Accessories

Accessories & Side Dishes

Accessories Directory 213
Flexible Braided Sleeving 214-221
Wrap Around Sleeving 222-225
Flexible Braided Shielded Sleeving 226
Heat Shrink Tubing 227
Specialty Heat Shrink Tubing 228
Heat Shrink Transitions 229
Cord Grips 230-235
Conduit & Adapters 236-242
Potting Compounds 243-245
Tapes 246-247
Terminals & Lugs 248-249
Cable Ties 250
Tools 251-253

Flexible Braided Sleeving

Technical Specifications

Physical Properties	PTN	FRN	CCF	HWN	NHN
Monofilament Diameter ASTM D-204	.010	.010	.008	.015	NA
Flammability Rating	FAR 25, FMVSS 302	VW-1, FAR 25	VW-1	-	-
Recommended Cutting	Hot Knife	Hot Knife	Scissor	Hot Knife	Hot Knife
Stock Colors	19	2	2	3	1
Wall Thickness	.025	.025	.024	.038	-
Tensile Strength PSI ASTM D-2256	85,000	55,000	55,000	85,000	55,000
Abrasion Resistance ASTM D-4157	High	High	High	Very High	Very High
Tenacity (Gm/Denier) ASTM D-638	4.5	4.6	4.6	4.5	-
Specific Gravity ASTM D-792	1.38	1.38	1.38	1.38	1.12
Moisture Absorption % ASTM D-570	.08	.08	.08	.08	1.1
Smoke D-Max ASTM E-662	56	275	275	56	-
Toxicity Index USN 713	4.2	6.2	6.2	4.2	-
Typical Elongation ASTM D-2256-8					
Break	15	15	14	20	-
3g/Denier	5	5	5	7	-
Hard Vacuum Data ASTM E-595 at 10-5 torr TML	.51	.19	.19	.51	-
CVCM	0	.01	.01	0	-
WVR	.10	.11	.11	.10	-
Operating Temperatures					
Minimum Continuous	-75°C/-103°F	-75°C/-103°F	-75°C/-103°F	-75°C/-103°F	-45°C/-49°F
Maximum Continuous Mil-I-23053	125°C/257°F	125°C/257°F	125°C/257°F	125°C/257°F	150°C/302°F
Melt ASTM D-2117	230°C/446°F	250°C/482°F	250°C/482°F	230°C/446°F	265°C/509°F
Chemical Resistance 1=No Effect 2-Little Effect 3=Affected 4=More Affected 5=Severely Affected					
Aromatic Solvents	2	2	2	2	1
Aliphatic Solvents	1	1	1	1	1
Chlorinated Solvents	3	3	3	3	1
Weak Bases	1	1	1	1	1
Salts	1	1	1	1	1
Strong Bases	2	2	2	2	2
Salt Water O-S 1926	1	1	1	1	1
Hydraulic Fluid MIL-A-8243	1	1	1	1	1
Lube Oil MIL-L-7808	1	1	1	1	1
De-Icing Fluid MIL-A-8243	1	1	1	1	1
Strong Acids	3	3	3	3	5
Strong Oxidants	2	2	2	2	5
Esters/Keytones	1	2	2	1	-
UV Light	1	1	1	1	-
Petroleum	1	1	1	1	2
Fungus ASTM G-21	1	1	1	1	2
Outgassing	med	med	med	med	high
Oxygen Index ASTM D-2863	21	31	31	21	22
Halogen Free	yes	yes	yes	yes	-

FLEXO Wrap	RYTON	K FLEX KEVLAR	nomex	TEFLON	PEEK	FLEXO HT	FLEX-SHIELD HP	METAL BRAID
FWF	**RYN**	**KVN**	**NXN**	**TFN**	**PEEK**	**HTN**	**PG01-19-001**	**MBN**
.10	.008	NA	N/A	.016	.010	.011	0.01	-
VW-1	FAR 25	-	-	FAR 25	V-0 UL94	VW-1, UL94	VW-1, UL94	-
Hot Knife	Hot Knife	Kevlar Shears	Scissor	Hot Knife	Hot Knife	Hot Knife	Kevlar Shears	Scissor
1	2	1	1	1	1	2	1	1
.025	.02	.020	-	.04	.025	.02	-	-
55,000	-	439,000	90,000	20,000	-	45,000	-	-
High	Med	Very High	High	Med	High	Med	Very High	Very High
4.6	-	23.8	4.9	1	-	2	-	-
1.38	1.37	1.44	1.38	2.10	1.32	1.68	-	-
.08	.02	-	-	<.01	-	.01	-	-
275	-	-	-	-	-	-	-	-
6.2	-	-	-	-	-	-	-	-
15	30	2.5	27	-	-	-	-	-
5	-	-	-	-	-	-	-	-
.19	-	-	-	-	-	-	-	-
.01	-	-	-	-	-	-	-	-
.11	-	-	-	-	-	-	-	-
-75°C/-103°F	-70°C/-94°F	-170°C/-340°F	-196°C/-320°F	-70°C/-94°F	-70°C/-94°F	-75°C/-103°F	-40°C/-40°F	-
125°C/257°F	200°C/392°F	160°C/320°F	350°C/662°F	280°C/550°F	260°C/500°F	150°C/302°F	150°C/302°F	-
250°C/482°F	285°C/545°F	NA	NA	310°C/590°F	340°C/644°F	240°C/464°F	n/a	-
2	-	2	-	1	1	1	2	-
1	1	2	-	1	1	1	2	-
3	-	2	-	1	1	1	2	-
1	1	1	-	1	1	1	1	-
1	1	1	-	1	1	1	1	-
2	-	2	1	1	1	1	2	-
1	1	1	-	1	1	1	1	-
1	1	1	-	1	1	1	1	-
1	1	1	-	1	1	1	1	-
1	1	1	-	1	1	1	1	-
3	-	2	2	1	2	1	2	-
2	-	2	2	1	-	1	2	-
2	1	1	-	2	-	2	1	1
1	1	4	3	1	-	1	4	2
1	1	1	1	1	1	1	1	-
1	1	2	-	1	-	1	2	-
med	low	-	-	very low	low	low	-	-
31	40	29	28	95	35	64	-	-
yes	yes	yes	yes	no	yes	no	yes	yes

Flexible Braided Sleeving

PTN

A Versatile Bundling & Protection Solution

- Economical & easy to install
- Cut & abrasion resistant
- Expands up to 150%
- Halogen free
- Resists gasoline, engine chemicals & cleaning solvents
- FAR 25 approval
- AFVSS 302 approval

FRN

Flame Retardant, Economical Sleeving Solution

- MIL-202, FAR 25, FMVSS 302, VW-1, FR-1 approved
- Economical & easy to install
- Cut & abrasion resistant
- Expands up to 150%
- Halogen free
- Resists gasoline and engine chemicals
- Temp. range -75°C to 125°C
- Melt temp. 250°C

CCF

Scissor Cut for Field Installation, Will Not Support Combustion

- Scissor cut for easy installation
- MIL-202, FAR 25, VW-1, FR-1 approved
- Cut & abrasion resistant
- Expands for ease of installation
- Halogen free
- Temp. range -75°C to 125°C
- Melt temp. 250°C

