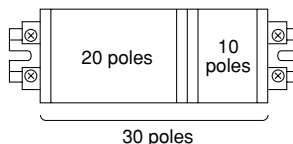


2. If an overcurrent interrupter is not provided for the circuit, connect a fuse to the varistor in series.

| Type | 5 series | 7 series | 10 series | 14 series | 20 series |
|-----------------------|----------|----------|-----------|-----------|-----------|
| Rated current of fuse | 1 to 2A | 2 to 3A | 3 to 5A | 3 to 10A | 5 to 15A |

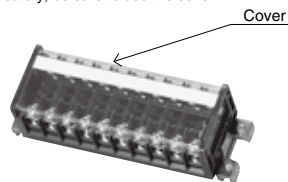
●Varistor mounting method

- ① When inserting a varistor
 - Cut and bend the varistor lead wire into the specified shape.
 - Use a varistor that meets the specifications.
- ② Common bar for grounding
 - The common bar for grounding is applicable to up to 20 poles. For 21 or more poles, the common bar should be divided into two for each pole.



③ Cover (TUC)

- To ensure safety, be sure to use the cover.

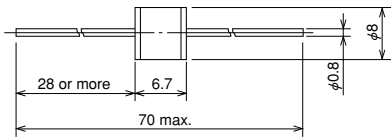


<List of applicable varistor>

| Manufacturer | Panasonic | NIPPON CHEMICON |
|----------------------|--|--|
| Model | | |
| Common to all models | ERZV-05D□□□□ ERZV-07D□□□□□ ERZV-09D□□□□□ | TND-05V□□□□K TND-07V□□□□K TND-09V□□□□K |
| TVS-3.5 | ~ERZV-10D751 ~ERZV-14D751 | ~TND-10V751K ~TND-12V751K ~TND-14V751K |
| TVF-3.5 | ~ERZV-10D751 ~ERZV-14D751 | ~TND-10V561K ~TND-12V561K ~TND-14V561K |
| TEV-2 | ~ERZV-10D751 ~ERZV-14D751 | ~TND-10V561K ~TND-12V561K ~TND-14V561K |
| TEV-5.5 | ~ERZV-10D751 ~ERZV-14D751 | ~TND-10V561K ~TND-12V561K ~TND-14V561K |
| TVA-3.5 TVA-8 | ~ERZV-10D431 ~ERZV-14D431 | ~TND-10V431K ~TND-12V431K ~TND-14V431K |

Ceramic • arrester

Y08U ※Made by SANKOSHA



■Specification (Rating • Efficiency)

| Item | Variation | Y08U-90B | Y08U-230B | Y08U-350B | Y08UZ-230B | Y08UZ-350B |
|--|-----------|-----------------------------|-----------|-----------|------------|------------|
| | | Discharge inception voltage | DC-V | 90±20% | 230±15% | 350±15% |
| Hold-over voltage | DC-V | 60 | | | 125 | |
| 1.2 / 50μs impulse discharge inception voltage | V | 1,000 | | | | |
| 8 / 20μs impulse current tolerance rate | A | 10,000 | | | | |
| 50Hz 1sec AC current tolerance rate | A | 10 | | | | |
| (Y08U-90B DC50V) Insulation resistance 100V DC | MΩ | 10,000 or more | | | | |
| Electrostatic capacity | pF | Y08U(z) : 1 or less | | | | |

■Features

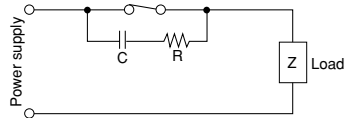
1. Because of large withstand discharge current, the arrester is resistant to repeated discharge.
2. The arrester enables quick response to an abnormal voltage.
3. Once an abnormal voltage is eliminated, the device will be immediately restored.
4. The arrester will not be activated by system power supply voltage.
5. Free from deterioration for a long period.

Capacitor, Resistance

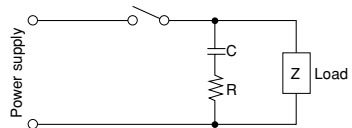
●Usage instructions

1. While a general surge absorbing device is inserted into the signal receiving side, a noise/spark killer (comprising CR or LC) is connected to the noise source side by forming the lead.
2. Generally, the capacitor and resistor are used in the following circuits.

