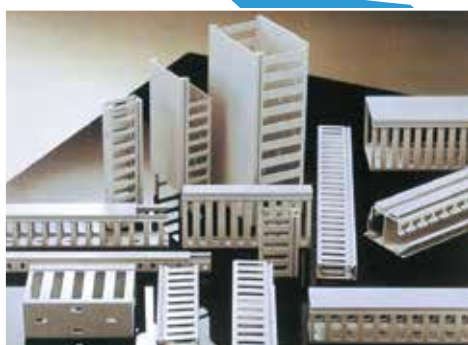


TOGI

WIRING ACCESSORIES and PRODUCTS for PANEL



TOYOGIKEN CO.,LTD.

CONTENTS

WIRING DUCT

Wiring Ducts	3
Separator	4
Side Hole Specifications	5~6
Bottom Hole Specifications	5~6
Products subject to Processing Services	7

ECO-RELATED PRODUCTS

Halogen-free Fire Resistant PP Duct	8
TDEP Duct series	

DUCT CUTTER

Duct Cutter	9
Duct Nippers	9

WIRING BRACKET

Wiring Bracket	10
Wiring Bracket Hanger	10

WIRING PROTECTION TUBES

Button Tube	11
Button Tube Clear type	11
Hook-and-loop Fastener Tube	12
Slide Lock Tube	12
BS Tube Button Type	13
S Tube Hook and Loop type	13
Noise Protecting Tube Slide Lock type	14
Noise Protecting Tube for Flat Cables	14
BS Tube Button type	15
S Tube Hook and Loop Fastener type	15
Noise Protecting Tube Slide Lock type	15
Heat Shrink Shield Tube THSST	16
Wiring Flexible Tube	17
Fixture for Wiring Flexible Tube	18
Corrugate Tube	19
Through tube	19
Spiral Tube	20
Flat Tube	20

CABLE TIE

Biding-Band	21
Tie-Base	21

RUBBER&BUSH

Rubber Sponge	22
Bush	22

MOUNTING RAIL

DAV Type (IEC/DIN)	23
DAS Type (IEC/DIN)	23
D I S Type (IEC/DIN)	23
A S Type	24
I A S Type	24
Hand-operated cutter for aluminum rail	25
Electric cutter for aluminum rail	25

ACCESSORIES for MOUNTING RAIL

Rail Supporting Tool	26
Rail Supporting Tool (movable)	26
GTU series & Mounting rail	27
Rail-Endcap For 35mm Mounting Rail	27

WIRING DUCT



Wiring Ducts

No.E481718

RoHS

Material	Rigid vinyl chloride (Self-extinguishing material rated 94V-0)
Color	Gray
Cut length	2m
Model No. format	TD- (Model No.) - (Length) - (Side hole type) Example: Model 26, Length 2m and side hole H type → TD-26-20H
Operating temperature	-15°C~50°C

Part No.	TD-23	TD-53	TD-N23	TD-33	TD-24	TD-34
Section view						
Standard length(mm)	2,000	2,000	2,000	2,000	2,000	2,000
Wire storage capacity (AWG14)	15	50	20	30	40	55
Qty. per package (set)	50	40	50	40	40	40

Part No.	TD-44	TD-64	TD-74	TD-26	TD-36	TD-46
Section view						
Standard length(mm)	2,000	2,000	2,000	2,000	2,000	2,000
Wire storage capacity (AWG14)	60	100	105	60	65	90
Qty. per package (set)	40	20	20	40	30	30

Part No.	TD-56	TD-66	TD-76	TD-86	TD-106	TD-156
Section view						
Standard length(mm)	2,000	2,000	2,000	2,000	2,000	2,000
Wire storage capacity (AWG14)	110	130	150	190	240	310
Qty. per package (set)	20	20	20	40	10	6

Part No.	TD-137	TD-28	TD-38	TD-48
Section view				
Standard length(mm)	2,000	2,000	2,000	2,000
Wire storage capacity (AWG14)	340	70	90	120
Qty. per package (set)	6	24	24	18

WIRING DUCT

WIRING DUCT

Part No.	TD-58	TD-68	TD-88	TD-108	TD-210	TD-310
Section view						
Standard length(mm)	2,000	2,000	2,000	2,000	2,000	2,000
Wire storage capacity (AWG14)	160	200	260	320	100	110
Qty. per package (set)	12	12	14	8	20	20

Part No.	TD-410	TD-610	TD-810	TD-1010	TD-1510	TD-1015
Section view						
Standard length(mm)	2,000	2,000	2,000	2,000	2,000	2,000
Wire storage capacity (AWG14)	160	240	270	340	510	510
Qty. per package (set)	18	12	12	6	6	4

Using UL-approved resin
UL94V-0 No.E171549

Physical Properties

Item	Unit	Standard value
Specific gravity	JIS K-7112	—
Tensile strength	JIS K-7113	Mpa
Elongation	JIS K-7113	%
Charpy impact value	JIS K-7111	KJ/m ²
Flexible temperature	JIS K-6745	°C
Rockwell hardness	JIS K-7202	—
Volume specific resistance	ASTM D257	Ω·m
Withstand voltage	JIS C-8430	KV/mm
Dielectric constant		PF/m
Specific heat		J/(kg·K)
Coefficient of thermal expansion		7×10 ⁻⁵

Part No. Configuration

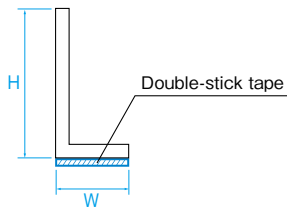
TD- (Size) (Length) (Side hole shape)
23~1510 - 20 - H.T.L.L.L.

Separator

Using UL-approved resin

RoHS

Section View



- MaterialRigid vinyl chloride
(Self-extinguishing material rated 94V-0)
- ColorGray
- Qty. of per package10pcs
- Operating temperature−20°C~50°C

Side hole H type

Part No.	W	H	Length	Part No.	W	H	Length
TDS-60H	12	55	1,000	TDS-60LL	12	55	1,000
TDS-80H	15	75		TDS-80LL	15	75	
TDS-100H	15	95		TDS-100LL	15	95	

Side hole LL type

Side Hole Specifications

(mm)

Part No. Hole type	TD-23·53	TD-N23·33	TD-24·34·44·64·74	TD-26·36·46·56·66 76·86·106
H	 (No H type for TD-53)			
T				
L				
LL				

Bottom Hole Specifications

Part No.	TD-23·N23	TD-33·53·24·34·44 26·36·46·56·28·38 48·58·210·310·410	TD-64·74·66·76·86106 68·88·108·610·810	TD-137

Side Hole Specifications

Part No. Hole type	TD-137	TD-28·38·48·58 68·88·108	TD-210·310·410·610 810·1010·1015	TD-156·1510
H			() TD-1015 	
T				
L				() TD-156
LL				

Bottom Hole Specifications

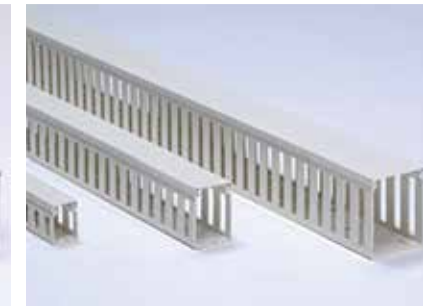
Part No.	TD-1010·1015	TD-156·1510

Products subject to Processing Services

RoHS



PVC

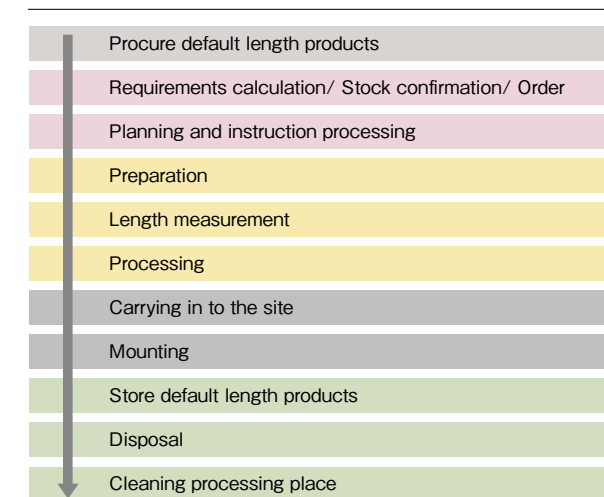


modified PPE

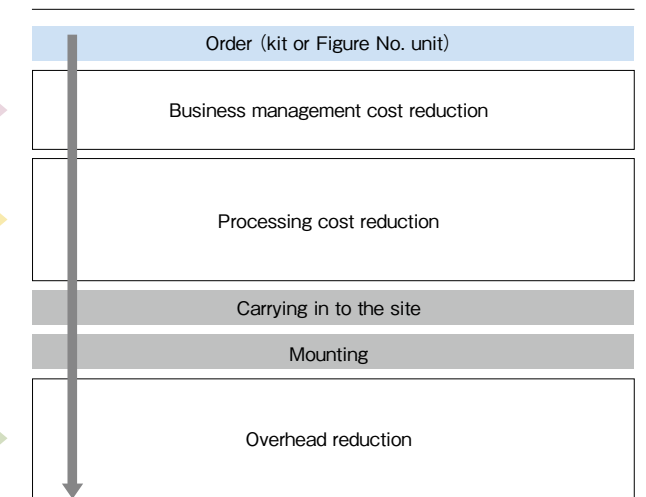
Benefits of using wiring duct processing service

- Total cost can be reduced with the wiring duct processing service.
- The time and effort of order management and space can be reduced.
- Duct processing work / processing place is unnecessary.
- By "visualization" of the introduction and installation sites, losses such as for sorting and judgment can be reduced.
- The time and effort of management and disposal of material leftover is unnecessary.
- Dangerous work can be reduced.

