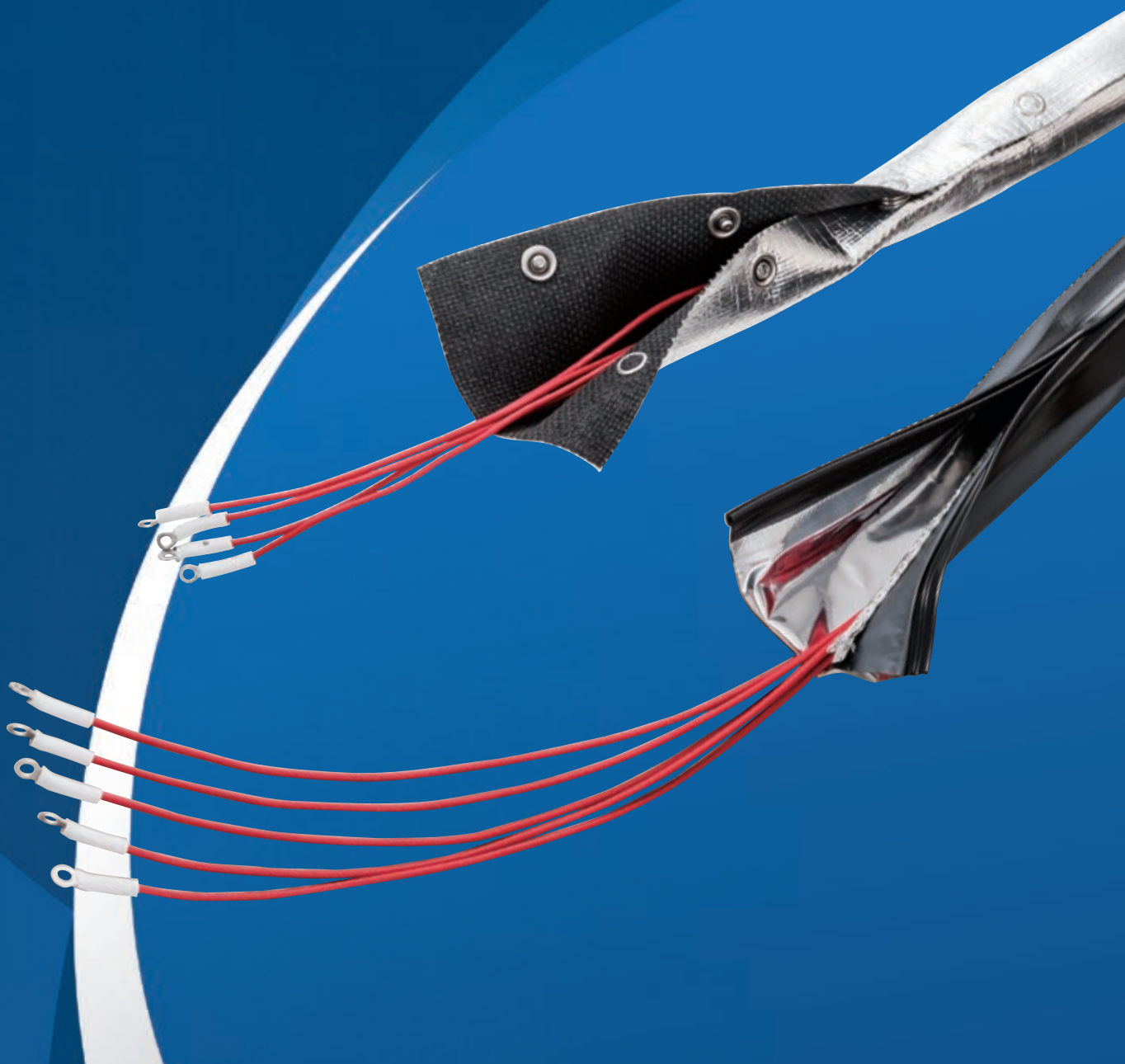
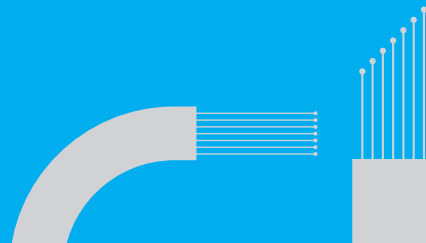


Tubing Products Catalog

CABLE SHIELDING
CABLE TUBING
CABLE PROTECTION
THERMAL MANAGEMENT
FACTORY MAINTENANCE



Tubing Products Catalog



Specifications Table - Shield type



*Zippertube® is a registered trademark of Zippertubing (Japan), Ltd..

Closure Type	Part No.*5	Color	Sheet			Shielding Material			Note
			Thickness*1 (mm)	RRSMCT*2	Equivalent Spec as UL94 VTM-0*3	Aluminum Foil*1 (mm)	Metallic Mesh	Conductive Fabric	
Zipper Type	SLBF	Dark Gray	0.25		●	0.01			
	SLBH	Dark Gray	0.28	●	●	0.02			
	SLBJ	Dark Gray	0.41	●	●	0.07			
	SLBFX	Dark Gray	0.25		●	0.01	Dual Layer		
	SLBFS	Dark Gray	0.25		●	0.01		●	
	SLBJX	Dark Gray	0.41	●	●	0.07	Dual Layer		
	SLBJX(4)	Dark Gray	0.41	●	●	0.07	Four Layer		
	SPHX(2)	Black	0.34	●	●		Dual Layer		UL224 VW-1
	SPHX(4)	Black	0.34	●	●		Four Layer		UL224 VW-1
	ZTZX(2)	Black	0.5				Dual Layer		Heat Resistant up to 105°C
	ZTZX(4)	Black	0.5				Four Layer		Heat Resistant up to 105°C
	SLBN(K)	Black	0.28		●			●	UL224 VW-1
SPHS(NK)	Black	0.28		●			●	UL224 VW-1	
Snap Type	OLBF	Dark Gray	0.25		●	0.01			
	OLBFX	Dark Gray	0.25		●	0.01	Dual Layer		
	OLBFS	Dark Gray	0.25		●	0.01		●	
Hook and Loop fastener Type	MLBF	Dark Gray	0.25		●	0.01			
	MLBH	Dark Gray	0.28	●*4	●	0.02			
	MLBFX	Dark Gray	0.25		●	0.01	Dual Layer		
	MLBFSX	Dark Gray	0.25		●	0.01	Dual Layer	●	
	MLBX	Black	0.34	●	●		Dual Layer		
	MLGX	Gray	0.35	●	●		Dual Layer		
	MLBS	Black	0.34	●	●			●	
Flat Type	RLBF 500	Dark Gray	0.25		●	0.01			
	FLBF 500	Dark Gray	0.25		●	0.01			
	DK-800	Black	-					●	
Sleeve Type	ZSK-HF	Silver	-	●					UL1441 VW-1
	ZSK-HFE	Silver	-	●					UL1441 VW-1
	ZSK-BF	Silver	-	●					UL1441 VW-1
	ZSK-BFE	Silver	-	●					UL1441 VW-1
Heat-shrink Type	SS Tube	Black	-					●	UL224 VW-1 (Tube Section Only)
Easy Lock Type	ELTM	Transparent	0.5					●	
	ELBM	Black	0.5					●	