HWN

50% Thicker For The Really Abrasive Jobs

- Braided from .15 mil PET monofilament
- Extreme abrasion & cut resistance
- UV resistant
- Resists gasoline, solvents, salt water and chemicals
- Temp. range -75°C to 125°C
- Melt temp. 230°C

NHN

Innovative Flat Filament Braided for High Abrasion Resistance

- Flat filament technology
- Heavy plastic protection
- Smooth feel & reduced drag

FWF

Easy On, Easy Off Access, Will Not Support Combustion

- MIL-202, VW-1, FR-1 approved
- Economical & easy to install
- Cut & abrasion resistant
- Hook & loop closure for easy and repeatable access
- Temp. range -75°C to 125°C
- Melt temp. 250°C

RYN

Ultra Lightweight, High-Temp Tolerant and Virtually Impervious to Chemical Degradation

- FAR 25 approved
- Ultra light weight
- Highly wear resistant
- Expands up to 150%
- Resists acids, bases, solvents, fuels
- Temp. range -70°C to 200°C
- Melt temp. 285°C

FLEX-SHIELD-HP

PG01-19-001*

Tin-Plated, Copper-Wrapped Aramid Sleeve

- Lightweight alternative to metal braid for EMI/RFI protection
- -40°C to 150°C

Frequency (MHz)	Attenuation (dB)
1	50
10	63
50	64
100	65
500	73
1000	60

Call for low cost version: -15°C/+85°C

*Size	Diameter	
	Min(inches)	Max(inches)
1/8	1/16	1/4
3/8	1/4	1/2
1/2	3/8	3/4
3/4	1/2	1

MBN

Metal Braid, Tinned-Copper Sleeve

- EMI/RFI/ESD protection
- Grounding/grounding straps
- High current capacity
- ASTM-B 33 standard
- Low cost

Special Versions

Call for availability

KVN

Stronger Than Steel, Soft & Pliable

- Up to 20 times stronger than steel
- Will not melt, burn or support combustion
- Stays soft, flexible and pliable through-out -170°C operating temperature range

NXN

Soft, Pliable Flame Protection to 700°F/395°C

- Halogen free
- Asbestos free
- Resistant to gasoline and engine chemicals

FLEXA HG-CU

High Temp Stable, Abrasion Resistant, Low Outgassing

- EMI/RFI/ESD protection
- Supplied on tube former for easy installation

PEEK

500°F Protection & Bundling Solution

- High chemical resistance
- Low outgassing
- Halogen free
- Very light weight
- V-O flammability rating
- Wear resistant
- High strength alternative to fluropolymers

HTN

Very Low Outgassing, Self-Extinguishing UL-2024 Plenum Rated Sleeving

- UL 2024 rated
- FAR 25 approved
- Cut & abrasion resistant
- Expands up to 150%
- Resists gasoline and engine chemicals
- Temp. range -75°C to 150°C
- Melt temp. 250°C

TFN

High Temp Stable, Abrasion Resistant, Low Outgassing

- Plenum suitable
- FAR 25 approved
- Easy to install
- Cut & abrasion resistant
- Expands up to 150%
- Resists gasoline and other chemicals
- Temp. range -70°C to 280°C
- Melt temp. 310°C

Flexible Braided Sleeving for Cable Diameters .094-1.625

Cable Range and Colors

Colors Available
**** Add code to part number**

Part Number	Cable Range Inch min	Cable Range Inch max	WHITE WITH BLACK TRACER TW	BLACK WITH WHITE TRACER TB	NEON RED NR	NEON PINK NP	NEON YELLOW NY	NEON GREEN NG	NEON BLUE NB	BEIGE BE	CARBON CB	NITROX NX	PATRIOT PT
PTN0.13**	0.094	0.250			NR	NP	NY	NG	NB	BE	CB	NX	PT
FRN0.13**	0.094	0.250	TW	TB									
HTN0.13**	0.094	0.250	TW	TB									
RYN0.13**	0.094	0.250											
TFN0.13**	0.094	0.250											
CCF0.13**	0.125	0.250	TW	TB									
KVN0.25**	0.125	0.313											
RYN0.25**	0.125	0.375											
PTN0.25**	0.125	0.438			NR	NP	NY	NG	NB	BE	CB	NX	PT
FRN0.25**	0.125	0.438	TW	TB									
CCN0.25**	0.125	0.438											
HTN0.25**	0.125	0.438	TW	TB									
CCF0.25**	0.156	0.438	TW	TB									
TFN0.25**	0.188	0.375											
PTN0.38**	0.188	0.625			NR	NP	NY	NG	NB	BE	CB	NX	PT
FRN0.38**	0.188	0.625	TW	TB									
CCF0.38**	0.188	0.625	TW	TB									
CCN0.38**	0.188	0.625											
HTN0.38**	0.188	0.625	TW	TB									
HWN0.38**	0.188	0.750									CB		
KVN0.50**	0.250	0.625											
PTN0.50**	0.250	0.750			NR	NP	NY	NG	NB	BE	CB	NX	PT
FRN0.50**	0.250	0.750	TW	TB									
CCF0.50**	0.250	0.750	TW	TB									
CCN0.50**	0.250	0.750											
HTN0.50**	0.250	0.750	TW	TB									
RYN0.50**	0.250	0.750											
TFN0.38**	0.250	0.750											
HWN0.63**	0.313	1.000									CB		
NHN0.50**	0.375	0.625											
TFN0.50**	0.375	0.875											
PTN0.63**	0.375	1.000			NR	NP	NY	NG	NB	BE	CB	NX	PT
FRN0.75**	0.375	1.000	TW	TB									
KVN0.75**	0.500	0.875											
PTN0.75**	0.500	1.250			NR	NP	NY	NG	NB	BE	CB	NX	PT
CCN0.75**	0.500	1.250											
HTN0.75**	0.500	1.250	TW	TB									
RYN0.75**	0.500	1.250											
HWN1.00**	0.500	1.500									CB		
CCF0.75**	0.625	1.000	TW	TB									
NHN0.75**	0.625	1.000											
TFN0.75**	0.625	1.250											
PTN1.00**	0.625	1.625			NR	NP	NY	NG	NB	BE	CB	NX	PT
FRN1.50**	0.625	1.625	TW	TB									
CCN1.00**	0.625	1.625											

BOLD = Most Popular

Colors Available

**** Add code to part number**

RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
							BK			NT
										NT
		YL								
							BK			NT
RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
							BK			
										NT
RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
							BK			
						CL	**BK**			
		YL								
RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
							BK			
							BK			NT
										NT
						CL	**BK**			
							BK			
										NT
RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
		YL								
RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
							BK			
							BK			NT
						CL	**BK**			
							BK			
										NT
RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
							BK			