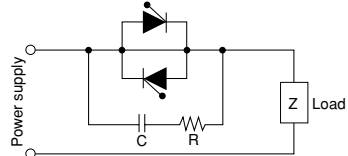
(a) When the circuit is almost closed



(b) When the circuit is almost opened



(c) When the circuit has no contact



3. Relative to normal operating current of a load circuit, C and R values should be selected as follows:

Capacitance $C = I^2/10$ to $I^2/20$ (μF)

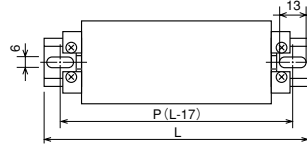
Resistance $R \approx$ DC resistance of load circuit (Ω)



TV TYPE, TEV TYPE

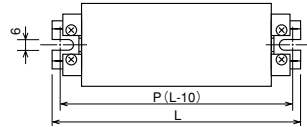
TABLE OF ASSEMBLED DIMENSIONS

TV type, TEV type assembly on punched rail
TXB-D type



| Type Pole | TVS-3.5, TVF-3.5, TVA-3.5 | | | TVA-8 | | | TEV-2 | | | TEV-5.5 | | | Type Pole |
|--------------|---------------------------|-----|-------|-------|-----|-------|-------|-----|-------|---------|-----|-------|--------------|
| | P | L | Rail | P | L | Rail | P | L | Rail | P | L | Rail | |
| 1 | 60 | 77 | XD-4 | 60 | 77 | XD-4 | 60 | 77 | XD-4 | 60 | 77 | XD-4 | 1 |
| 2 | 60 | 77 | XD-4 | 60 | 77 | XD-4 | 60 | 77 | XD-4 | 60 | 77 | XD-4 | 2 |
| 3 | 60 | 77 | XD-4 | 80 | 97 | XD-5 | 60 | 77 | XD-4 | 80 | 97 | XD-5 | 3 |
| 4 | 80 | 97 | XD-5 | 100 | 117 | XD-6 | 80 | 97 | XD-5 | 100 | 117 | XD-6 | 4 |
| 5 | 80 | 97 | XD-5 | 100 | 117 | XD-6 | 80 | 97 | XD-5 | 100 | 117 | XD-6 | 5 |
| 6 | 100 | 117 | XD-6 | 120 | 137 | XD-7 | 100 | 117 | XD-6 | 120 | 137 | XD-7 | 6 |
| 7 | 100 | 117 | XD-6 | 140 | 157 | XD-8 | 100 | 117 | XD-6 | 140 | 157 | XD-8 | 7 |
| 8 | 120 | 137 | XD-7 | 140 | 157 | XD-8 | 120 | 137 | XD-7 | 140 | 157 | XD-8 | 8 |
| 9 | 120 | 137 | XD-7 | 160 | 177 | XD-9 | 120 | 137 | XD-7 | 160 | 177 | XD-9 | 9 |
| 10 | 140 | 157 | XD-8 | 180 | 197 | XD-10 | 140 | 157 | XD-8 | 180 | 197 | XD-10 | 10 |
| 11 | 140 | 157 | XD-8 | 180 | 197 | XD-10 | 140 | 157 | XD-8 | 180 | 197 | XD-10 | 11 |
| 12 | 160 | 177 | XD-9 | 200 | 217 | XD-11 | 160 | 177 | XD-9 | 200 | 217 | XD-11 | 12 |
| 13 | 160 | 177 | XD-9 | 220 | 237 | XD-12 | 160 | 177 | XD-9 | 220 | 237 | XD-12 | 13 |
| 14 | 180 | 197 | XD-10 | 220 | 237 | XD-12 | 180 | 197 | XD-10 | 220 | 237 | XD-12 | 14 |
| 15 | 180 | 197 | XD-10 | 240 | 257 | XD-13 | 180 | 197 | XD-10 | 240 | 257 | XD-13 | 15 |
| 16 | 200 | 217 | XD-11 | 260 | 277 | XD-14 | 200 | 217 | XD-11 | 260 | 277 | XD-14 | 16 |
| 17 | 200 | 217 | XD-11 | 260 | 277 | XD-14 | 200 | 217 | XD-11 | 260 | 277 | XD-14 | 17 |
| 18 | 220 | 237 | XD-12 | 280 | 297 | XD-15 | 220 | 237 | XD-12 | 280 | 297 | XD-15 | 18 |
| 19 | 220 | 237 | XD-12 | 300 | 317 | XD-16 | 220 | 237 | XD-12 | 300 | 317 | XD-16 | 19 |
| 20 | 240 | 257 | XD-13 | 300 | 317 | XD-16 | 240 | 257 | XD-13 | 300 | 317 | XD-16 | 20 |