*1 Typical value

*2 Complies with "Flame Resistance" in Railway Rolling Stock Material Combustion Test.

*3 Not certified

*4 "Flame Retardancy" in Railway Rolling Stock Material Combustion Test.

*5 A size indicator, represented by ***, is added after the product number.



Our own RoHS 10 substances compliant mark

Specifications Table - Bundling-Only Type



*Zippertube® is a registered trademark of Zippertubing (Japan), Ltd..

Closure Type	Part No.*4	Color	Sheet				Equivalent Spec as UL94 VTM-0*3	Note
			Thickness*1 (mm)	Transparency	Flexibility	RRSMCT*2		
Zipper Type	GPPJ (B)	Black	0.34			●	●	UL224 VW-1
	GPPJ (G)	Gray	0.35			●	●	
	SLT	Transparent	0.3	●				
	ZTZ-63B	Black	0.5					UL224 VW-1, Heat Resistant up to 105°C, Dielectric Strength: 600V
Snap Type	OLB	Black	0.34		●	●	●	
	OLG	Gray	0.35		●	●	●	
	OLT	Transparent	0.3	●	●			
	OPE	White	0.2					Chemical Resistant
	OTO	Gray	0.33		●			Spatter Resistant
	OTP-R	Gray	0.75					Spatter Resistant
	OTP-R(S)	Gray	0.75					Spatter Resistant
	OSAM	Silver	0.8					Heat Shielding and Heat Resistance
	OHRZ	Silver	0.8					Heat Shielding
	OISM25T	Silver	2.3					Heat Shielding & Thermal Insulation
OISM50T	Silver	4.4					Heat Shielding & Thermal Insulation	
Hook and Loop fastener Type	MLB	Black	0.34		●	●	●	
	MLG	Gray	0.35		●	●	●	
	MLO	Gray	0.5		●			Rodent Resistant
	MTK	Gray	-					Spatter Resistant
	MTKK	Silver / Black	-					Spatter Resistance & Abrasion Resistance
	MTKA	Black	-					Spatter Resistance & Flame Retardancy
	MTKG(G)	Gray	-					Spatter Resistance & Flame Retardancy
	MSAM	Silver	0.8					Heat Shielding and Heat Resistance
	MHRZ	Silver	0.8					Heat Shielding
	MISM25T	Silver	2.3					Heat Shielding & Thermal Insulation
MISM50T	Silver	4.4					Heat Shielding & Thermal Insulation	
Easy Lock Type	ELT	Transparent	-		●			Small Diameter
	ELB	Black	-		●			Small Diameter
	ELW	White	-		●			Small Diameter
	ELA	Blue	-		●			Small Diameter
	KLT	Transparent	-		●			
	KLB	Black	-		●			
	KLW(NP)	White	-		●			
	KLA	Blue	-		●			
	WELG	Gray	-					Equivalent to UL224 VW-1 (Not certified)
Sleeve Type	Z-Sleeve	Black	-		●	●		
	ZA-Sleeve	Black	-		●			Abrasion Resistance
	ZJ-Sleeve	Black	-		●	●		UL1441 VW-1

*1 Typical value

*2 Complies with "Flame Resistance" in Railway Rolling Stock Material Combustion Test.

*3 Not certified

*4 A size indicator, represented by ***, is added after the product number.



Our own RoHS 10 substances compliant mark

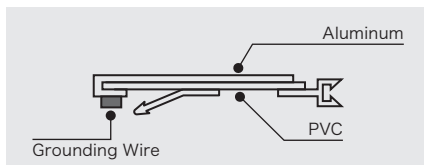
Zippertube® Closure Method

Protective Tubing / Shield Tube

ZipperTube® allows easy bundling and protection of cable wiring. Compared with conventional spiral tubing, it offers significantly improved workability and installation efficiency. We offer a variety of closure types tailored to different work environments, including a zipper type using dedicated tools, a hook type that requires no tools, and a hook-and-loop type.

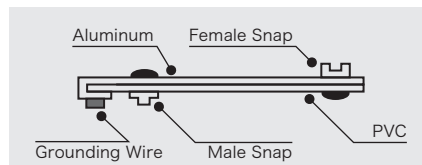
Zipper Type

- This product must be used with dedicated pliers.
- Long cable bundling and fastening can be done quickly.
- High fitting strength ensures effective protection against dust intrusion.



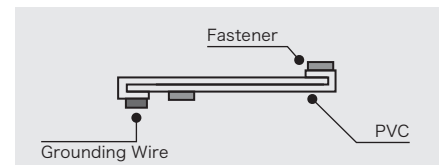
Snap Type

- Tool-free attachment and detachment is possible via a simple button mechanism.
- Branching of cables is supported.
- Excellent flexibility and bend performance.