Flexible Braided Sleeving for Cable Diameters .750-5.500

Colors Available
**** Add code to part number**

Part Number	Cable Range Inch Min.	Max.	WHITE WITH BLACK TRACER TW	BLACK WITH WHITE TRACER TB	NEON RED NR	NEON PINK NP	NEON YELLOW NY	NEON GREEN NG	NEON BLUE NB	BEIGE BE	CARBON CB	NITROX NX	PATRIOT PT
CCF1.00**	0.750	1.188	TB	TW									
KVN1.00**	0.750	1.250											
PTN1.25**	0.750	1.750			NR	NP	NY	NG	NB	BE	CB	NX	PT
FRN1.75**	0.750	1.750	TW	TB									
HTN1.25**	0.750	1.750	TW	TB									
RYN1.25**	0.750	1.750											
HWN1.50**	0.750	2.000									CB		
CCF1.25**	1.000	1.500	TW	TB									
NHN1.25**	1.000	1.500											
KVN1.25**	1.000	1.625											
PTN1.50**	1.000	2.500			NR	NP	NY	NG	NB	BE	CB	NX	PT
FRN1.50**	1.000	2.500	TW	TB									
TFN1.25**	1.125	1.500											
CCF1.50**	1.250	2.000	TW	TB									
KVN1.50**	1.250	2.000											
PTN1.75**	1.250	2.750			NR	NP	NY	NG	NB	BE	CB	NX	PT
FRN1.75**	1.250	2.750	TW	TB									
HTN1.75**	1.250	2.750	TW	TB									
RYN1.75**	1.250	5.500											
NHN1.75**	1.500	2.000											
HWN2.00**	1.500	3.000									CB		
PTN2.00**	1.500	3.500			NR	NP	NY	NG	NB	BE	CB	NX	PT
FRN2.00**	1.500	3.500	TW	TB									
HTN2.00**	1.500	3.500	TW	TB									
PTN2.50**	1.750	4.500			NR	NP	NY	NG	NB	BE	CB	NX	PT
FRN2.50**	1.750	4.500	TW	TB									
HWN3.00**	2.000	4.000									CB		
PTN3.00**	2.500	4.750			NR	NP	NY	NG	NB	BE	CB	NX	PT
FRN3.00**	2.500	4.750	TW	TB									
HWN4.00**	2.500	5.500									CB		

BOLD = Most Popular

Handheld Hot Knife

Perfect for individual projects or small volume production. The large knife blade heats quickly and easily cuts and seals most grades of braided sleeving. Handle can also be used as a soldering gun with the appropriate tips.
110 volt operation.

Hand Held Hot Knife - Part # HKH0.00BK
Replacement Knife Blade - Part # RBH0.00BK

Bench Mount Hot Knife

Heavy duty components and heavy gauge 2 1/2" blade make this tool ideal for use in production environments. Lighted power switch. Heats to 600° C in 30 seconds.
110 volt operation.

Bench Mount Hot Knife - HKB0.00WH
Replacement Knife Blade - RBB0.00BK

Colors Available

**** Add code to part number**

		YL								
RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
							BK			NT
						CL	**BK**			
							BK			
		YL								
RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
										NT
		YL								
RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
							BK			NT
							BK			
						CL	**BK**			
RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
						CL	**BK**			
RD	OR	YL	GN	BL	PP	CL	**BK**	WH	GY	
						CL	**BK**			

#94907K – Handheld Soldering Iron/Hot Knife Kit

- Automatic ignition systems
- Butane powered
- Ergonomic design

Specifications:
Approx. temperatures:
Soldering tip: 210-400°C (410-750°F)
Torch: 1300°C (2400°F)
Gas container capacity: 20ml
Operating time for one gas filling:
120 min. at mid-setting.

25W-80W Power Range

- Multi-function heat tool

Wrap Around Sleeving

Wrap Around Zip Closure Re-enterable Wire & Cable Protection

Recommended For:

Complex Assemblies: Wrap around sleeving is a great option for complicated cable assemblies. It will fit around a wide range of wires, cables, hoses and bundles. With wrap around materials users do not need to pre-cut and slide tubing over wire bundles before adding connectors or break outs. Instead, the wire harness can be assembled and tested first, and the wrap around sleeve can be added later.

Re-Entry: The Quick-Zip and Shield-Zip versions can be opened and closed over and over again. They make it easy to add or remove wires, repair damaged wires, or adjust cable assembly lengths.

Field Repair and Adjustments: Wrap around protection is an easy and effective way to repair damaged cables or add extra protection to existing cables.

UNSHIELDED
Quick-Zip – PVC Coated Polyester Fabric with Zip-Track

Flame retardant PVC is laminated to both sides of a Polyester fabric to make this rugged jacket extremely flexible and lightweight. This reinforced construction provides good wear resistance combined with high tear strength. It's ideal for discrete wires, wire harnesses, hoses, and other applications where its flexibility, strength and abrasion protection are needed. The jacket conforms to MIL-C-43006E, Type II, Class 1.

Application Notes

Quick-Zip is easy to open and close. Once closed it is very rugged and reliable. It is a great choice for applications where re-entry is needed to access wires.

Properties

	UNSHIELDED Quick-Zip
Operating Temperature:	-20°C to 100°C
Standard Color:	Black
Standard Put-up:	Spools
Materials:	PVC laminated to Polyester fabric
Shielding:	–
Flame Rating:	UL 224 VW-1
Fastener:	Zip-Track
RoHS:	Compliant

Part Numbers

Maximum Bundle Diameter	UNSHIELDED Quick-Zip Part #:100 Foot Spool
1/2 Inch (12.7 mm)	PG99-16-064-0.5
3/4 Inch (19.0 mm)	PG99-16-064-0.75
1.0 Inch (25.4 mm)	PG99-16-064-1.0
1 1/2 Inch (38.1 mm)	PG99-16-064-1.5
2.0 Inch (50.8 mm)	PG99-16-064-2.0

SHIELDED
Shield-Zip – Shielded PVC Coated Polyester Fabric with Zip-Track

Designed to meet the demand for a quality jacket with lifetime flexibility in most installations, the 63-10 jacket is manufactured of .010" thick high-temperature PVC materials. Inside overlap construction for military applications meets Mil-I-631D, Type F, Form S, Grade C, Class 1. Recognized under the components programs of Underwriters Laboratories, Inc., and Canadian Standards Laboratories. This lightweight shielding is combined with a jacket for economy and flexibility, yet provides protective shielding. Grounding is accomplished with a tinned-copper braid.

Application Notes

Shield-Zip is easy to open and close. It provides excellent shielding at high frequencies. This is a great option for wire assemblies and bundles that need additional shielding, or for complex assemblies with multiple break-outs. The braid can be separated from the jacket for easy connection with a lug or ring terminal.