Before



After



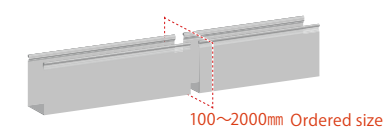
When you do the processing as a component wiring duct, such costs will occur in addition to the material cost.

Material cost	40%	40%
Processing cost (Direct labor costs)	40%	
Management cost (Indirect labor costs)	0%	60%
Overhead cost (Storage, industrial waste and cleaning costs)	10%	Reducible cost

※This is an example based on our own research.

Details of processing service

Duct cutting



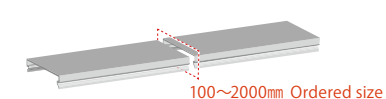
Specifying mounting (bottom) hole starting position



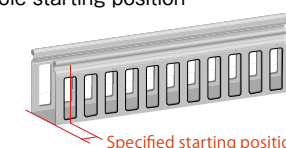
Figure number marking



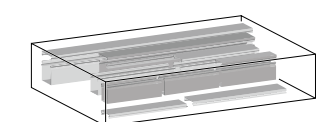
Duct cover cutting



Specifying Wiring (side) hole starting position



Kit (set) packing



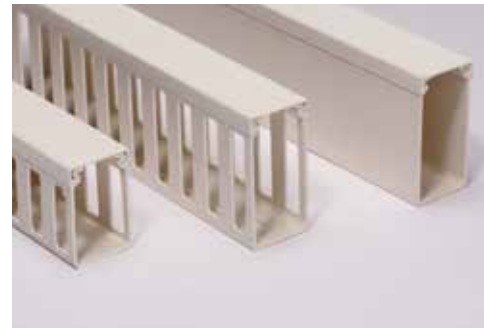
Specification change of the bottom hole, processing hole round bottom hole and come-side hole cut-out.

ECO-RELATED PRODUCTS

Halogen-free Fire Resistant PP Duct

TDEP Duct series

RoHS



Features

- Environmentally conscious (uses materials not containing halogen substances)
 - Excellent in oil resistance and heat resistance
 - Weight reduction of equipment is possible due to light weight resin
 - Economical compared to conventional ECO Duct
 - The side hole is widened to 12.5 mm
 - Supports various regulations and standards (RoHS Directive, REACH regulations, etc.)
 - Can be easily cut with the recommended tool such as birdie cutter.
- ※ To cut, please use a cutter for resin cutting
 ※ Storage method After removing from the packing, keep flat since leaving the product stored at an angle may cause deformation

Operating temperature -20°C~100°C

Material Halogen-free fire retardant PP duct

Color Ivory (Munsell 2.5Y 9/1)

Cut length 2m

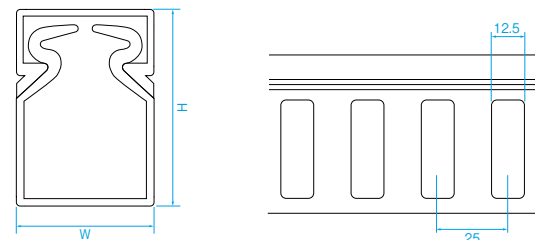
Part numbering format TDEP-(Model)-(Length)-(Type of side hole)
 Example:「Mode88,Length2m,Side hole M type」⇒「TDEP-88-20-M」

TDEP Duct series

Part No.	Dimension of cutting surface (mm)		Length (mm)	Side hole type	Qty. per package
	Width (W)	Height (H)			
TDEP-24-20	20	40	2,000	(M type only)	10pcs
TDEP-34-20	30				10pcs
TDEP-44-20	40				10pcs
TDEP-26-20	20	60			10pcs
TDEP-36-20	30				10pcs
TDEP-46-20	40				10pcs
TDEP-66-20	60	80			10pcs
TDEP-38-20	30				10pcs
TDEP-48-20	40				10pcs
TDEP-68-20	60	100			10pcs
TDEP-88-20	80				10pcs
TDEP-410-20	40				10pcs
TDEP-610-20	60	100			10pcs
TDEP-810-20	80				10pcs

Dimensions

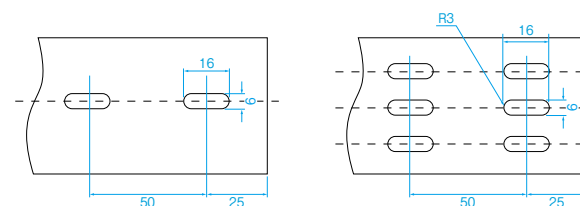
Section view



Width 60 and under

Width 80 and over

Bottom-hole specifications



Duct Cutter

RoHS



Features

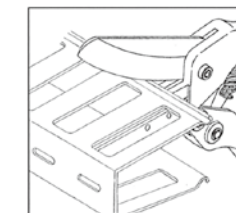
- The bridge cutter is a cutoff tool whose cutting part has an optimal shape for cutting hard and soft plastics.
- A combination of the concaves on the receiving part with the slide cover or the square attachment permits various plastic material to be cut easily, such as wiring ducts and terminal box covers.

Purpose of Use

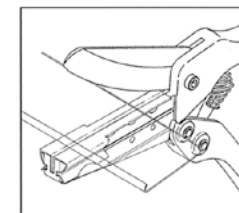
Designed to cut plastic materials such as wiring ducts, terminal box covers, and laces/braids for telecommunications.

Example of Use

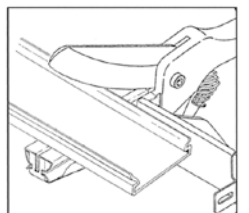
1. Cutting wiring duct.



2. Cutting terminal box cover.



3. Cutting duct cover.



Safety Instructions

Before using, be sure to read the instruction manual to ensure proper use of the product.

Part No.	Length (mm)	Length of Blade	Accessories
TC-100	270mm	115mm	Slide cover A, slide cover B and square attachment

※Each of the attachments is sold separately as a replacement part.

Duct Nippers

RoHS



Features

- The duct nippers can cut the pillar section (up to 100mm long) between the side holes (wiring holes) of a wiring duct.
- The spring-operated handles require no pulling them back manually.
- The cutting edges are of pinching-off type that provides a smooth cut surface.
- The advantage in producing a cutting force permits a duct to be cut with a minimum force.

Purpose of Use

The duct nippers are designed to cut the pillar section between the side holes (wiring holes) of a wiring duct. Besides, it can be used to cut the gates deep inside a resin product.

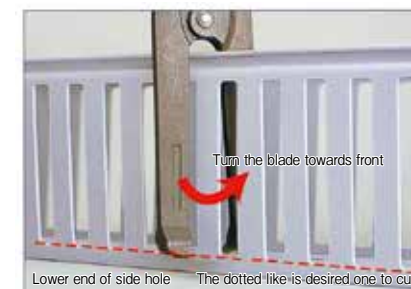
Part No.	Total Length	Depth	Width of Cutting Edge	Weight
TDN-100	327mm	96mm	18.5mm	460g

Safety Instructions

Before using, be sure to read the instruction manual to ensure proper use of the product.

How to Use

To cut in alignment with the lower ends of side holes:



1. Apply the tip of one blade to the lower end of a side hole. Turn the blade toward front while lightly gripping the handles.



2. Cut the pillar with the outer side of the blade facing straight in front.



3. The pillar can be cut in line with the lower ends of side holes.

WIRING PROTECTION TUBES

Hook-and-loop Fastener Tube

RoHS



Features

- Hook-and-loop Fastener allows the tube to be fit and detached easily without using a tool.
- Available in 8 sizes from 15φ to 100φ, the tube fits any wiring variation for perfect coating.
- Quick and easy to fit and detach, the tube makes it easy to change or check the wiring.
- The material is so flexible that it can fit any wiring shape and help produce neat appearance.
- Partially detachable, the tube permits the branching of wiring.
- The reversible type (black and gray) can be flexibly used depending on applications and purposes.
- The reversible type (black and gray) meets two color needs, contributing to inventory reduction.

Color

- Reversible type (black and gray)
- Gray

Operating temperature

−15°C~70°C

Packing Method and Unit

[25m]

Packed in a compact cardboard box, the tube can be pulled out in required length from the slot of the box.