Hook and Loop fastener Type

- Tool-free and reusable attachment/detachment is possible.
- Its excellent sealing prevents dust from entering.
- Excellent flexibility and bend performance.



Shield Tube / Types of Shielding Materials

What is a shield tube?

This product combines bundling tubes with electromagnetic shielding materials to provide both cable protection and noise suppression. Shielding materials are available in three types—aluminum foil, conductive fabric, and mesh—and can be selected or combined according to the installation environment and cable specifications.

Aluminum foil type

- Three types of aluminum foil thickness: 0.01mm, 0.02mm, and 0.07mm.
- High shielding performance



Conductive fabric type

- Flexibility and followability
- Excellent processability

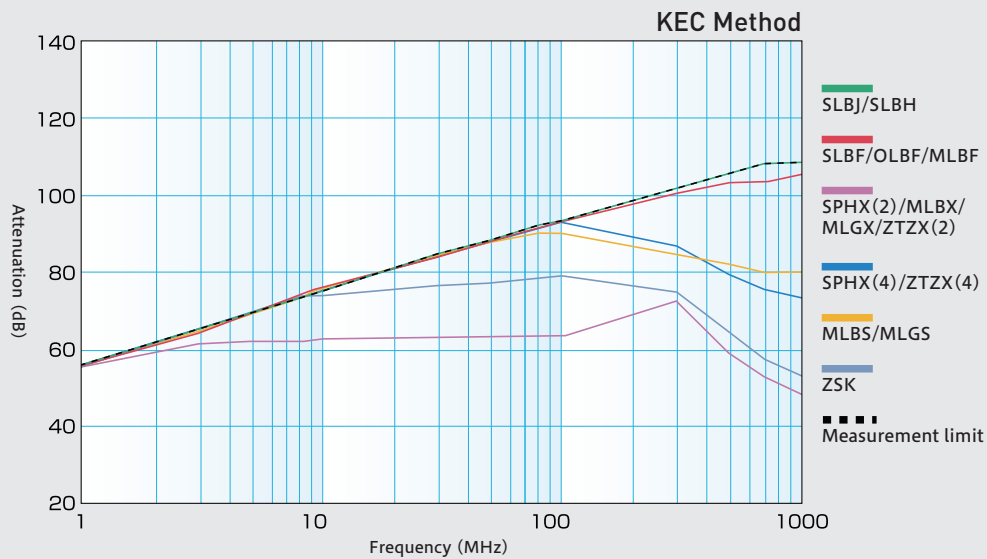


Metalic Mesh type

- Flexibility and followability.
- Metallic Mesh, 2 layers, 4 layers
- A composite type of metal mesh and conductive fabric is also available.



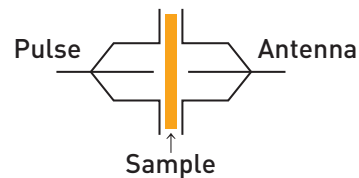
Example of Shielding Effectiveness (Electric Field)



*These are measured values provided for comparison, and are not guaranteed.

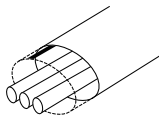
KEC Method

The KEC Method measures attenuation by placing a sample inside a test cell (as shown in the illustration), generating an electric pulse, transmitting it through the sample, and measuring the resulting signal from various directions.

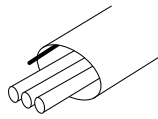


Granding Method for Shield Tubing Installation

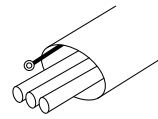
Method 1 Aluminum Foil Type



Cut extra length of sheet material to get the desired length of the braided grounding wire.

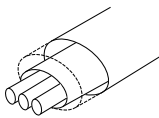


Expose the grounding wire.

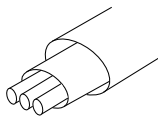


Put a terminal on the grounding wire and connect to ground.

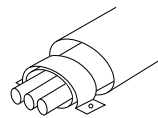
Method 2 Mesh Type and Conductive Cloth Type (Method 1 is acceptable as well.)



The Shielding material, mesh or conductive fabric, in side of the tube could be used for grounding. Cut extra length of sheet material to get the desired length of the shielding material.



Expose the shielding material, mesh or conductive fabric.



Apply an earth clamp over the shielding material and connect to ground.

How to use ZT Pliers



ZT Pliers

For products bearing this symbol, please use the ZT pliers.

1 Spread the channel



Use your thumbnail to spread the Zippertube channel apart.

2 Insert the ZT pliers



Just like in the picture, insert the knife edges of the ZT pliers into the channel. You may insert both edges at the same time, or one at a time.

Holding the pliers in your right hand, insert the ZT pliers into the channel starting at the top.

3 Slide the arrow in

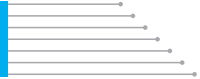


Slide the arrow side into the ZT pliers from the left side.

4 Pull the ZT pliers

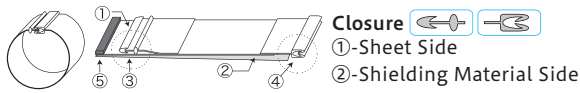


With your right index finger on the trigger, pull the ZT pliers straight down, while hold the connection closed with your left hand.



Zipper Type

Features our unique Zipper Closing mechanism, perfect for lengthwise closures, ensures super strong closure mating.