Properties

	SHIELDED Shield-Zip
Operating Temperature:	-20°C to 100°C
Standard Color:	Black
Standard Put-up:	Spools
Materials:	PVC laminated to Polyester fabric
Shielding:	Aluminum Foil Shield with Tinned Copper Braid
Flame Rating:	UL 224 VW-1
Fastener:	Zip-Track
RoHS:	–
Shield Attenuation:	>85 dB from 10 MHz thru 20 GHz
Enclosure Tool:	ZTZ-SP

Part Numbers

Maximum Bundle Diameter	SHIELDED Shield-Zip Part #:100 Foot Spool
1/2 Inch (12.7 mm)	PG97-17-004-0.5
3/4 Inch (19.0 mm)	PG97-17-004-0.75
1.0 Inch (25.4 mm)	PG97-17-004-1.0
1 1/2 Inch (38.1 mm)	PG97-17-004-1.5
2.0 Inch (50.8 mm)	PG97-17-004-2.0

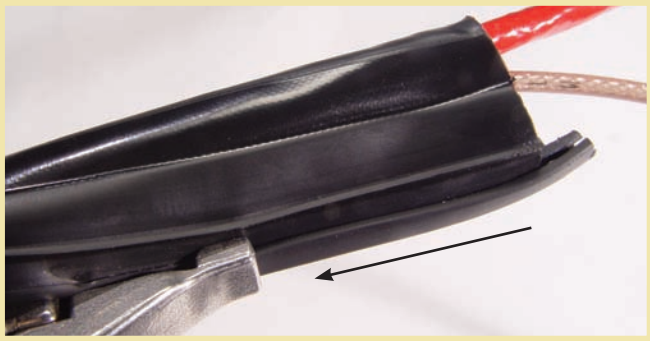
SHIELDED & UNSHIELDED Assembly Instructions

1. Lay wires and cables in wrap around sleeving. (Shielded version shown)

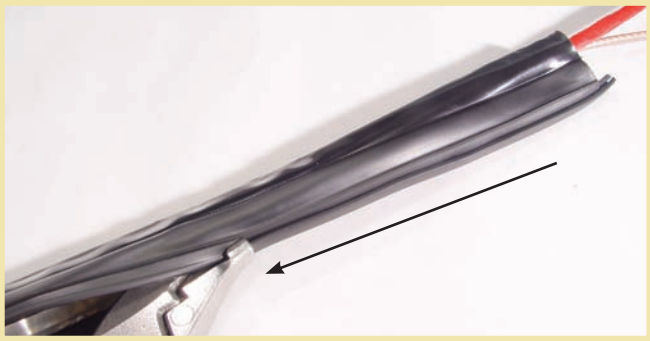
2. Slightly open ZTZ-SP hand tool.

3. Slide into Zip tool.

4. Insert opposite side of track into tip of tool. Make sure the tracks mate into each other.



5. Carefully pull tool along sleeving until closed.



6. Slide completely down length of sleeve.

To Re-enter for Repair or Rework

Use ZTZ-SP to disengage zip-track. Separate and slide tool up entire length to open.

Wrap Around Sleeving

Wrap Around Adhesive Closure Wire & Cable Protection

Recommended For:

Complex Assemblies: Wrap around sleeving is a great option for complicated cable assemblies. It will fit around a wide range of wires, cables, hoses and bundles. With wrap around materials users do not need to pre-cut and slide tubing over wire bundles before adding connectors or break outs. Instead, the wire harness can be assembled and tested first, and the wrap around sleeve can be added later.

Field Repair and Adjustments: Wrap around protection is an easy and effective way to repair damaged cables or add extra protection to existing cables.

UNSHIELDED
Quick-Wrap – PVC Coated Polyester Fabric with Adhesive

Flame retardant PVC is laminated to both sides of a Polyester fabric to make this rugged jacket extremely flexible and lightweight. A strip of high strength fast curing (24hrs) acrylic adhesive is bonded to one edge to provide a secure and flexible closure. This reinforced construction provides good wear resistance combined with high tear strength. It's ideal for discrete wires, wire harnesses, hoses, and other applications where its flexibility, strength and abrasion protection are needed. The jacket conforms to MIL-C-43006E, Type II, Class 1.

Application Notes

Quick-Wrap is quick and easy to install. It is a great alternative to long runs of heat shrink, especially for complex cables with lots of break-outs or for assemblies with an unusual mix of wires, cables and/or hoses. It can be added after the wire assembly has been built and tested or to add extra protection on an existing assembly.

Properties

	UNSHIELDED Quick-Wrap
Operating Temperature:	-20°C to 100°C
Standard Color:	Black
Standard Put-up:	Spools
Materials:	PVC laminated to Polyester fabric
Shielding:	–
Flame Rating:	UL 224 VW-1
Fastener:	Adhesive
RoHS:	Compliant

Part Numbers

Maximum Bundle Diameter	UNSHIELDED Quick-Wrap Part #:100 Foot Spool
1/2 Inch (12.7 mm)	PG93-04-009-0.5
3/4 Inch (19.0 mm)	PG93-04-009-0.75
1.0 Inch (25.4 mm)	PG93-04-009-1.0
1 1/2 Inch (38.1 mm)	PG93-04-009-1.5
2.0 Inch (50.8 mm)	PG93-04-009-2.0

SHIELDED
Shield-Wrap – Shielded PVC Coated Polyester Fabric with Adhesive

Z-Shield-AL is a combination of a polyurethane film bonded to our SH1 lightweight aluminum foil/polyester shield for maximum shielding effectiveness. Extremely useful in electrical applications where shielding is needed and reentry is not required. Ideal for flat cable shielding requirements. Will cross reference to Chomerics CJ-021 Jacket.

Application Notes

Shield-Wrap is easy to add to wire harnesses and bundles – especially complex assemblies with multiple break-outs. It has excellent shielding properties across a wide range of high frequencies. This makes it a great option to solve unexpected EMI noise problems or to add extra noise protection.

Properties

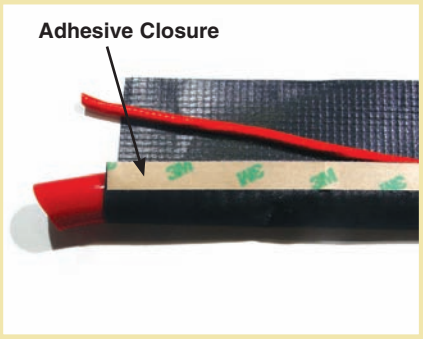
	SHIELDED Shield-Wrap
Operating Temperature:	-20°C to 100°C
Standard Color:	Black
Standard Put-up:	Spools
Materials:	PVC laminated to Polyester fabric
Shielding:	Aluminum Foil Shield with Tinned Copper Braid
Flame Rating:	UL 224 VW-1
Fastener:	Adhesive
RoHS:	–
Shield Attenuation:	>85 dB from 10 MHz thru 20 GHz
Enclosure Tool:	Z Track Enclosure

Part Numbers

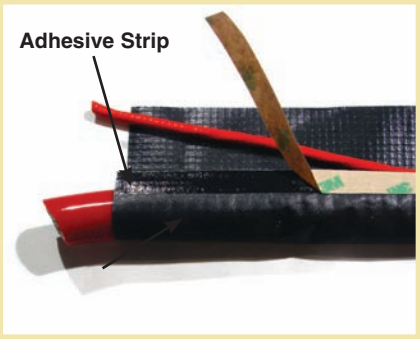
Maximum Bundle Diameter	SHIELDED Shield-Wrap Part #:100 Foot Spool
1/2 Inch (12.7 mm)	PG94-04-003-0.5
3/4 Inch (19.0 mm)	PG94-04-003-0.75
1.0 Inch (25.4 mm)	PG94-04-003-1.0
1 1/2 Inch (38.1 mm)	PG94-04-003-1.5
2.0 Inch (50.8 mm)	PG94-04-003-2.0

UNSHIELDED Quick-Wrap Assembly Instructions

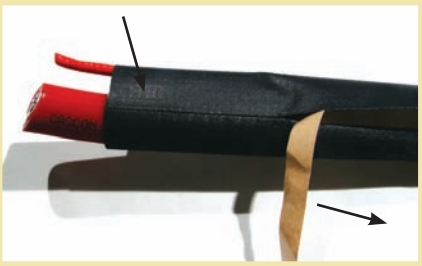
1. Lay wire and/or cables on Quick-Wrap.