Part Numbering Rule

◆ Reversible type (R)
TMT-N (Nominal Size) R Example: Nominal size of 20φ⇒TMT-N20R

◆ Gray type (G)
TMT-N (Nominal Size) G Example: Nominal size of 20φ⇒TMT-N20G

Part No.	Nominal Size	Length	Materials/Characteristics
TMT-N15	15φ	25m	Sheet part: Fire-resistant vinyl chloride with polyester fabric
TMT-N20	20φ		
TMT-N25	25φ		
TMT-N30	30φ		
TMT-N40	40φ		Interlock part: Hook-and-loop fasteners Width of hook and loop fasteners 15φ-20φ: 12mm 25φ-100φ: 16mm
TMT-N50	50φ		
TMT-N70	70φ		
TMT-N100	100φ		

Sheet part VTM-O compliant suitability

Slide Lock Tube

RoHS



Features

- Excellent workability is ensured by the material of the interlock section that changes its hardness little even at low temperatures.
- The interlock section provides excellent air-tightness to prevent the inclusion of external dust.
- Available in 10 sizes from 10φ to 100φ, the tube fits any wiring variation for perfect coating.
- The material is so flexible that it can fit any wiring shape and help produce neat appearance.

Operating temperature

The tube can be interlocked easily using the dedicated slider (option).

Packing

- The tube can be pulled out from the slot of the outer box.
- Not using any metallic parts, the bobbin and the outer box can be readily discarded.

Color

- Black
- Gray

Operating temperature

−15°C~70°C

Part No.	Nominal Size	Length	Materials/Characteristics
TSL-10	10ϕ	50m	Sheet part: Fire-resistant vinyl chloride with polyester fabric
TSL-15	15ϕ		
TSL-20	20ϕ		
TSL-25	25ϕ		
TSL-30	30ϕ		Interlock part: Fire-resistant semi-rigid vinyl chloride
TSL-35	35ϕ		
TSL-40	40ϕ		
TSL-50	50ϕ		
TSL-70	70ϕ	25m	
TSL-100	100ϕ		

UL qualified (sheet part) Fire resisting type
VTM-O NO.E242175

Part Numbering Rule

◆ Black type
TSL- (Nominal Size)
Example: Nominal size of 10φ⇒TSL-10

◆ Gray type
TSL- (Nominal Size) G
Example: Nominal size of 25φ⇒TSL-25G

Dedicated slider (option)

WIRING PROTECTION TUBES

BS Tube

Button Type

RoHS



Features

- This is the button tube which is used aluminum foil with shielding effectiveness against noise.
- It is quick-release without any tools by one touch button.
- There are 9 sizes (10φ-100φ), so it can be coated promptly for wiring.
- It can be fit any kinds of shapes because of flexible material.

Packing

- The tube can be pulled out from the slot of the external box.
- Not using any metallic parts, the bobbin and the external box can be readily discarded.

Color

Black

Operating temperature

−15°C~70°C

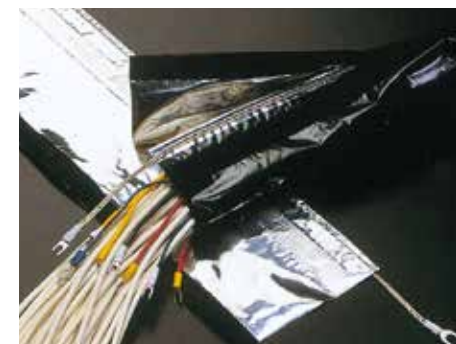
Part No.	Nominal Size	Length	Materials/Characteristics
TMBS-10	10φ	25m	Sheet part: Fire-resistant flexible vinyl chloride +PET+Aluminum foil +1.25sq mesh texture (Plainly braided tinned copper mesh)
TMBS-15	15φ		
TMBS-20	20φ		
TMBS-25	25φ		
TMBS-30	30φ		
TMBS-40	40φ		Interlock part: Snap buttons (Polyacetal Resins)
TMBS-50	50φ		
TMBS-70	70φ		
TMBS-100	100φ		

Sheet part V-O compliant suitability

S Tube

Hook and Loop type

RoHS



Features

- Magic fastener tube that uses aluminum foil with high shielding effects to control noise.
- Magic fastener design permits the tube to be fit and detached easily without using a tool.
- Available in 7 sizes from 20φ to 100φ, the tube fits any wiring variation for perfect coating.
- The material is so flexible that it can fit any wiring shape and help produce neat appearance.

Packing

- The external case has a slot from which you can pull the tube out to use.
- Not using any metallic parts, the bobbin and the external case can be readily disposed of.

Color

Black

Operating temperature

−15°C~70°C

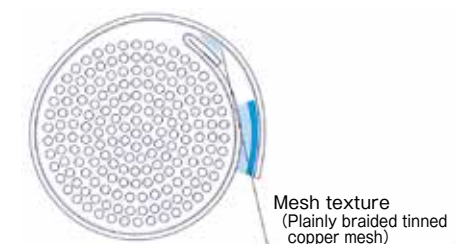
How to Use

- Wrap the tube around pieces in the way that the aluminum foil comes inside, and interlock the tube so that the braided wire contacts the aluminum foil.
- The braided wire can be used as a ground wire

Part No.	Nominal Size	Length	Materials/Characteristics
TMP-20	20φ	25m	Sheet part: Fire-resistant flexible vinyl chloride +PET+Aluminum foil +1.25sq mesh texture (Plainly braided tinned copper mesh)
TMP-25	25φ		
TMP-30	30φ		
TMP-40	40φ		
TMP-50	50φ		Interlock part: Hook & loop fasteners (width: 16mm)
TMP-70	70φ		
TMP-100	100φ		

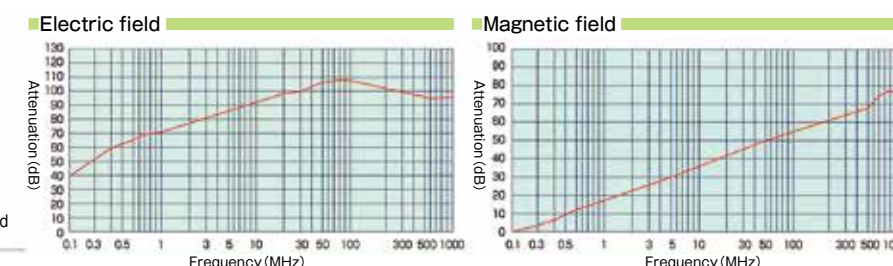
Sheet part V-O compliant suitability

Section View



Mesh texture
(Plainly braided tinned copper mesh)

Shielding Effects



※The above line graph are data of a noise protect button type and a hook & loop type. The data are not guaranteed but measured values.

WIRING PROTECTION TUBES

Noise Protecting Tube

Slide Lock type

RoHS



Features

- Slide lock tube that uses aluminum foil with high shielding effects to control noise.
- The material is so flexible that it can fit any wiring shape and help produce neat appearance.
- The interlock section provides excellent air-tightness to prevent the inclusion of external dust.
- Available in 9 sizes from 15φ to 100φ, the tube fits any wiring variation for perfect coating.

Operating temperature

The tube can be interlocked easily using the dedicated slider (option).

Packing

- The tube can be pulled out from the slot of the external box.
- Not using any metallic parts, the bobbin and the external box can be readily discarded.

Color

Black

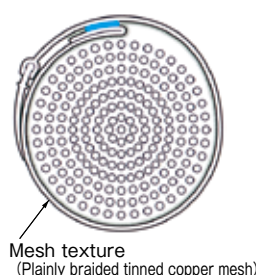
Operating temperature

−15°C~70°C

How to Use

- Wrap the tube around pieces in the way that the aluminum foil comes inside, and interlock the tube so that the braided wire contacts the aluminum foil.
- The braided wire can be used as a ground wire

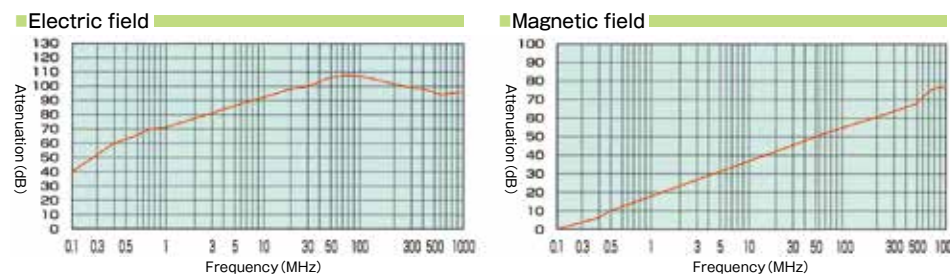
Section View



Part No.	Nominal Size	Length	Materials/Characteristics
TSLA-15	15φ	25m	Sheet part: Fire-resistant flexible vinyl chloride +Aluminum foil +1.25sq mesh texture (Plainly braided tinned copper mesh)
TSLA-20	20φ		
TSLA-25	25φ		
TSLA-30	30φ		
TSLA-35	35φ		
TSLA-40	40φ		Interlock part: Semi-rigid fire-resistant vinyl chloride
TSLA-50	50φ		
TSLA-70	70φ		
TSLA-100	100φ		

Sheet part V-O compliant suitability

Shielding Effects



※The above line graph are data of a noise protect button type and a hook & loop type.
The data are not guaranteed but measured values.