- ③-Zipper (Male)
- ④-Zipper (Female)
- ⑤ Braided Ground Wire

Zipper Type				
Part No.*1		SLBF ***-NB	SLBH ***-NB	SLBJ ***-NB
Color		Dark Gray		
Sheet	Material	Flexible PVC + PET Film	Polyester Cloth-infused Flexible PVC	
	Thickness*2	0.01mm Aluminum Foil	0.02mm Aluminum Foil	0.07mm Aluminum Foil
Additional Shielding Material		—	—	—
Closure	Material	Semirigid PVC		
Operating Temperature		-15°C~ 60°C		
Diameter (mm)		15, 20, 25, 30, 40, 50, 70, 100		
Standard Length		25m		
Note		Flexible Type	Standard Type	High Shielding Type


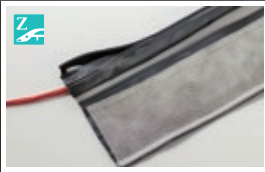

Zipper Type

Zipper Type					
Part No.*1		SLBFX ***-NB	SLBFS ***-NB	SLBJX ***-NB	SLBJX(4) ***-NB
Color		Dark Gray			
Sheet	Material	Flexible PVC + PET Film	Polyester Cloth-infused Flexible PVC		
	Thickness*2	0.01mm Aluminum Foil	0.07mm Aluminum Foil		
Additional Shielding Material		Metallic Mesh (Dual Layer)	Conductive Fabric	Metallic Mesh (Dual Layer)	Metallic Mesh (Four Layer)
Closure	Material	Semirigid PVC			
Operating Temperature		-15°C~ 60°C			
Diameter (mm)		15, 20, 25, 30, 40, 50, 70, 100			
Standard Length		25m			
Note		SLBF with metallic mesh	SLBF with conductive fabric	SLBJ with metallic mesh	High Shielding Type of SLBJX

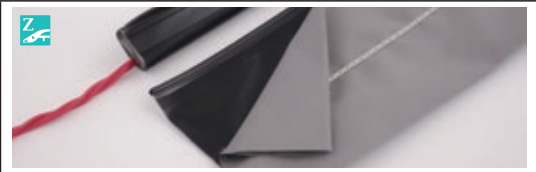
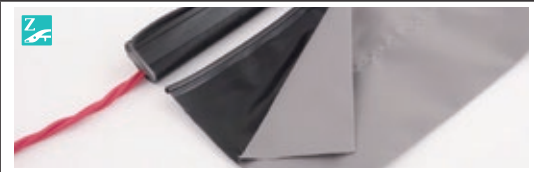
*1 A size indicator, represented by ***, is added after the product number. *2 Typical value

...For products bearing this symbol, please use the ZT pliers.


Zipper Type

Zipper Type					
Part No.* ¹		SPHX(2) ***-NB	SPHX(4) ***-NB	ZTZX(2) ***	ZTZX(4) ***
Color		Black			
Sheet	Material	Polyester cloth-infused flexible PVC		Flexible PVC	
	Thickness* ²	0.34mm		0.5mm	
Additional Shielding Material		Metallic Mesh (Dual Layer)	Metallic Mesh (Four Layer)	Metallic Mesh (Dual Layer)	Metallic Mesh (Four Layer)
Closure	Material	Semirigid PVC			
Operating Temperature		-15°C ~ 60°C		-15°C ~ 105°C	
Diameter (mm)		15, 20, 25, 30, 40, 50, 70, 100			
Standard Length		25m			
Note		Standard Metallic Mesh Type	High Shielding Type of SPHX(2)	Heat Resistant	High Shielding Type of ZTZX(2)

Zipper Type

Zipper Type			
Part No.* ¹		SLBN(K) ***-NB	SPHS(NK) ***-NB
Color		Black	
Sheet	Material	Polyester cloth-infused flexible PVC	
	Thickness* ²	0.28mm	
Additional Shielding Material		Conductive Fabric (Dual Layer)	
Closure	Material	Semirigid PVC	
Operating Temperature		-15°C ~ 60°C	
Diameter (mm)		15, 20, 25, 30, 40, 50, 70	
Standard Length		25m	50m
Note		With Woven-in ground Wire	UL224 VW-1

*¹ A size indicator, represented by ***, is added after the product number. *² Typical value

 ...For products bearing this symbol, please use the ZT pliers.

Snap Type

An ideal branch wire bundling, shielding solution
Good cost performance

Snap Type				
Part No.* ¹		OLBF ***	OLBFX ***	OLBFS ***
Color		Dark Gray		
Sheet	Material	Flexible PVC + PET Film		
	Thickness* ²	Aluminum Foil 0.25mm		
Additional Shielding Material		—	Metallic Mesh (Dual Layer)	Conductive Fabric
Closure	Material	Polyacetal		
Operating Temperature		-15°C~ 60°C		
Diameter (mm)		10, 15, 20, 25, 30, 40, 50, 70, 100		
Standard Length		50m	25m	
Note		Standard Type	OLBF with metallic mesh	OLBF with conductive mesh


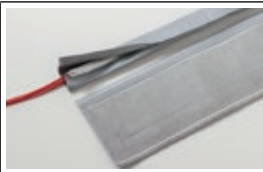

Hook and Loop fastener Type

Optimum solution for short wires bundling and frequent opening and closing

Hook and Loop fastener Type					
Part No.* ¹		MLBH ***	MLBF ***	MLBFX ***	MLBFSX ***
Color		Dark Gray			
Sheet	Material	Polyester cloth-infused flexible PVC	Flexible PVC + PET Film		
	Thickness* ²	0.02mm Aluminum Foil 0.28mm	0.01mm Aluminum Foil 0.25mm		
Additional Shielding Material		—	—	Metallic Mesh (Dual Layer)	Conductive Fabric Metallic Mesh (Dual Layer)
Closure	Material	Polyester			
Operating Temperature		-15°C~60°C			
Diameter (mm)		15, 20, 25, 30, 40, 50, 70, 100			
Standard Length		25m			
Note		Standard Type	Flexible Type	MLBF with metallic mesh	MLBFX with conductive fabric



*1 A size indicator, represented by ***, is added after the product number. *2 Typical value

Hook and Loop fastener Type

Hook and Loop fastener Type					
Part No.* ¹		MLBX ***	MLGX ***	MLBS ***	MLGS ***
Color		Black	Gray	Black	Gray
Sheet	Material	Polyester cloth-infused flexible PVC			
	Thickness* ²	0.34mm	0.35mm	0.34mm	0.35mm
Additional Shielding Material		Metallic Mesh (Dual Layer)	Metallic Mesh (Dual Layer)	Conductive Fabric	Conductive Fabric
Closure	Material	Polyester			
Operating Temperature		-15°C~ 60°C			
Diameter (mm)		15, 20, 25, 30, 40, 50, 70, 100			
Standard Length		25m			
Note		Metallic Mesh Type		Conductive Fabric Type	