2. Fold over adhesive closure side of sleeving.



3. Start to remove non-stick liner.



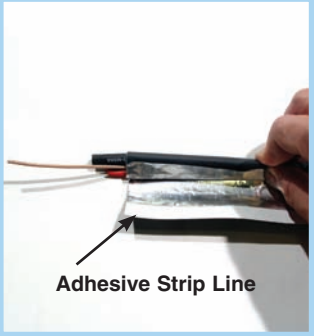
5. Fold over other side of sleeving onto adhesive strip. Pull liner out a few inches at a time while pressing the sleeving closed. Work up the assembly until complete.

Complete protection in place.

SHIELDED Quick-Wrap Assembly Instructions

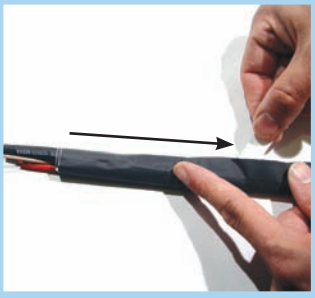
1. Identify SHIELDED (inside) and environmentally protected (outside). Note position of adhesive strip.

2. Lay wire and cables on shielded side.

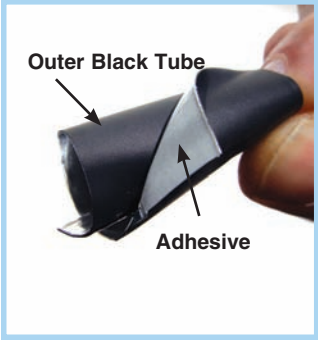


3. Fold over the side without the adhesive strip line.

4. Remove the non-stick liner and stick adhesive to outside of black tube.



5. Continue to remove non-stick lining until complete.



Correct Adhesive Termination

Incorrect Adhesive Termination

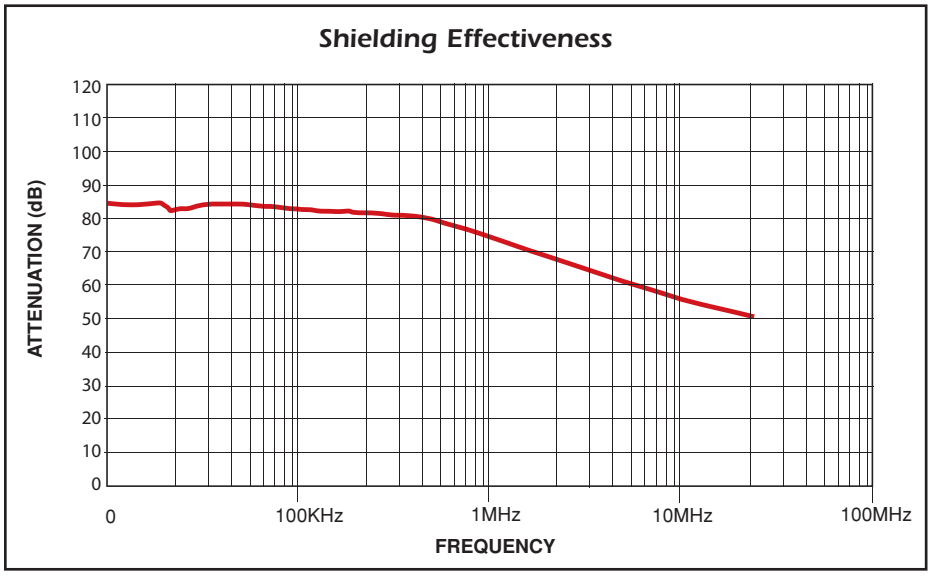
Flexible Braided Shielded Sleeving

EMI/RFI - EMC Braid

Flexa HG-CU Flexible Tinned Copper Braid

This braided shield (Screen) is woven over a flexible PVC tube. The tube maintains the shielding shape for excellent shielding performance and simplifies installation. Just attach your wires/cables to the end and pull the tube out from the braid.

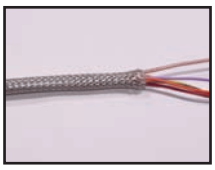
Part Number	Trade Size	Cable Range inch (mm) min	Cable Range inch (mm) max	Stranding	Cross Section mm2	Weight (kg/m) +/-10% Pounds Per Foot
4051.701.008	07	(2.5) 0.098	(10.0) 0.394	24x5x0.20mm2	3.0	(0.070) 0.047
4051.701.013	10	(5.0) 0.197	(16.0) 0.630	24x6x0.20mm2	4.5	(0.930) 0.625
4051.701.017	15	(12.0) 0.472	(22.0) 0.866	24x8x0.20mm2	6.0	(0.109) 0.073
4051.701.025	20	(16.0) 0.630	(27.0) 1.063	36x6x0.24mm2	8.7	(0.196) 0.132
4051.701.040	25	(20.0) 0.787	(35.0) 1.378	48x7x0.24mm2	11.6	(0.336) 0.226
4051.701.055	35	(25.0) 0.984	(45.0) 1.772	48x8x0.24mm2	14.5	(0.370) 0.249



How to Pull Through

Tape wires/cables to be pulled and insert into end of PVC tube.

Use electrical or silicone tape to secure wires/cables to PVC tube.



Push the braided shield while pulling PVC tube and wires/cables through.

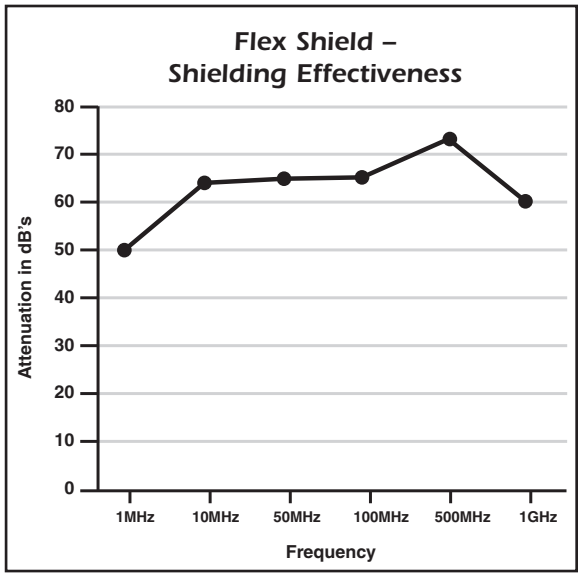
After PVC tube comes free of the braided shield, un-tape the wires/cables.

Wires/cables are now ready to be un-taped and terminated.

High Performance Flex Shield

High temperature, ultra light-weight, tinned copper foil-wrapped Aramid Monofilaments braided shield (Screen). This shield works in temperatures from -40°C to 150°C (-40°F to 302°F) and is extremely strong and flexible.