Dedicated slider (option)

Noise Protecting Tube for Flat Cables

RoHS



Features

- Perfect for shielding of flat cables and ribbon cables.
- The interior aluminum foil sheathes cables to ensure the shielding effects.
- The material is so flexible that it can fit any wiring shape and help produce neat appearance.

Packing

- The external case has a slot from which you can pull the tube out to use.
- Not using any metallic parts, the bobbin and the external case can be readily disposed of.

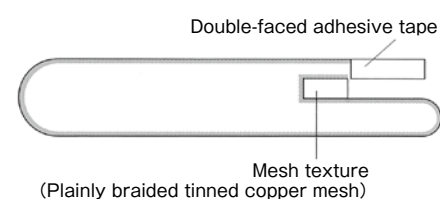
Color

●Black

Operating temperature

−20°C~50°C

Section View



Part No.	Applicable cable size	Product width	Length	Materials/Characteristics
	Conductors	Cable width		
TATF-10	10	12.6mm	5m	Sheet part: Fire-resistant flexible vinyl chloride +PET +1.25sq mesh texture (Plainly braided tinned copper mesh)
TATF-16	16	20.3mm		
TATF-20	20	25.4mm		
TATF-26	26	33.0mm		
TATF-34	34	43.2mm		
TATF-40	40	50.8mm		Interlock part: Double-faced adhesive tape Tape width: TATF-10, 16 5mm TATF-20~60 10mm
TATF-50	50	63.5mm		
TATF-60	60	76.2mm		

Sheet part VTM-0 compliant suitability

WIRING PROTECTION TUBES

High shielding effectiveness against noise "Aluminum foil:80μm"

UL94 VTM-0 compliant (sheet part)

RoHS

BS Tube

Button type



Features

- Snap fastener design permits the tube to be fit and detached easily without using a tool.

Part No.	Nominal Size	Length	Materials/Characteristics
TMBS80-15	15φ	25m	Sheet part: Fire-resistant flexible vinyl chloride +PET+Aluminum foil +1.25sq mesh texture (Plainly braided tinned copper mesh)
TMBS80-20	20φ		
TMBS80-25	25φ		
TMBS80-30	30φ		
TMBS80-40	40φ		
TMBS80-50	50φ		Interlock part: Snap buttons (Polyacetal Resins)
TMBS80-70	70φ		
TMBS80-100	100φ		

Color

Black

Operating temperature

−15°C~70°C

S Tube

Hook and Loop Fastener type



Features

- Hook and loop fastener design permits the tube to be fit and detached easily without using a tool.

Part No.	Nominal Size	Length	Materials/Characteristics
TMP80-20	20φ	25m	Sheet part: Fire-resistant flexible vinyl chloride +PET+Aluminum foil +1.25sq mesh texture (Plainly braided tinned copper mesh)
TMP80-25	25φ		
TMP80-30	30φ		
TMP80-40	40φ		
TMP80-50	50φ		
TMP80-70	70φ		Interlock part: Hook-and-loop fasteners type
TMP80-100	100φ		

Color

Black

Operating temperature

−15°C~70°C

Noise Protecting Tube

Slide Lock type

RoHS



Features

- The interlock section provides excellent air-tightness to prevent the inclusion of external dust.
- The tube can be interlocked easily using a dedicated slider (option).

Part No.	Nominal Size	Length	Materials/Characteristics
TSLA80-15	15φ	25m	Sheet part: Fire-resistant flexible vinyl chloride +Aluminum foil +1.25sq mesh texture (Plainly braided tinned copper mesh)
TSLA80-20	20φ		
TSLA80-25	25φ		
TSLA80-30	30φ		
TSLA80-35	35φ		
TSLA80-40	40φ		Interlock part: Semi-rigid fire-resistant vinyl chloride
TSLA80-50	50φ		
TSLA80-70	70φ		
TSLA80-100	100φ		

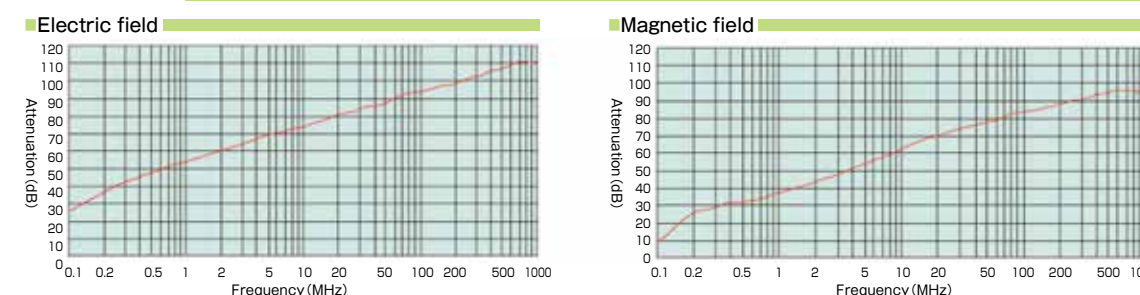
Color

Black

Operating temperature

−15°C~70°C

Shielding Effects

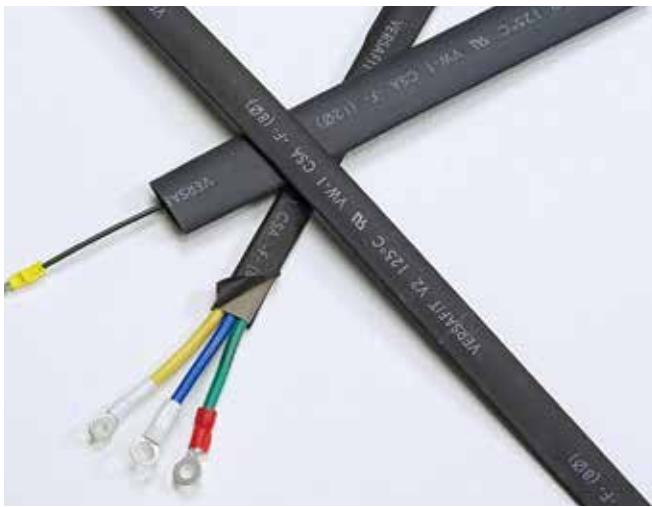


※The data are not guaranteed but measured value.

WIRING PROTECTION TUBES

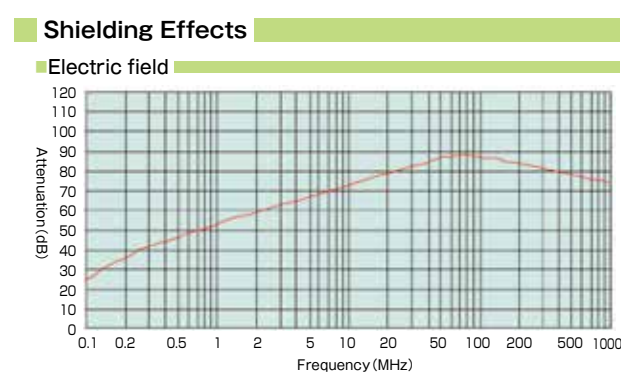
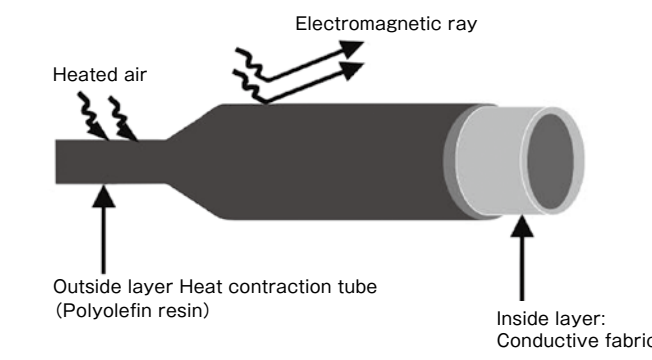
Heat-resistant protection, insulation protection and bonding·shielding effectiveness

Heat Shrink Shield Tube THSST RoHS



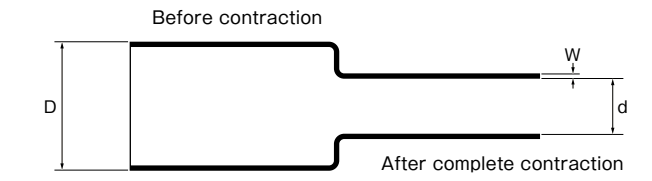
- Features**
 - Binding and shielding can be done at the same time.
- Shrinkage Temperature**
 - 90℃ and over
- Contractility ratio**
 - 2 : 1
- Lengthwise direction contraction percentage**
 - 5% (Maximum)
- Color**
 - Black
- Fire resistance**
 - UL224 VW-1
- Operating temperature**
 - 20℃~60℃

Specification



Before and After contraction

D: Tube bore diameter before contraction
d: Tube bore diameter after complete contraction
W: Tube thickness after complete contraction



Part No.	Bore diameter before contraction	Bore diameter after complete contraction	Thickness after complete contraction	Length(mm)	Quantity(pcs)
	minimum value (mm) D	Maximum value (mm) d	minimum value (mm) W		
THSST-6	6.6	3.0	0.56	1,000	10
THSST-8	8.6	4.0	0.56	1,000	10
THSST-12	12.7	6.0	0.56	1,000	10
THSST-18	19.0	9.0	0.76	1,000	10

WIRING PROTECTION TUBES

Wiring Flexible Tube

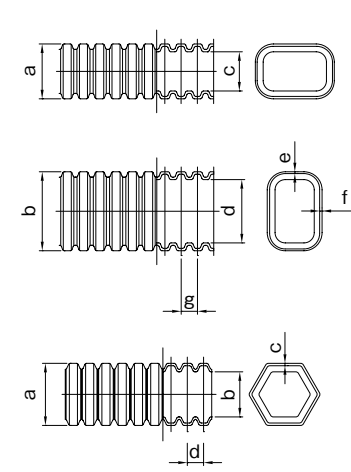
RoHS

● Halogen-free Eco materials used.