Easy Lock Tube®

*Easy Lock Tube® is a registered trademark of Zippertubing(Japan), Ltd

Easy Lock Type			
Part No.* ¹		ELTM ***	ELBM ***
Color		Transparent	Black
Sheet	Material	Semirigid PVC	
Additional Shielding Material		Conductive Fabric	
Closure	Material	Semirigid PVC	
Operating Temperature		-15°C~60°C	
Diameter (mm)		10, 13	
Standard Length		25m	
Note		—	—

*1 A size indicator, represented by ***, is added after the product number. *2 Typical value

Flat Cable Cover



Flat Type				
Part No.*1		RLBF 5**	FLBF 5**	DK-8**
Color		Dark Gray		Black
Sheet	Material	Flexible PVC + PET Film		Polyurethane
	Thickness*2	0.01mm Aluminum Foil		Conductive Fabric
		0.25mm		—
Closure	Material	Semirigid PVC	Adhesive Tape	
Standard Length		50m		25m
Note		Zipper Type	Adhesive Tape Type	PVC Free

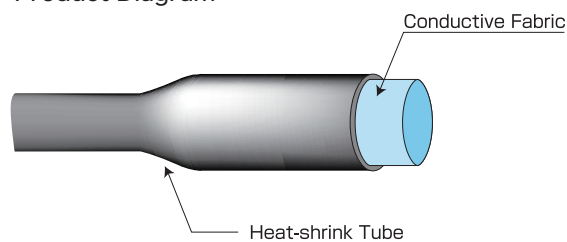
Applicable Flat Cable		Part No.		
No. of Lines	Cable Width (mm)			
10	12.8	—	FLBF 510	DK-810
16	20.3	—	FLBF 516	DK-816
20	25.4	—	FLBF 520	DK-820
26	33.0	RLBF 526	FLBF 526	DK-826
34	43.2	RLBF 534	FLBF 534	DK-834
40	50.8	RLBF 540	FLBF 540	DK-840
50	63.5	RLBF 550	FLBF 550	DK-850
60	76.2	RLBF 560	FLBF 560	DK-860

Heat-shrink Shield Tube



Heat-shrink Type		
Product Name		Heat-shrink Shield Tube
Color		Black
Heat-shrink Tube	Material	Electron beam crosslinked flexible FR polyolefin
	Shrinkage Temp.	60°C
	Shrinkage ratio	>50%
	Note	UL224 VW-1*3
Additional Shielding Material		Conductive Fabric
Standard Length		1m
Note		PVC Free

Product Diagram



Part No.	Inside Diameter*3	Thickness*4
SS-6	6.4	0.25
SS-8	8.4	
SS-12	12.4	
SS-18	18.7	0.35


*Without conductive fabric

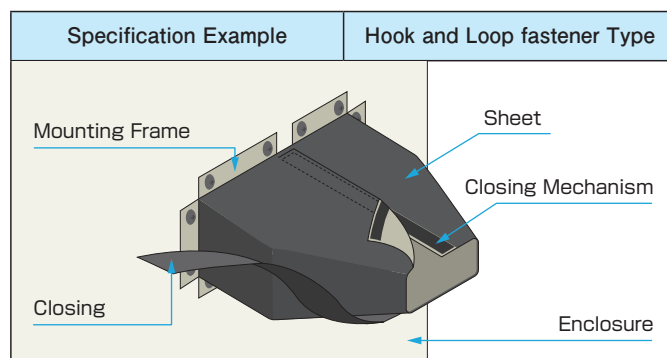
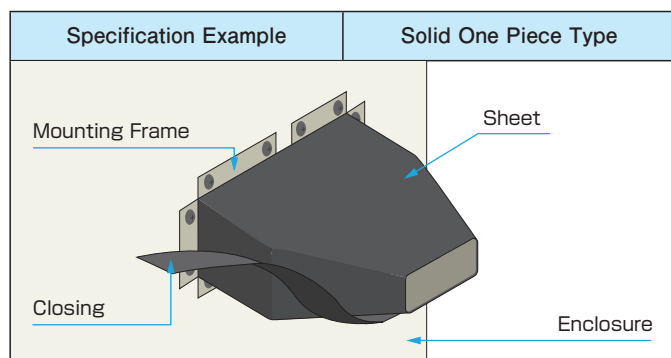
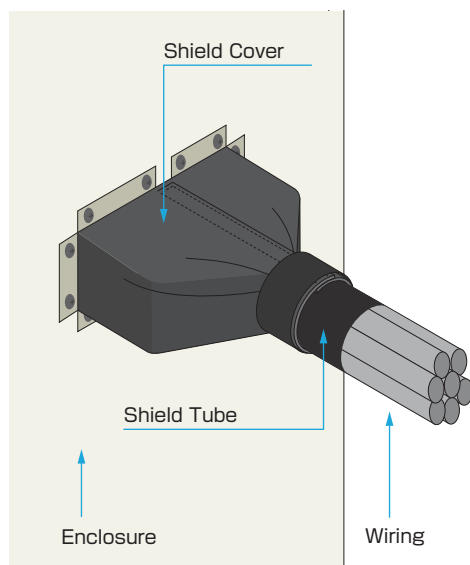
*1 A size indicator, represented by ***, is added after the product number. *2 Typical value

*3 Without conductive fabric *4 Before heat shrinkage

Shield Cover






Cover Type	
Product Name	Shield Cover
Color	Black
Sheet	Flexible PVC + Polyester Cloth (Cu Ni plated)
Specifications	Solid One Piece Type (Without split)
	Hook and Loop fastener Type (With split)
Closing	Hook and Loop fastener Type
Note	Aluminum foil type can be used as other sheet. (Color : Dark Gray)

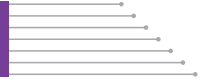


Shield Sleeve



Exceptional degree of elasticity and flexibility
Woven-in ground wire type (for ZSK-HFE and ZSK-BFE)
*The ground wire is seven-stranded wire and each diameter is 0.26mm.