TV type, TEV type assembly on U-cut rail
TXB-F type



| Type Pole | TVS-3.5, TVF-3.5, TVA-3.5 | | | TVA-8 | | | TEV-2 | | | TEV-5.5 | | | Type Pole |
|--------------|---------------------------|-----|--------|-------|-----|--------|-------|-----|--------|---------|-----|--------|--------------|
| | P | L | Rail | P | L | Rail | P | L | Rail | P | L | Rail | |
| 1 | 45 | 55 | XF-55 | 50 | 60 | XF-60 | 45 | 55 | XF-55 | 50 | 60 | XF-60 | 1 |
| 2 | 55 | 65 | XF-65 | 65 | 75 | XF-75 | 55 | 65 | XF-65 | 60 | 70 | XF-70 | 2 |
| 3 | 65 | 75 | XF-75 | 75 | 85 | XF-85 | 65 | 75 | XF-75 | 75 | 85 | XF-85 | 3 |
| 4 | 75 | 85 | XF-85 | 90 | 100 | XF-100 | 75 | 85 | XF-85 | 85 | 95 | XF-95 | 4 |
| 5 | 85 | 95 | XF-95 | 105 | 115 | XF-115 | 85 | 95 | XF-95 | 100 | 110 | XF-110 | 5 |
| 6 | 95 | 105 | XF-105 | 120 | 130 | XF-130 | 95 | 105 | XF-105 | 115 | 125 | XF-125 | 6 |
| 7 | 105 | 115 | XF-115 | 130 | 140 | XF-140 | 105 | 115 | XF-115 | 130 | 140 | XF-140 | 7 |
| 8 | 115 | 125 | XF-125 | 145 | 155 | XF-155 | 115 | 125 | XF-125 | 140 | 150 | XF-150 | 8 |
| 9 | 125 | 135 | XF-135 | 160 | 170 | XF-170 | 125 | 135 | XF-135 | 155 | 165 | XF-165 | 9 |
| 10 | 135 | 145 | XF-145 | 170 | 180 | XF-180 | 135 | 145 | XF-145 | 170 | 180 | XF-180 | 10 |
| 11 | 145 | 155 | XF-155 | 185 | 195 | XF-195 | 145 | 155 | XF-155 | 180 | 190 | XF-190 | 11 |
| 12 | 155 | 165 | XF-165 | 200 | 210 | XF-210 | 155 | 165 | XF-165 | 195 | 205 | XF-205 | 12 |
| 13 | 165 | 175 | XF-175 | 215 | 225 | XF-225 | 165 | 175 | XF-175 | 210 | 220 | XF-220 | 13 |
| 14 | 175 | 185 | XF-185 | 225 | 235 | XF-235 | 175 | 185 | XF-185 | 220 | 230 | XF-230 | 14 |
| 15 | 185 | 195 | XF-195 | 240 | 250 | XF-250 | 185 | 195 | XF-195 | 235 | 245 | XF-245 | 15 |
| 16 | 195 | 205 | XF-205 | 255 | 265 | XF-265 | 195 | 205 | XF-205 | 250 | 260 | XF-260 | 16 |
| 17 | 205 | 215 | XF-215 | 265 | 275 | XF-275 | 205 | 215 | XF-215 | 265 | 275 | XF-275 | 17 |
| 18 | 215 | 225 | XF-225 | 280 | 290 | XF-290 | 215 | 225 | XF-225 | 275 | 285 | XF-285 | 18 |
| 19 | 225 | 235 | XF-235 | 295 | 305 | XF-305 | 225 | 235 | XF-235 | 290 | 300 | XF-300 | 19 |
| 20 | 235 | 245 | XF-245 | 305 | 315 | XF-315 | 235 | 245 | XF-245 | 305 | 315 | XF-315 | 20 |