- Features**
 - Wires can be easily inserted / withdrawn from the slit on flat part even without using tools. (No slit type also available.)
 - Wires are stored inside the tube, improving the appearance of the wiring.
 - Color classification by circuit, etc. is also possible with multiple tubes with the eight color standard lineup.
 - Ideal for protection of various wiring routes such as steps, intersections and door crossing wiring, improving the appearance of wiring
 - Further improvement of work efficiency and appearance when combined with special fixtures.
 - Lineup of standard / flame retardant types
- **PATPEND**
- Operating temperature**
 - Material : LDPE -20℃~50℃
 - Material : PP -20℃~60℃

Dimensions



Rectangular type (mm)									
Material	Size	a	b	c	d	e	f	g	m/box
LDPE	1309	9.0	13.0	6.3	10.5	0.3	0.4	(2.7)	50
	3020	20.0	30.0	15.0	25.0	0.6	0.6	(5.4)	15
	4030	30.0	40.0	25.0	35.0	0.5	0.7	(5.4)	15
Material	Size	a	b	c	d	e	f	g	m/box
PP	1309	9.2	13.2	6.3	10.5	0.3	0.35	(2.7)	50
	3020	20.0	30.0	15.0	25.0	0.6	0.6	(5.4)	15
	4030	30.0	40.0	25.0	35.0	0.5	0.7	(5.4)	15

Hexagonal Type (mm)					
Material	a	b	c	d	m/box
LDPE	10.3	7.5	0.35	(2.7)	50
PP	10.5	7.7	0.35	(2.7)	50

※ () is the reference dimension

Product Lineup

Part No. Configuration

TFT4 ① shape PE ② Material 1309 ③ Size BK ④ Color — A ⑤ Select color

①Select shape	②Select material	③Select size	④Select Color	⑤Select with/without slit
Rectangle TFT4	LDPE PP (Flame resisting) PP (High frame resisting)	PE PP1 PP2	13mm×9mm 1309 30mm×20mm 3020 40mm×30mm 4030	Natural NA White WH Orange OR Black BK Yellow YE Blue BL Green GR Silver SL High brilliance silver SL2 ※ Natural=LDPE only ※ High brilliance silver= BTO product
				With Slit —A Without Slit —A
Hexagon TFT6	LDPE PP (Flame resisting) PP (High frame resisting)	PE PP1 PP2	10mm 10	

WIRING PROTECTION TUBES

Fixture for Wiring Flexible Tube

RoHS

●Halogen-free Eco materials used.

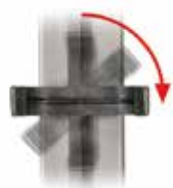


Features

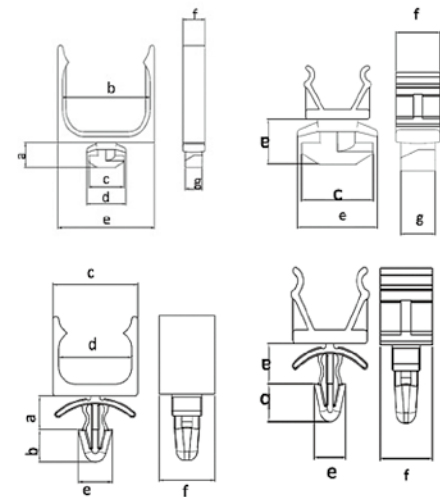
- Flexible tube can be attached easily.
- By using the fixture, it is possible to wire freely, such as straight lines and bends, and the appearance is also improved.
- Two types of fixing methods are available.
Aluminum frame type
Insert type

Aluminum frame type

Fixed by only turning 90 degrees!
No screwed needed!



Dimensions



①Aluminum frame type Material: PA66

Size	a	b	c	d	e	f	g	Packaging unit
Rectangle1309	9.1	13.1	16.0	17.8	15.1	10.0	7.7	100
Rectangle3020	9.1	30.0	16.0	17.8	34.0	10.0	7.7	25
Rectangle4030	9.2	40.0	16.0	17.8	44.0	10.0	7.7	25
Hexagon10	9.1	—	16.0	—	17.8	10.0	7.7	100

②Insertion type Material: PA66

Size	a	b	c	d	e	f	Packaging unit
Rectangle1309	5.8	5.5	15.1	13.1	6.0	10.0	100
Rectangle3020	5.8	5.5	34.0	30.0	6.0	10.0	25
Rectangle4030	5.8	5.5	44.0	40.0	6.0	10.0	25
Hexagon10	5.8	5.5	—	—	6.0	10.0	100

Product Lineup

Part No. Configuration

TFT4C

① shape

-S

②Type

1309

③Size

WT

④Color

①Select shape	②Select material	③Select size	④Select Color
Rectangle TFT4C	Insertion S Aluminum A	1309 1309 3020 3020 4030 4030	White WH Black BK silver SL
Hexagon TFT6C	Insertion S Aluminum A	10 10	White WH Black BK silver SL

※Insertion type applicable plate thickness is 2.3mm~3.2mm/mounting hole diameter "4.8 tolerance+0.2・-0"
※Aluminum type applicable flute width 6mm (general)

WIRING PROTECTION TUBES

Corrugate Tube

RoHS



Features

- The slit design permits wires to be trapped with ease.
- Easily cut with a knife etc.
- Lightweight, highly impact-resistant, and excellent in stability.

Color

Black

Material

Fire-resistant polypropylene

specification

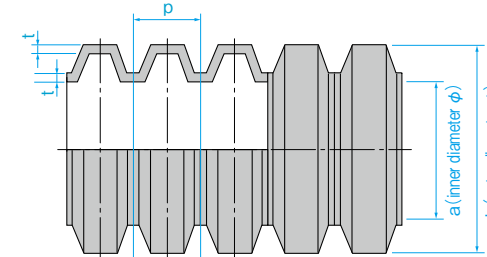
- Small box type
- Wrap roll type

※Available to choose from according to the required quantity to use.

Operating temperature

-20℃~60℃

Dimensions



Nominal Size	a	b	p	t
05	5.1	7.6	2.5	0.20
07	7.4	10.2	2.7	0.27
10	10.7	14.1	2.7	0.27
13	13.2	17.5	3.5	0.27
15	15.2	19.5	3.5	0.27
19	19.5	23.8	3.5	0.27
22	22.1	27.0	4.2	0.30
25	25.0	30.0	4.3	0.35
28	28.2	34.0	4.4	0.35

■Fire-resistant Black Corrugate Tube with a Slit

Small box type	m / box	Wrap roll type	m / roll
TCTN-05S	50	TCTN-05L	500
TCTN-07S	50	TCTN-07L	500
TCTN-10S	50	TCTN-10L	400
TCTN-13S	50	TCTN-13L	200
TCTN-15S	50	TCTN-15L	200
TCTN-19S	25	TCTN-19L	100
TCTN-22S	20	TCTN-22L	100
TCTN-25S	20	TCTN-25L	100
TCTN-28S	20	TCTN-28L	100



Through tube

RoHS

Features

- Excellent in elasticity, the tube stretches about 1.5 to 4 times if compressed.
- Available in 8 sizes from 3φ to 50φ, the tube fits any wiring variation for perfect coating.
- The material is so flexible that it can fit any wiring shape and help produce neat appearance.
- Excellent in abrasion resistance.
- Mesh structure prevents accumulation of moisture and heat inside the tube.

Purpose of Use

- Binding and protection of wiring for robots, FA equipment, etc.
- Binding and protection of wiring inside control panel, switchboard, and cabinet panel.
- Binding and protection of wiring around OA equipment and computer terminals.