Part Number	Cable Range inch (mm) min	Cable Range inch (mm) max	Weight (kg/m) +/-10% Pounds Per Foot
PG01-19-001-1/8	(1.6) 0.063	(6.4) 0.250	(0.012) 0.008
PG01-19-001-3/8	(6.4) 0.250	(12.7) 0.500	(0.021) 0.014
PG01-19-001-1/2	(9.5) 0.375	(19.1) 0.750	(0.031) 0.021
PG01-19-001-3/4	(12.7) 0.500	(25.4) 1.000	(0.042) 0.028



Performance

Frequency	Attenuation dB
1MHZ	50
10MHz	63
50MHz	64
100MHz	65
500MHz	73
1GHz	60

DSG-Canusa's Heat Shrink Tubing is supplied in various shrink ratios, materials and thickness. Available in several colors with a wide range of operating temperatures; most are flame retardant. Adhesive lined version forms a bond to the underlying surface, filling small voids. When cool this creates a barrier against water, moisture, dirt and other contaminants. Custom lengths are available. Call for ordering information.

CPX100 Heat Shrink (2:1 Ratio)

Thin Wall Flexible Polyolefin – Heat Shrink

Flame Retardant:	Yes except Clear
Continuous Operating Temperature:	-55° to 135°C (-67° to 275°F)
Shrink Temperature:	120°C (248°F)
Other Colors Available:	Red, White, Blue, Yellow, Green, Clear
Packing:	Spools and 48" sticks

Meets UL224, CSA C22.2 No. 198.1, MIL-DTL-23053/5 Class 1 & 2
AMS3636 & 3637, DEF STAN 59-97Issue 3, Type 2a

CPX100 Heat Shrink (2:1 Ratio)	Trade Size	Cable OD Inches Max.	Cable OD Inches Min.
CPX100-0047-BLK	3/64"	0.047	0.023
CPX100-0063-BLK	1/16"	0.063	0.031
CPX100-0094-BLK	3/32"	0.094	0.047
CPX100-0125-BLK	1/8"	0.125	0.063
CPX100-0187-BLK	3/16"	0.188	0.094
CPX100-0250-BLK	1/4"	0.250	0.125
CPX100-0312-BLK	5/16"	0.313	0.188
CPX100-0375-BLK	3/8"	0.375	0.250
CPX100-0500-BLK	1/2"	0.500	0.313
CPX100-0750-BLK	3/4"	0.750	0.375
CPX100-1000-BLK	1"	1.000	0.500
CPX100-1250-BLK	1 1/4"	1.250	0.625
CPX100-1500-BLK	1 1/2"	1.500	0.750
CPX100-2000-BLK	2"	2.00	1.000
CPX100-3000-BLK	3"	3.00	1.500
CPX100-4000-BLK	4"	4.00	2.000

CPA100 Heat Shrink (3:1 Ratio)

Thin Dual Wall Flexible Polyolefin – Adhesive Lined

Flame Retardant:	Yes except Clear
Continuous Operating Temperature:	-55° to 110°C (-67° to 230°F)
Shrink Temperature:	120°C (248°F)
Other Colors Available:	Red, Blue, Clear
Packing:	Spools and 48" sticks

Meets MIL-DTL-23053/4 Class 3

CPA100 Heat Shrink (3:1 Ratio)	Trade Size	Max.	Min.
CPA100-0125-BLK	1/8"	0.125	0.040
CPA100-0187-BLK	3/16"	0.188	0.060
CPA100-0250-BLK	1/4"	0.250	0.080
CPA100-0312-BLK	5/16"	0.313	0.100
CPA100-0375-BLK	3/8"	0.375	0.125
CPA100-0500-BLK	1/2"	0.500	0.160
CPA100-0750-BLK	3/4"	0.750	0.250
CPA100-1000-BLK	1"	1.000	0.320
CPA100-1250-BLK	1 1/4"	1.250	0.416
CPA100-1500-BLK	1.57"	1.570	0.510

DERAY IHKT Features (4:1 Ratio)

Thin Dual Wall Flexible Polyolefin – Adhesive Lined

Flame Retardant:	Yes
Continuous Operating Temperature:	-55° to 135°C (-67° to 275°F)
Shrink Temperature:	100°C (212°F)
Other Colors Available:	Red, Blue, Clear
Packing:	48" sticks

Meets VG95343, Part 12, type D

Deray IHKT Heat Shrink (4:1 Ratio)	Max.	Min.
DERAYIHKT-0157-BLK-4FTSTK	0.157	0.039
DERAYIHKT-0315-BLK-4FTSTK	0.315	0.080
DERAYIHKT-0472-BLK-4FTSTK	0.472	0.118
DERAYIHKT-0630-BLK-4FTSTK	0.630	0.160
DERAYIHKT-0945-BLK-4FTSTK	0.945	0.240
DERAYIHKT-1260-BLK-4FTSTK	1.260	0.315
DERAYIHKT-2047-BLK-4FTSTK	2.047	0.512

CFHR Features (6:1 Ratio)

Heavy Wall Cross linked Polyolefin – Adhesive Lined

Continuous Operating Temperature:	-55° to 135°C (-67° to 275°F)
Shrink Temperature:	120°C (248°F)
Packing:	6"or 48" sticks

CFHR Heat Shrink (6:1 Ratio)	Max.	Min.
CFHR-0750-BLK-LINED-4FTSTK	0.75	0.125
CFHR-1300-BLK-LINED-4FTSTK	1.30	0.220
CFHR-1750-BLK-LINED-4FTSTK	1.75	0.290
CFHR-2000-BLK-LINED-4FTSTK	2.00	0.330
CFHR-2750-BLK-LINED-4FTSTK	2.75	0.460
CFHR-3500-BLK-LINED-4FTSTK	3.50	0.673
CFHR-4700-BLK-LINED-4FTSTK	4.70	0.900

Specialty Heat Shrink Tubing

Polyolefin Repair Tubing
UnShielded, Shielded or Environmentally Sealed

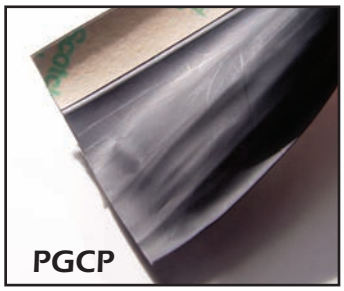
It wraps around cables, making it ideal for repairs and complex assemblies. Connectors and break outs can remain in place!
Simply select the correct size from the chart, wrap the tubing around the cable (note: the shield and meltable liner should be on the inside), remove the 3m adhesive liner cover and stick the tubing to it. Carefully heat the adhered sides to secure the bond, then recover the other side of tubing.

Select:
PGCP for standard repairs or where you need additional flexibility.
PGSCP for Shielded applications
also see page 252 for repair kit.
PGALCP for applications where a hot melt liner is needed to environmentally seal and encapsulate the repair.
Please note this is ideal for doing cable breakouts. Simply punch a hole the tubing at the appropriate place and pass the wire though the hole before recovering. Unlike traditional heat shrink materials, will not split apart when scored or punched.

See our Repair Instructions on pages 39-41 for complete details.