TV TYPE, TEV TYPE

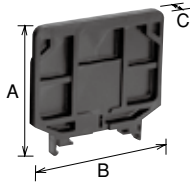
ACCESSORIES

LIST OF APPLICABLE ACCESSORIES

| Accessory | | End plate | Marker strip | | Marker strip case | Marker sheet | Aluminum rail | | End clamp | | Cover | Ground plug |
|-----------|----------|--------------------|--------------|--------------------------|--------------------------|--------------|---------------|-----|-----------|--------|------------|-----------------|
| | | | | | | | | | | | | |
| | | | | | | | | | | | Applicable | Semi-applicable |
| TV TYPE | TVS-3.5 | TVE-3.5A, TVE-3.5B | TUM-2 | TUM marker strip case 10 | TUM marker strip case 10 | TXB | TUB TKB | TXL | TUL-W TJL | TUC-8 | | TV Ground plug |
| | TVS-3.5C | | | | | | | | | | | TV Ground plug |
| | TVF-3.5 | | | | | | | | | | | TV Ground plug |
| | TVA-3.5 | | | | | | | | | | | TV Ground plug |
| | TVA-8 | | | | | | | | | | | TV Ground plug |
| TEV TYPE | TEV-2 | TEVE-A, TEVE-B | TUM-1 | TUM marker strip case 8 | TUM marker strip case 8 | TXB | TUB TKB | TXL | TUL-W TJL | TUC-15 | | TE Ground plug |
| | TEV-5.5 | | | | | | | | | | | TE Ground plug |

End plate

(Order unit: 100)



| Type name | TVE-3.5A TVE-3.5B TVE-3.5C | TVAE-A TVAE-B | TEVE-A TEVE-B |
|-----------|----------------------------------|------------------|------------------|
| A | 50.5 | 56 | 46 |
| B | 54 | 56 | 67 |
| C | 5 | 5 | 3 |

* Plates A and B should be used as a set.

Marker strip

(Order unit: 100)



Standard thickness:
t = 1.0 mm

| Type name | TUM-1 | TUM-2 |
|-----------|-------|-------|
| A | 8 | 10 |

* C = 0.5 mm type is available.

Marker strip case

(Order unit: 100)

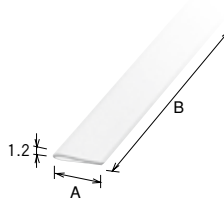


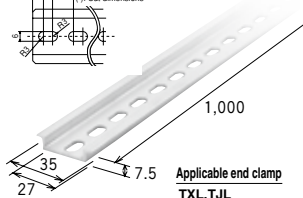
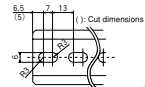
Plate thickness: t = 0.3 mm
Transparent case

| Type name | TUM marker strip case 8 | TUM marker strip case 10 |
|-----------|-------------------------|--------------------------|
| A | 8 | 10.2 |
| B | 1,000 | 1,000 |

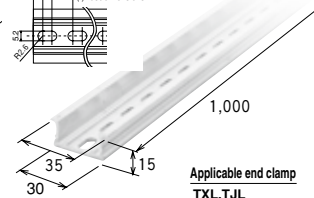
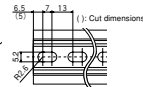
Aluminum rail

(Order unit: 50)

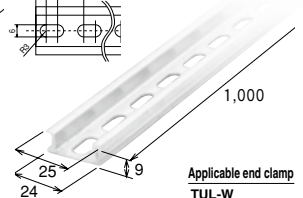
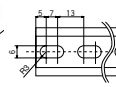
●TXB (DIN rail)



●TKB (DIN rail)



●TUB





TV TYPE, TEV TYPE

ACCESSORIES

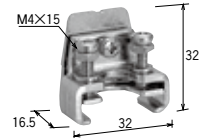
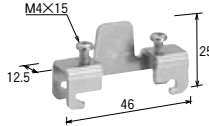
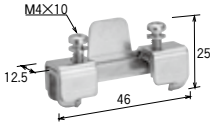
End clamp

(Order unit: 50)

●TXL (for TXB)

●TJL (for TXB)

●TUL-W (for TUB)



Cover

(Order unit: 20)

Name plate mount

(Order unit: 50)



●TX NP mount S ●TX NP mount lens



(Assembled state)

* The NP mount can be attached to TXL (end clamp).

| Type name | TUC-8 | TUC-15 |
|-----------|-------|--------|
| A | 50 | 62 |
| B | 1,000 | 1,000 |
| C | 7 | 7.5 |

Ground plug

(Order unit: 10)

●TV type

TV Ground plug



This plug is inserted in the earth unit.
This is connected to the COM bar, through
which the circuit is grounded.