Sleeve Type				
Part No.*	ZSK-***HF	ZSK-***HFE	ZSK-***BF	ZSK-***BFE
Color	Silver			
Material	Core	Aramid Fiber		
	Surface	Tin-plated Copper Foil		
Operating Temperature	-15°C~120°C			
Standard Length	100m			
Note	UL1441 VW-1	UL1441 VW-1 With woven-in ground wire	UL1441 VW-1	UL1441 VW-1 With woven-in ground wire
Applicable diameter (mm)	Part No.			
3~7	ZSK-03HF	ZSK-03HFE	—	—
6~15	ZSK-06HF	ZSK-06HFE	—	—
8~18	ZSK-12HF	ZSK-12HFE	—	—
11~20	ZSK-19HF	ZSK-19HFE	—	—
15~40	—	—	ZSK-25BF	ZSK-25BFE
17~46	—	—	ZSK-30BF	ZSK-30BFE
20~54	—	—	ZSK-40BF	ZSK-40BFE



Zipper Type

Zipper Type						
Part No.*1		GPPJ(B)***-NB	GPPJ(G)***-NB	SLT***	ZTZ-63B***	
Color		Black	Gray	Transparent	Black	
Sheet	Material	Polyester cloth-infused flexible PVC		Flexible PVC		
	Thickness*2	0.34mm	0.35mm	0.3mm	0.5mm	
Closure	Material	Semirigid PVC				
Operating Temperature		-15°C~60°C			-15°C~105°C	
Diameter (mm)		15, 20, 25, 30, 40, 50, 70, 100				
Standard Length		φ 15~50 : 50m φ 70, φ 100 : 25m		50m		
Note		UL224 VW-1		UL224 VW-1 Heat Resistant up to 105°C, Dielectric Strength: 600V		

Snap Type


Snap Type					
Part No.*1		OLB***	OLG***	OLT***	OPE***
Color		Black	Gray	Transparent	White
Sheet	Material	Polyester cloth-infused flexible PVC		Flexible PVC	PTFE*3
	Thickness*2	0.34mm	0.35mm	0.3mm	0.2mm
Closure	Material	Polyacetal			Nylon
Operating Temperature		-15°C~60°C			-15°C~260°C (Sheet)
Diameter (mm)		10, 15, 20, 25, 30, 40, 50, 70, 100			
Standard Length		(OLT 100 : Available on reels only) Winding on reels: 50m, Folded in the box*4: 25m x 2			Approx. 30m
Note					Chemical Resistance (Sheet)

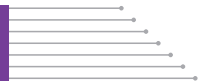
Snap Type

Snap Type				
Part No.*1		OTO***	OTP-R***	OTP-R(S)***
Color		Gray		
Sheet	Material	Fiberglass Fabric /Silicone	Aramid fiber blend / One-sided silicone facing	
	Thickness*2	0.33mm	0.75mm	
Closure	Material	Nylon		Stainless Steel
Operating Temperature		-20°C~150°C	-25°C~150°C	
Diameter (mm)		10, 15, 20, 25, 30, 40, 50, 70, 100		20, 25, 30, 40, 50, 70, 100
Standard Length		Approx. 30m	10m	
Note		Spater Resistance		

*1 A size indicator, represented by ***, is added after the product number. *2 Typical value

*3 Polytetrafluoroethylene *4 Folded in the box (Example Item Number: OLB 030Z)

 ...For products bearing this symbol, please use the ZT pliers.



Snap Type

Snap Type					
Part No.*1		OSAM ***	OHRZ ***	OISM25T ***	OISM50T ***
Color		Silver			
Sheet	Material	Aluminum Foil Fiberglass Cloth	Double-sided aluminized PET Fiberglass Cloth	Aluminum Foil Fiberglass Cloth Felt	
	Coating	Silicone	Urethane	-	-
	Thickness*2	0.8mm	0.8mm	2.3mm	4.4mm
Closure	Material	Stainless			
Operating Temperature		240°C	180°C	200°C	
Diameter (mm)		15, 20, 25, 30, 40, 50, 70, 100			
Standard Length		25m		15m	
Note		Heat Reflection, Heat Resistance	Heat Reflection	Heat Reflection, Insulation	Heat Reflection, Insulation

Hook and Loop fastener Type

Hook and Loop fastener Type				
Part No.*1		MLB ***	MLG ***	MLO ***
Color		Black	Gray	
Sheet	Material	Polyester cloth-infused flexible PVC		
	Thickness*2	0.34mm	0.35mm	0.5mm
Closure	Material	Polyester		
Operating Temperature		-15°C~60°C		
Diameter (mm)		15, 20, 25, 30, 40, 50, 70, 100		
Standard Length		φ 15~50:50m	φ 70、φ 100:25m	25m
Note				Rodent Resistance

Hook and Loop fastener Type

Hook and Loop fastener Type					
Part No.*1		MTK ***	MTKK ***	MTKA ***	MTKG(G) ***
Color		Gray	Silver / Black	Black	Gray
Sheet	Material	Aramid Fiber / Special Coating		Aramid Fiber / FR Coating	
Closure	Material	Polyester			
Operating Temperature (Sheet)		-15°C~150°C			
Diameter (mm)		15, 20, 25, 30, 40, 50, 70, 100			
Standard Length		50m乱	25m	50m	
Note		Spater Resistance	Spater Resistance, Abrasion Resistance	Spater Resistance, Flame Retardance	


*1 A size indicator, represented by ***, is added after the product number. *2 Typical value