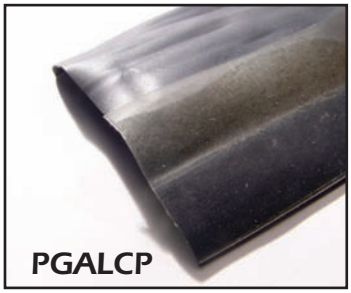
Polyolefin Repair Tubing

		Cable Range - inch (mm)	
UnShielded	Shielded	Recovered	Expanded
PGCP1	PGSCP1	0.125 (3.2)	0.187 (4.7)
PGCP2	PGSCP2	0.188 (4.8)	0.249 (6.3)
PGCP3	PGSCP3	0.250 (6.4)	0.370 (9.4)
PGCP4	PGSCP4	0.380 (9.7)	0.490 (12.4)
PGCP5	PGSCP5	0.500 (12.7)	0.620 (15.7)
PGCP6	PGSCP6	0.600 (15.2)	0.740 (18.8)
PGCP7	PGSCP7	0.750 (19.1)	0.870 (22.1)
PGCP8	PGSCP8	0.880 (22.4)	0.990 (25.1)
PGCP9	PGSCP9	1.000 (25.4)	1.120 (28.4)
PGCP10	PGSCP10	1.130 (28.7)	1.240 (31.5)
PGCP11	PGSCP11	1.250 (31.8)	1.370 (34.8)
PGCP12	PGSCP12	1.380 (35.1)	1.490 (37.8)
PGCP13	PGSCP13	1.500 (38.1)	1.620 (41.1)
PGCP14	PGSCP14	1.630 (41.4)	1.750 (44.5)



Polyolefin Repair Tubing
Environmentally Sealed

	Cable Range inch (mm)	
	Recovered	Expanded
PGALCP-1	0.040 (1.0)	0.075 (1.9)
PGALCP-2	0.076 (1.9)	0.125 (3.2)
PGALCP-3	0.126 (3.2)	0.174 (4.4)
PGALCP-4	0.178 (4.5)	0.250 (6.4)



Shrink-N-Shield EMI Tubing

Single Step Shielding and Jacketing Installation

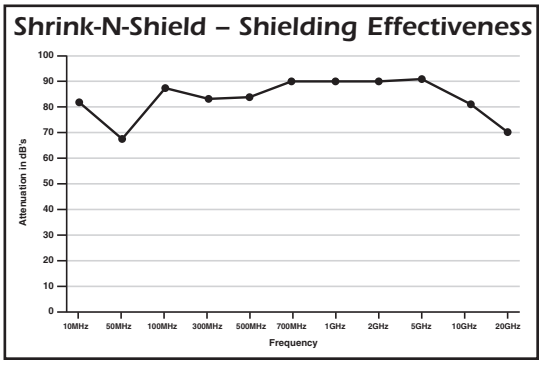
Shrink-N-Shield combines two proven technologies in a single, easy-to-install product. It is ideal for small cables and wire bundles (1/2" and less in diameter). This product combines MIL-I-23053/5 heat shrink tubing and conductive cloth. It provides excellent wire protection and shielding.

There are various ways to use Shrink-N-Shield, from simply exposing the shielding cloth and clamping under the saddles of a cable clamp to tying off to a drain wire. Go to www.PeiGenesis.com for the full details.

	Cable Range inch (mm)	
	Recovered	Expanded
PGSNS4	0.093 (2.4)	0.187 (4.7)
PGSNS7	0.125 (3.2)	0.250 (6.4)
PGSNS10	0.188 (4.8)	0.375 (9.5)
PGSNS12	0.250 (6.4)	0.500 (12.7)
PGSNS20	0.375 (9.5)	0.750 (19.1)
PGSNS25	0.500 (12.7)	1.000 (25.4)

Performance

Frequency	Attenuation dB
10MHz	82
50MHz	68
100MHz	88
300MHz	83
500MHz	84
700MHz	90
1GHz	90
2GHz	90
5GHz	91
10GHz	81
20GHz	70



Hellermann Heatshrink Transitions are used to break out or consolidate wires or cables in environmentally sealed harnesses. The boots are supplied with a pre-applied adhesive lining that bonds to and/or encapsulates most cable jacket materials. The standard material for these boots is a chemically cross-linked polyolefin. They can also be supplied in Halogen free, silicone, or High temp Viton* materials. Please call for more information.

*Viton is a registered trademark of the Dow Dupont Company.