Flame-retardant type

Part No.	Minimum diameter	expanded maximum diameter	Width	Length	Part No.
TPT-3	3φ	12φ	6mm	200m	TPT-3N
TPT-6	6φ	24φ	15mm	150m	TPT-6N
TPT-10	10φ	28φ	19mm	150m	TPT-10N
TPT-12	12φ	33φ	22mm	100m	TPT-12N
TPT-19	19φ	45φ	30mm	100m	TPT-19N
TPT-30	30φ	55φ	35mm	100m	TPT-30N
TPT-40	40φ	75φ	55mm	25m	TPT-40N
TPT-50	50φ	90φ	60mm	25m	TPT-50N

Color

Black

Material

Polyester

How to Use

- Fold the tip portion back to open the insertion hole.
- Insert electric wires, etc. into the tube from the open insertion hole.

Operating temperature

-30℃~120℃

WIRING PROTECTION TUBES

Spiral Tube

RoHS



Features

- Great flexibility and memory facilitate wiring works.

Order Form

- Standard type

TSP-□□

Order No.

- Weather-resistant type

TSP-□□B

Order No.

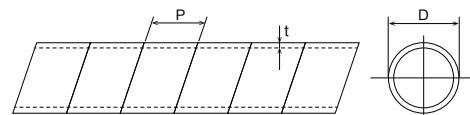
Color

Black

Material

Polyethylene

Dimensions



Physical Properties

Item	Testing method	Unit	Standard value	Item	Testing method	Unit	Standard value
MFR	JIS K 6922-2	g/10min	3.2	Nominal tensile strain at break	JIS K 6922-2	%	100
Density	JIS K 7112	g/cm ³	0.924	Durometer hardness	JIS K 7215	HDD	51
Tensile elastic modulus	JIS K 6922-2	MPa	180	Vicat softening point	JIS K 7206	°C	94
Tensile fracture stress	JIS K 6922-2	MPa	11.0	Brittleness temperature	JIS K 7216	°C	<-75

Part No.	O.D. (mm)	Thickness (mm)	Pitch (mm)	Lacing range diameter	1 case (1roll)
2.6	3.8	0.4	6	2.6-8	100m
4	5.2	0.5	10	4-12	
6	7.5	0.7	10	6-18	
8	9.8	0.8	13	8-25	50m
10	12	0.9	13	10-30	
12	14	1.1	16	12-35	
15	17	1.1	20	15-45	25m
20	23	1.3	23	20-60	
25	28	1.4	28	25-75	



Flat Tube

RoHS

Features

- After insert to the electric wire, it won't be slipped because it is holding electric wire.
- It is suitable to work by hand because of flat type.
- Materials are excellent at insulating because of enough thickness.
- You can use it with whether solderless terminal or bear conductor.
- You can use even large size for a variety of each electric wire such as parallel cord and VA.

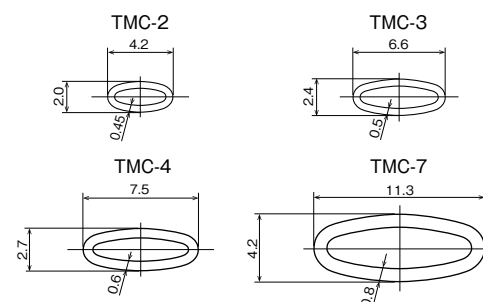
Color

- White (standard)
- Black
- Red
- Blue
- Green
- Yellow

Material

Flexible polyvinyl chloride

Dimensions



Rating

Insulation resistance	1,000MΩ or more
Withstand voltage	5,000V / min



Section view

Part No.	Inner diameter	Applica	1case (1roll)	Sales unit
TMC-2	φ2.3	0.4m以下	200m	1case
TMC-3	φ3.9	0.4~2m		
TMC-4	φ4.5	0.75~3.5m		
TMC-7	φ7.3	3.5~8m	100m	

CABLE TIE

Biding-Band

RoHS



Features

- It is easy to use and versatile binding band.
- You can use for electric, correspondence industry and wiring works because it is excellent at insulating and oil-resistance.

Order Form

- Standard type

TGB-□□

Order No.

- Weather-resistant type

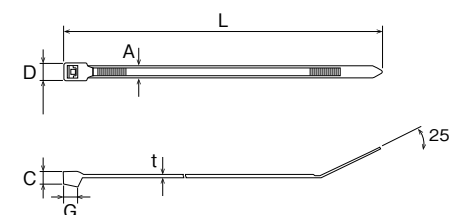
TGB-□□B

Order No.

Material

PA66 (UL94V-2)

Dimensions



Color

White: standard type
Black: Weather-resistant type

Order No. (□□)	Dimensions (mm)						Max. biding diameter (I.D.)	Packaging unit	Tensile strength reference value (N)
	L	A	C	D	t	G			
80	80	2.4	3.4	4.4	1.0	4.6	15φ	100pcs/pkg or 1000pcs/pkg	78
100	100	2.5	3.7	4.5	1.1	4.2	18φ		79
150	140	3.6	4.6	6.0	1.2	5.7	33φ	100pcs/pkg	178
200	190	4.8	5.6	7.8	1.3	7.0	43φ		217
250	250	4.8	5.8	8.0	1.3	6.9	60φ		217
300	300	4.8	5.8	8.2	1.3	6.9	76φ		217
370	368	7.6	6.9	12.3	1.6	8.5	102φ		533
530	528	9.0	8.3	14.4	1.8	10.8	140φ		778

Tie-Base

RoHS



Features

- 2 types of adhesibility available.
- Synthetic rubber adhesive type can be glued on tile, glass and polyolefein plastic.
- Acrylic adhesive type fits rough surface such as painted steel plates and ABS type plastic well, and also excels in heat-resistance, weather-resistance and chemical resistance.

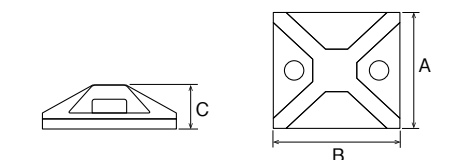
Color

Milky white

Material

- PA66
- Adhesives: Synthetic rubber type or Acrylic type

Dimensions



Order Form

- Synthetic rubber adhesive type

TBS-□□

Order No.

- Acrylic adhesive type

TBS-□□G

Order No.

Order No. (□□)	A (mm)	B (mm)	C (mm)	Maximum support bandwidth (mm)	Method of fixation	Packaging unit
20	19.2	19.2	4.8	4	Adhesion	100
30	25	30	6.2	6	Adhesion	100

Rubber Sponge

RoHS



Features

- TNR (Natural Rubber) ...Most popular black sponge that is light in weight and excellent in tensile strength, elasticity, and abrasion resistance.
- TCR (Chloroprene Rubber) ...Excellent in oil, heat, and weather resistance and ideal for outside use.
- TERP (Ethylene Propylene Rubber) ...Excellent especially in weather, ozone, and heat resistance.

Model numbering format

- (Material) - (Thickness) - (Width) (Spec/S: 1m type or L: 20m roll type)
Example: TNR-5-20-S ...Natural rubber 5mm thick, 20mm wide, and 1m long
TCR-3-30-L ...Chloroprene rubber 3mm thick, 30mm wide, and 20m roll
- ※There is no specification of length for neo latex, for which only the 30m roll type is available.

Performance

Item	Thickness	Width (mm)	specification
TNR	2mm	10, 20, 25	1m×100 20m roll with adhesive
TCR	3mm	15, 20, 25, 30	
TEPR	5mm	20, 25, 30, 40	

	(Natural Rubber)	(Chloroprene Rubber)	(Ethylene Propylene Rubber)
Abrasion resistance	◎	○	○
Weather resistance	△	○	◎
Ozone resistance	△	○	◎
Electrical insulation	○	○	◎
Oil/gasoline resistance	×	○	×

◎ Excellent ○ Good △ Acceptable × Unacceptable
※Environmental factors such as temperature, humidity and UV may cause degradation.

Operating temperature

−20℃~60℃ Normal humidity (50%)

- The rubber sponge satisfies your needs with its wide variation that takes full advantage of different types of natural and synthetic rubber.
- Applications include: door packing, gaskets, vibration-proof materials, water-/moisture-proof packing, buffering materials, heat-insulating seals, and sound-insulating materials.