Hook and Loop fastener Type

Hook and Loop fastener Type					
Part No.*1		MSAM ***	MHRZ ***	MISM25T ***	MISM50T ***
Color		Silver			
Sheet	Material	Aluminum Foil Fiberglass Cloth	Double-sided aluminized PET Fiberglass Cloth	Aluminum Foil Fiberglass Cloth Felt	
	Coating	Silicone	Urethane	-	-
	Thickness*2	0.8mm	0.8mm	2.3mm	4.4mm
Closure	Material	Polyester			
Operating Temperature (Sheet)		240°C	180°C	200°C	
Diameter (mm)		15, 20, 25, 30, 40, 50, 70, 100			
Standard Length		25m		15m	
Note		Heat Reflection, Heat Resistance	Heat Reflection	Heat Reflection, Insulation	Heat Reflection, Insulation

Easy Lock Tube®

*Easy Lock Tube® is a registered trademark of Zippertubing(Japan), Ltd

Easy Lock Type					
Part No.*1		ELT ***	ELB ***	ELW ***	ELA ***
Color		Transparent	Black	White	Blue
Sheet	Material	Semirigid PVC			
Closure	Material	Semirigid PVC			
Operating Temperature		-15°C~60°C			
Diameter (mm)		10, 13			
Standard Length		25m			
Note		Equivalent Spec as UL224 VW-1 (Not certified)			

Easy Lock Tube®

Easy Lock Type					
Part No.*1		KLT ***	KLB ***	KLW(NP) ***	KLA ***
Color		Transparent	Black	White	Blue
Sheet	Material	Semirigid PVC			
Closure	Material	Semirigid PVC			
Operating Temperature		-15°C~60°C			
Diameter (mm)		20, 30			
Standard Length		15m			
Note		Equivalent Spec as UL224 VW-1 (Not certified)			

*1 A size indicator, represented by ***, is added after the product number. *2 Typical value

AL-Easy® Cable Protection and Bundling Tube for Aluminum Frames

*AL-Easy® is a registered trademark of Zippertubing (Japan), Ltd

AL-Easy® is a wiring-protection tube designed for easy installation on aluminum frame structures commonly used in production equipment, inspection units, and clean environments.

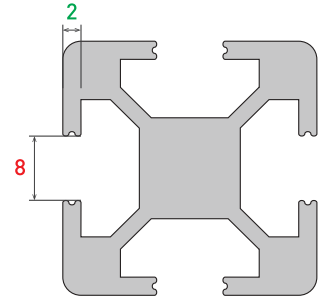
By simply pressing the tube into the frame groove, multiple cables can be neatly routed and protected.

AL-Easy® not only improves appearance but also reduces installation time and minimizes rework.


Example: WELG(8-2)025

Nominal width 8
 Nominal thickness 2
 Inner Diameter: 25 mm 025

*Compatible with aluminum frames where the groove width and plate thickness match the diagram.



AL-Easy® Size lineup

AL-Easy		Nominal width	Nominal thickness	Tube inner diameter (mm)	Part No.
Color	Gray	6mm	2mm	13	WELG(6-2)013
Material	Semi-rigid PVC			20	WELG(6-2)020
Operating Temperature	-15°C to +60°C			25	WELG(6-2)025
Standard Length	15m	8mm		15	WELG(8-2)015
Flame Retardance	Equivalent to UL-224 VW-1 (non-certified)			20	WELG(8-2)020
RoHS Compliance	Complies with RoHS (10 restricted substances)			25	WELG(8-2)025
		10mm	6mm	15	WELG(8-4)015
				25	WELG(8-4)025
				15	WELG(10-6)015
				20	WELG(10-6)020
				30	WELG(10-6)030

*Other tube colors are available upon request (made to order).

Introducing Dedicated Accessories

More details in the video



Easy Slider

A convenient accessory that lets you slide the tube smoothly into narrow or tight frame areas.

Features:

- Enables smooth insertion
- Great for tight or obstructed areas
- Reduces installation effort
- Recommended for detailed routing tasks

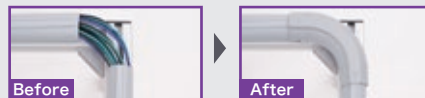


Easy Cap

A cap designed for clean corner finishing. Perfect for covering exposed tube ends at frame corners.

Clean, professional corner finishing with Easy Cap.

Available Sizes: ϕ 20 and ϕ 25



Caution: Please attach the Easy Cap that matches the diameter of the tube in use. Improper fitting may cause it to come off.

Easy Slider / Easy Cap Product Codes

Product Name	Easy Slider	Easy Cap – 20mm Diameters	Easy Cap – 25mm Diameters
Part No.	WEL SLIDER	WELG CAP LA020 R40	WELG CAP LA025 R50

Features

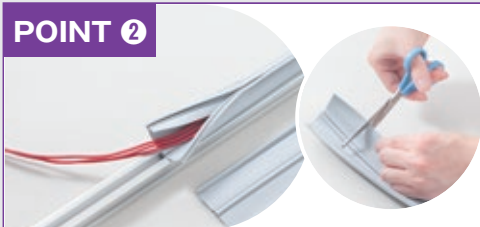
POINT ①



Easy Bundling

Cables can be routed and organized simply by pressing them into the dedicated groove—no tools required.

POINT ②



Simple Cable Protection

Because the tube matches the color of aluminum frames, it blends in naturally and keeps the overall appearance clean. Perfect for applications requiring neat wiring layouts.

POINT ③



Easy Removal

AL-Easy® can be removed by hand without tools. Ideal for maintenance, cable replacement, or layout changes. The tube's shape allows cables to be easily added or removed at any time.

Installation Method

STEP ①



Align the Tube with the Frame Groove

Check the shape of the aluminum frame groove and the engaging portion of the tube. Align the protruding part of the tube with the groove.



STEP ②



Press Down from Above

Press firmly from the top until the tube snaps securely into place.



STEP ③



Installation Complete

Once the tube sits flush with no gaps, installation is finished.

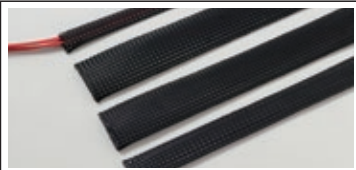

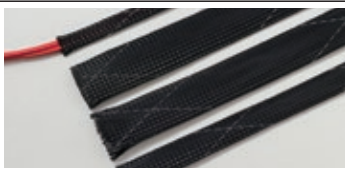
As shown in the photo, make sure it is fully seated.