●TEV type

TE Ground plug

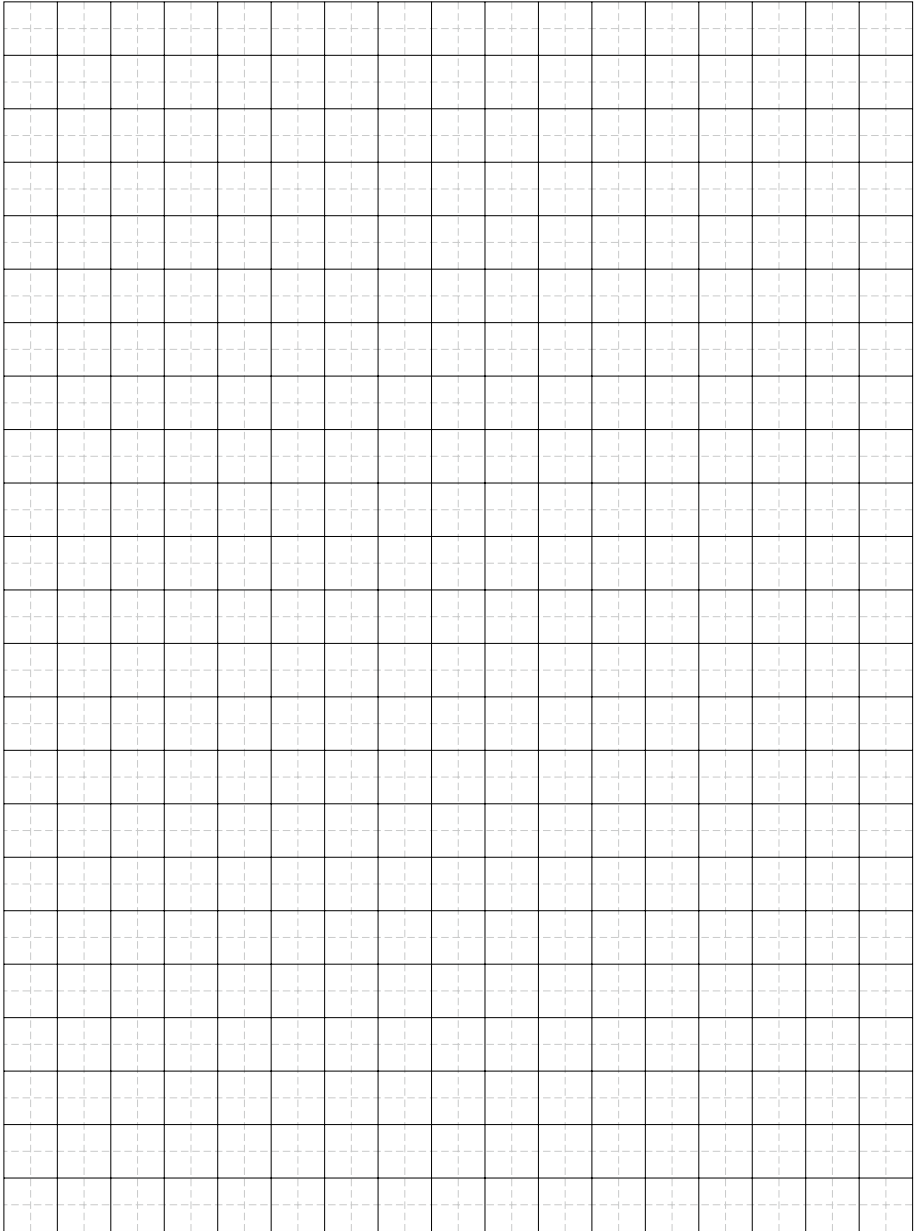


Applicable to COM and wiring unit.

Rail cap

Please refer to the page C15 for the rail cap.

CONNECTING DEVICES



A SWITCH

PILOT LAMP &
B INDICATOR

C CONNECTING
DEVICES

D ELECTRONIC
DEVICES

E CONTROL
CENTER PARTS