Bush

RoHS

Features

Caulk unwanted holes

Color

- Gray
- Black

Material

PVC (oil resistance)

Order Form

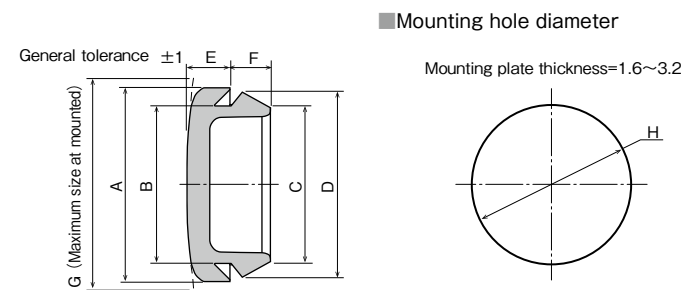
EMT-□□

- Color
- Gray: -
 - Black: B

- Mounting hole diameter
- 16φ-16
 - 22φ-22
 - 30φ-30



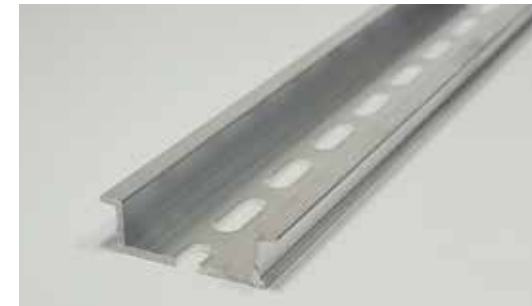
Dimensions



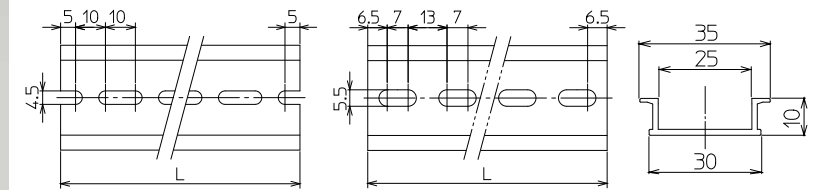
Order No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
EMT-16□	17.7φ	16.5φ	15.4φ	17.2φ	4	6.2	18φ	16.5φ
EMT-22□	27φ	21.5φ	21φ	25.5φ	6	5.5	30φ	22φ
EMT-30□	36φ	29.5φ	27φ	33φ	7	7	39φ	30φ

DAV Type [IEC/DIN]

RoHS



Dimensions



Material

Aluminum A6063 (anodized)

DAV4 (hole width:4.5)

Length (L)	Order format	Sales lot
1000mm	DAV4-1000	100
2000mm	DAV4-2000	50

DAV5 (hole width:5.5)

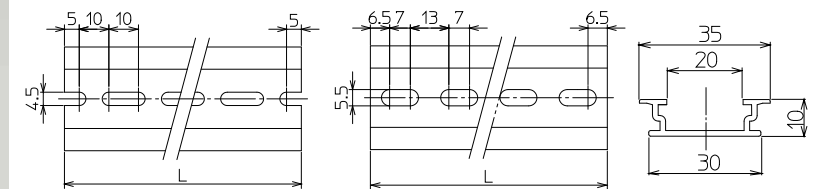
Length (L)	Order format	Sales lot
1000mm	DAV5-1000	100
2000mm	DAV5-2000	50

DAS Type [IEC/DIN]

RoHS



Dimensions



Material

Aluminum A6063 (anodized)

DAS4 (hole width:4.5)

Length (L)	Order format	Sales lot
1000mm	DAS4-1000	100
2000mm	DAS4-2000	50

DAS5 (hole width:5.5)

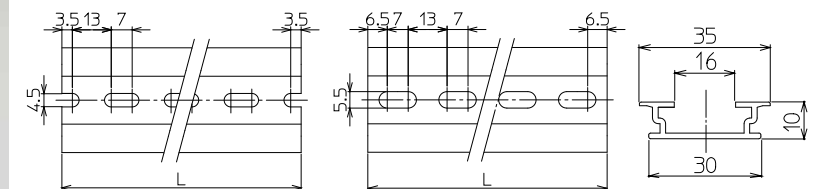
Length (L)	Order format	Sales lot
1000mm	DAS5-1000	100
2000mm	DAS5-2000	50

DIS Type [IEC/DIN]

RoHS



Dimensions



Material

Aluminum A6063 (anodized)

DIS4 (hole width:4.5)

Length (L)	Order format	Sales lot
1000mm	DIS4-1000	100

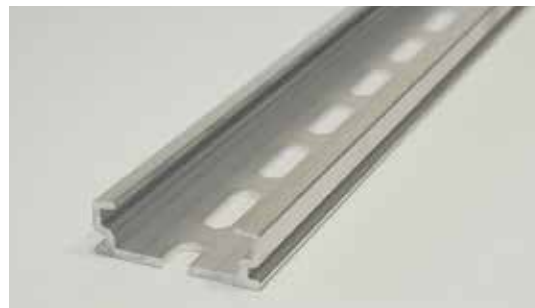
DIS5 (hole width:5.5)

Length (L)	Order format	Sales lot
1000mm	DIS5-1000	100

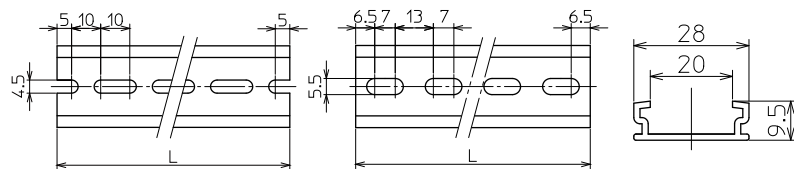
MOUNTING RAIL

AS Type

RoHS



Dimensions



Material

Aluminum A6063 (anodized)

AS4 (hole width:4.5)

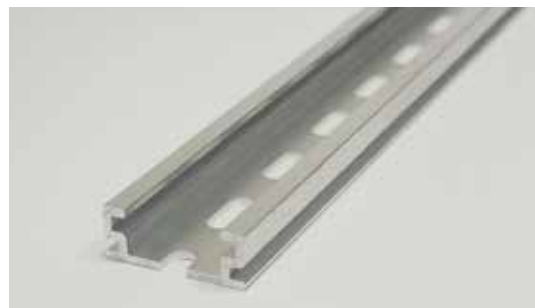
Length (L)	Order format	Sales lot
1000mm	AS4-1000	100
2000mm	AS4-2000	50

AS5 (hole width:5.5)

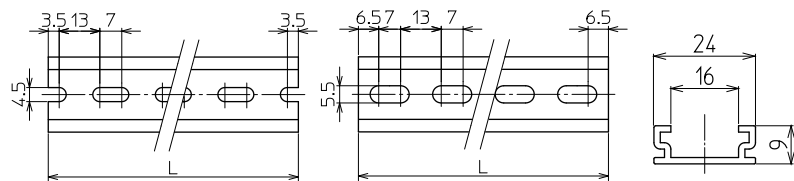
Length (L)	Order format	Sales lot
1000mm	AS5-1000	100
2000mm	AS5-2000	50

IAS Type

RoHS



Dimensions



Material

Aluminum A6063 (anodized)

IAS4 (hole width:4.5)

Length (L)	Order format	Sales lot
1000mm	IAS4-1000	100

IAS5 (hole width:5.5)

Length (L)	Order format	Sales lot
1000mm	IAS5-1000	100

MOUNTING RAIL

Hand-operated cutter for aluminum rail

Features

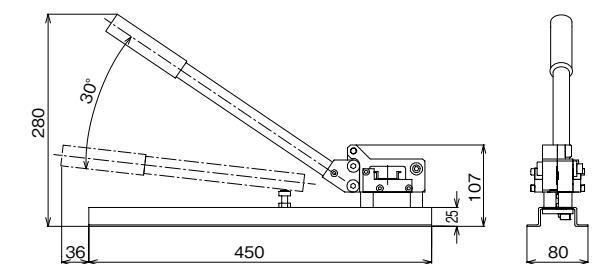
- Hand-operated: Everyone can cut the rail safely.
- New link type: It's high torque and not makes burr.
- Replaceable dice: It is available all kinds of aluminum rail.
- It is easy to check cutting point and possible to cut based on shape pf aluminum rail.

Weight

3.3kg



Dimensions



Body (with DIE 1pc)		Rail shape	Replacement DIE
Model No.	Applicable rail		
TA2-DAV	DAV · DM		TA-DAV
TA2-DAS	DAS		TA-DAS
TA2-AS	AS		TA-AS
TA2-DMS	DMS		TA-DMS
TA2-DIS	DIS		TA-DIS
TA2-IAS	IAS		TA-IAS

Electric cutter for aluminum rail

Features

- For cutting of aluminum and plastic materials mainly.
- It is the simple high-speed cutting machine that everyone can use without breaking materials.

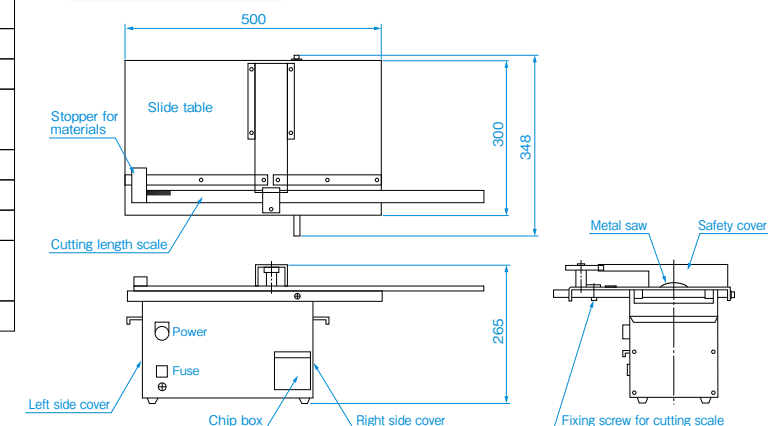
How to Use

Metalsaw is used in high-speed rotation as a cutting knife. You can cut and slide materials on the table forward.

Model No.

RCM-A ※Please choose frequency (50Hz or 60Hz) when you place an order.