Sleeve



Internal diameter can be stretched.
Made from wear-resistance, lightweight, elastic material.

Sleeve Type			
Part No.*	Z-**	Z-****A	ZJ-***FR
Color	Black		
Material	Polyester	Polyester and Nylon 6	FR Polyester
Operating Temperature	-70°C~125°C		
Note	Standard Type	Abrasion-Resistant Type	Flame retardant grade UL1441 VW-1

Z Sleeve			ZA Sleeve			ZJ Sleeve		
Applicable diameter (mm)	Part No.	Standard Length	Applicable diameter (mm)	Part No.	Standard Length	MAX Diameter (mm)	Part No.	Standard Length
2~9	Z-03	200m	7~10	Z-0909A	100m	8	ZJ-003FR	200m
6~22	Z-06	150m	8~11	Z-1209A		18	ZJ-006FR	150m
8~26	Z-12		10~15	Z-1410A		22	ZJ-012FR	
11~34	Z-19	100m	16~20	Z-1608A		31	ZJ-019FR	100m
18~53	Z-30		20~30	Z-2108A		47	ZJ-030FR	
21~56	Z-40		35~45	Z-2808A		50	ZJ-040FR	
—	—	—	—	—	—	85	ZJ-050FR	50m

List of Example Part No.

Closure Type	Part No.	Part No. *Example Diameter 30mm	Note
Zipper Type	SLBF	SLBF 030-NB	With Seam
	SLBH	SLBH 030-NB	With Seam
	SLBJ	SLBJ 030-NB	With Seam
	SLBFX	SLBFX 030-NB	With Seam
	SLBFS	SLBFS 030-NB	With Seam
	SLBJX	SLBJX 030-NB	With Seam
	SLBJX(4)	SLBJX(4) 030-NB	With Seam
	SPHX(2)	SPHX(2) 030-NB	With Seam
	SPHX(4)	SPHX(4) 030-NB	With Seam
	ZTZX(2)	ZTZX(2) 30	With Seam
	ZTZX(4)	ZTZX(4) 30	With Seam
	SLBN(K)	SLBN(K) 030-NB	With Seam
	SPHS(NK)	SPHS(NK) 030-NB	With Seam
Snap Type	OLBF	OLBF 030	With Seam
	OLBFX	OLBFX 030	With Seam
	OLBFS	OLBFS 030	With Seam
Hook and Loop fastener Type	MLBF	MLBF 030	With Seam
	MLBH	MLBH 030	With Seam
	MLBFX	MLBFX 030	With Seam
	MLBFSX	MLBFSX 030	With Seam
	MLBX	MLBX 030	With Seam
	MLGX	MLGX 030	With Seam
	MLBS	MLBS 030	With Seam
	MLGS	MLGS 030	With Seam
Flat Type	RLBF 500	See page 10	With Seam
	FLBF 500	See page 10	With Seam and Split
	DK-800	See page 10	With Split
Sleeve Type	ZSK-HF	See page 11	With Split
	ZSK-HFE	See page 11	With Split
	ZSK-BF	See page 11	With Split
	ZSK-BFE	See page 11	With Split
Heat-shrink Type	SS Tube	See page 10	
Easy Lock Type	ELTM	ELTM 010	Diameter 10mm
	ELBM	ELBM 010	Diameter 10mm

Closure Type	Part No.	Part No. *Example Diameter 30mm	Note	
Zipper Type	GPPJ(B)	GPPJ(B) 030-NB	With Seam	
	GPPJ(G)	GPPJ(G) 030-NB	With Seam	
	SLT	SLT 030	With Seam	
	ZTZ-63B	ZTZ-63B 30	With Seam	
Snap Type	OLB	OLB 030	With Seam	
	OLG	OLG 030	With Seam	
	OLT	OLT 030	With Seam	
	OPE	OPE 30	With Split	
	OTO	OTO 30	With Split	
	OTP-R	OTP-R 30		
	OTP-R(S)	OTP-R(S) 30		
	OSAM	OSAM 030	With Split	
	OHRZ	OHRZ 030	With Split	
	OISM25T	OISM25T 030	With Split	
	OISM50T	OISM50T 030	With Split	
	Hook and Loop fastener Type	MLB	MLB 030	With Seam and Split
		MLG	MLG 030	With Seam and Split
MLO		MLO 030	With Split	
MTK		MTK 30		
MTKK		MTKK 030	With Split	
MTKA		MTKA 030	With Split	
MTKG(G)		MTKG(G) 030	With Split	
MSAM		MSAM 030	With Split	
MHRZ		MHRZ 030	With Split	
MISM25T		MISM25T 030	With Split	
MISM50T		MISM50T 030	With Split	
Easy Lock Type		ELT	ELT 010	Diameter 10mm
		ELB	ELB 010	Diameter 10mm
	ELW	ELW 010	Diameter 10mm	
	ELA	ELA 010	Diameter 10mm	
	KLT	KLT 030		
	KLB	KLB 030		
	KLW(NP)	KLW(NP) 030		
	KLA	KLA 030		
	WELG	See page 15		
Sleeve Type	Z	See page 17	With Split	
	ZA	See page 17	With Split	
	ZJ-FR	See page 17	With Split	

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ISO9001 & ISO14001 Certification Acquired

ZIPPER TUBING(JAPAN) Ltd. is a company certified under the international standard ISO9001 for quality management systems and ISO14001 for environmental management systems.

■Certified Standards	ISO9001:2015+Amd 1:2024 ISO14001:2015+Amd 1:2024
■Accreditation Body	JAB
■Scope of audit	Design and Manufacture of Zippertube Products, and EMC S Suppression products,Thermal Management Covers.
■Business Locations	Kobe Factory, Saitama Factory, Vanguard (Japan)Co., Ltd.
■Certification Numbers	ISAQ1163, ISAES537



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