Dimensions



specification

Source voltage	AC100V 6A (Fuse 10A)
Motor rating	0.2KW×4P 1800rpm (50/60Hz)
Belt	Polymax belt 5M345 (Mitsuboshi)
Metalsaw	75×25, 4×0.8
Cutable materials	Aluminum, plastic and etc.
Cutable section size	70×12mm
Cutting oil	Cutting plastic: No need Cutting aluminum material: Apply at times
Weight	18kg

Safety Instructions

Before using, be sure to read the instruction manual to ensure proper use of the product.

ACCESSORIES for MOUNTING RAIL

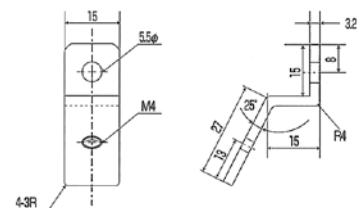
Rail Supporting Tool

RoHS

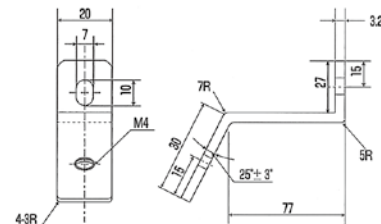


Section View

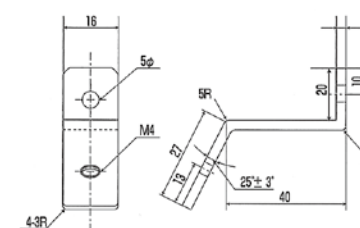
TK-1 100pcs/set



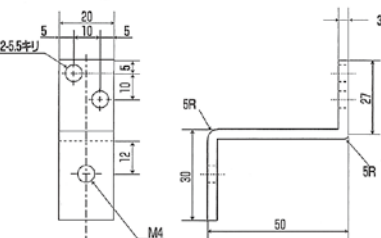
TK-3 50pcs/set



TK-2 100pcs/set



TK-4 100pcs/set



Features

Useful fittings to support the installation of DIN rails.

Material

Steel plate

Surface treatment

Trivalent chrome treatment

Operating temperature

−30℃~100℃

Rail Supporting Tool (movable)



RS-40M

RS-75M

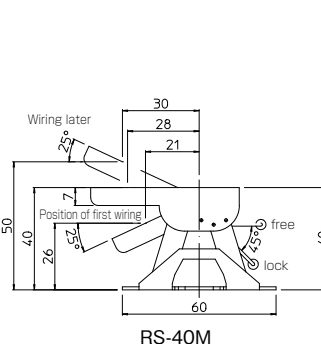
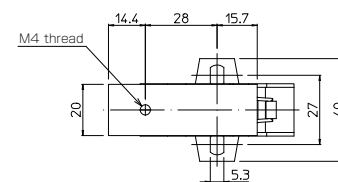
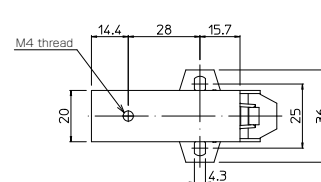
Features

Inclinable & lockable

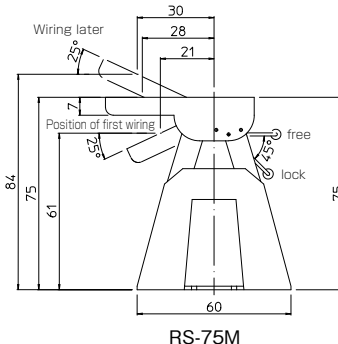
Inclination angle

- Unlocked (−40°, 0°, +40°)
- Locked (−25°, 0°, +25°)

Dimensions



RS-40M

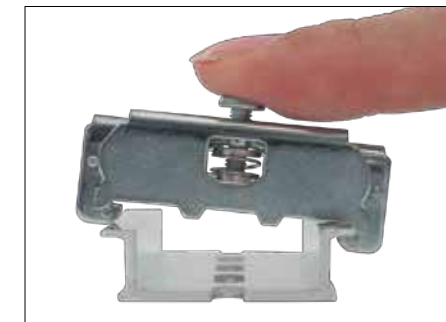


RS-75M

Part No.	Height	Sales lot
RS-40M	40mm	50
RS-75M	75mm	20

ACCESSORIES for MOUNTING RAIL

GTY series & Mounting rail



Features

- GTY series can be temporary mounted by just push the head of screw.
- Fixation is completed by tightening with the screw driver after GTY is temporary mounted.
- There are two types for your purposes.
- GTY series are the best to fix for a range of devices.

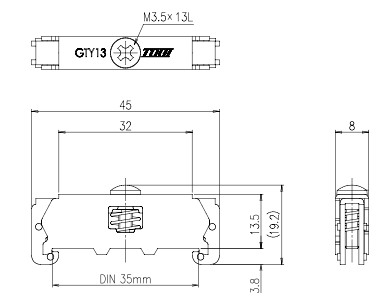
Material

SPCC

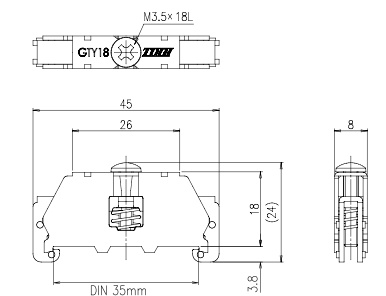
Dimensions

Part No.	Sales lot
GTY13	100
GTY18	50

GTY13

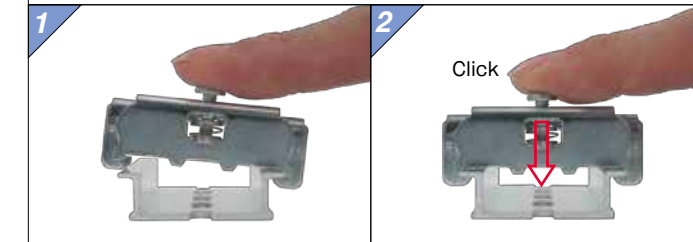


GTY18



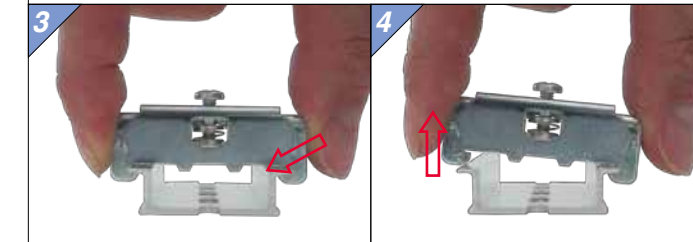
Attach and detach to DIN Rail (35mm)

Attachment



It can be temporary stop by simply pushing.

Detachment



All you need is to pick stopper up.

Rail-Endcap

For 35mm Mounting Rail

RoHS



Features

- Preventing injury by a cutting plane of a mountin rail

Material


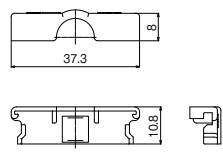
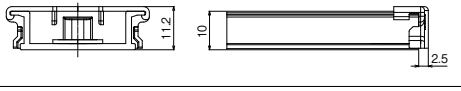
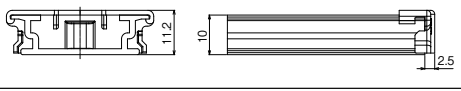

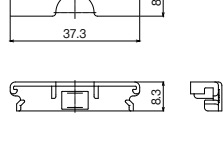
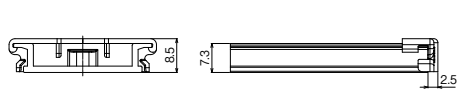
modified PPE (UL94V-0)

Color

Black

Sales lot

10pcs / pack

Part No.	Dimension (mm)	TOGI Mounting Rail		Dimension of Mounting Rail (mm)
		Height	Model No.	
DIN35-10CA  (Weight : 0.9g/1pc)		10mm	DAV	
			DAS	
DIN35-7.5CA  (Weight : 0.8g/1pc)		7.3mm	DMS	
		7.5mm	Can be used with TH 35-7.5 rail (IEC 60715 / DIN 46277-3)	

CAUTION for safety

- For your safety, please read this catalogue carefully before use of product.
- Products on this catalog may limit purpose and place of use, and also may require regular maintenance. Please confirm with your distributor or the maker directly.
- For your safety, all electrical wiring must be done by a qualified electrician.

BEFORE PURCHASE

- Product designs and specs may change without notice.
- Product color may slightly differ from this catalog.
- Please contact us for the product details and drawings.



Please contact our technical support team for product inquiries.

P.T. Nikkatsu Electric Works

Jl. Cimuncang No. 70 Bandung 40125 Telp. (022) 720 8088 (6 Lines) Fax: 720 6956 - 727 6000
Website: <https://www.pt-nikkatsu.com> e-mail: marketing@pt-nikkatsu.com

***TOGI* TOYOGIKEN CO.,LTD.**

<http://www.togi.co.jp> E-mail: info@togi.co.jp

Headquarters, Factory

4-8-7 Gongencho, Osachi, Okaya-shi, Nagano-ken, Japan 394-0081