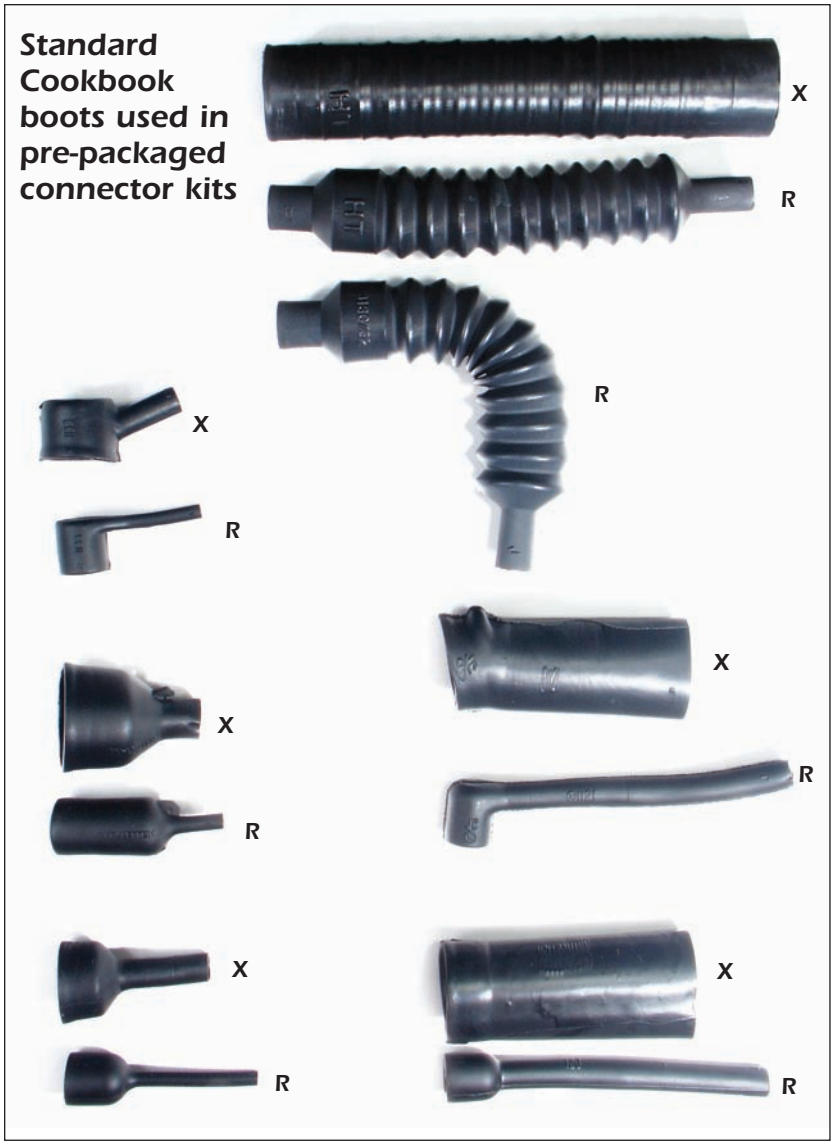
CALL FOR MORE INFORMATION

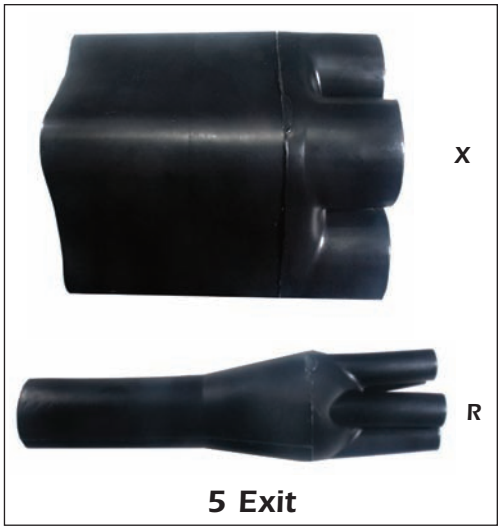
Single Exit

2 Exit
Available in Straight, Y's, 45 Degree

3 & 4 Exit

Standard Cookbook boots used in pre-packaged connector kits





5 Exit

6 Exit

Single Exit D'sub

X = Expanded R = Recovered

CG Cord Grips

Part # Description	Cable Range Min (mm)	Max (mm)	Min inch	Max inch	Connector Size & Style 5015	26482 S1	26482 S2	38999 I	38999 II	38999 III
ML – Metal Long with Flex Relief Nickel Plated Brass										
PG7ML1	-	-	-	-	8S	8	-	9	8	A/9
PG7ML2	-	-	-	-	8S	8	-	9	8	A/9
PG9ML1	4.0	6.5	0.157	0.256	10SL	10	-	11	10	B/11
PG9ML2	7.5	9.5	0.295	0.374	10SL	10	-	11	10	B/11
PG11ML1	6.5	9.5	0.256	0.374	12/12S	12	10	13	12	-
PG11ML2	7.0	10.5	0.276	0.413	12/12S	12	10	13	12	-
PG13.5ML1	6.5	9.5	0.256	0.374	14/14S	14	12	15	14	C/13
PG13.5ML2	8.5	10.5	0.335	0.413	14/14S	14	12	15	14	C/13
PG16ML1	6.5	9.5	0.256	0.374	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG16ML2	7.0	10.5	0.276	0.413	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG16ML3	9.5	13.0	0.374	0.512	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG21ML1	9.0	13.0	0.354	0.512	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H23
PG21ML2	13.0	15.5	0.512	0.610	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H23
PG21ML3	14.0	18.0	0.551	0.709	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H23
PG29ML1	17.0	21.0	0.669	0.827	28/32	-	-	-	-	J/25
PG29ML2	21.0	25.0	0.827	0.984	28/32	-	-	-	-	J/25
MS – Metal Short with Nickel Plated Brass										
PG7MSR	2.0	5.0	0.079	0.197	8S	8	-	9	8	A/9
PG7MSA	3.0	6.5	0.118	0.256	8S	8	-	9	8	A/9
PG9MSR	2.0	6.0	0.079	0.236	10SL	10	-	11	10	B/11
PG9MSA	4.0	8.0	0.157	0.315	10SL	10	-	11	10	B/11
PG11MSR	3.0	7.0	0.118	0.276	12/12S	12	10	13	12	-
PG11MSA	5.0	10.0	0.197	0.394	12/12S	12	10	13	12	-
PG13.5MSR	5.0	9.0	0.197	0.354	14/14S	14	12	15	14	C/13
PG13.5MSA	6.0	12.0	0.236	0.472	14/14S	14	12	15	14	C/13
PG16MSR	7.0	12.0	0.276	0.472	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG16MSA	10.0	14.0	0.394	0.551	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG21MSR	9.0	16.0	0.354	0.630	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H23
PG21MSA	13.0	18.0	0.512	0.709	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H23
PG29MSR	12.0	20.0	0.472	0.787	28/32	-	-	-	-	J/25
PG29MSA	18.0	25.0	0.709	0.984	28/32	-	-	-	-	J/25
PG36MSR	20.0	26.0	0.787	1.024	36/40	-	-	-	-	-
PG36MSA	22.0	32.0	0.866	1.260	36/40	-	-	-	-	-
PF – Plastic with Spring Flex Relief										
PG7PFR	2.0	5.0	0.079	0.197	8S	8	-	9	8	A/9
PG7PFA	3.0	6.5	0.118	0.256	8S	8	-	9	8	A/9
PG9PFR	2.0	6.0	0.079	0.236	10SL	10	-	11	10	B/11
PG9PFA	4.0	8.0	0.157	0.315	10SL	10	-	11	10	B/11
PG11PFR	3.0	7.0	0.118	0.276	12/12S	12	10	13	12	-
PG11PFA	5.0	10.0	0.197	0.394	12/12S	12	10	13	12	-
PG13.5PFR	5.0	9.0	0.197	0.354	14/14S	14	12	15	14	C/13
PG13.5PFA	6.0	12.0	0.236	0.472	14/14S	14	12	15	14	C/13
PG16PFR	7.0	12.0	0.276	0.472	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG16PFA	10.0	14.0	0.394	0.551	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG21PFR	9.0	16.0	0.354	0.630	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H23
PG21PFA	13.0	18.0	0.512	0.709	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H23

Part # Description	Cable Range Min (mm)	Max (mm)	Min inch	Max inch	Connector Size & Style 5015	26482 S1	26482 S2	38999 I	38999 II	38999 III
PL – Plastic Long with Flex Relief										
PG9PL1	4.0	6.5	0.157	0.256	10SL	10	-	11	10	B/11
PG9PL2	7.5	9.5	0.295	0.374	10SL	10	-	11	10	B/11
PG11PL1	6.5	9.5	0.256	0.374	12/12S	12	10	13	12	-
PG11PL2	7.0	10.5	0.276	0.413	12/12S	12	10	13	12	-
PG13.5PL1	6.5	9.5	0.256	0.374	14/14S	14	12	15	14	C/13
PG13.5PL2	8.5	10.5	0.335	0.413	14/14S	14	12	15	14	C/13
PG16PL1	6.5	9.5	0.256	0.374	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG16PL2	7.0	10.5	0.276	0.413	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG16PL3	9.5	13.0	0.374	0.512	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG21PL1	9.0	13.0	0.354	0.512	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H/23
PG21PL2	13.0	15.5	0.512	0.610	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H/23
PG21PL3	14.0	18.0	0.551	0.709	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H/23
PG29PL1	17.0	21.0	0.669	0.827	28/32	-	-	-	-	J/25
PG29PL2	21.0	25.0	0.827	0.984	28/32	-	-	-	-	J/25
PS – Plastic Short										
PG7PSR	2.0	5.0	0.079	0.197	8S	8	-	9	8	A/9
PG7PSA	3.0	6.5	0.118	0.256	8S	8	-	9	8	A/9
PG9PSR	2.0	6.0	0.079	0.236	10SL	10	-	11	10	B/11
PG9PSA	4.0	8.0	0.157	0.315	10SL	10	-	11	10	B/11
PG11PSR	3.0	7.0	0.118	0.276	12/12S	12	10	13	12	-
PG11PSA	5.0	10.0	0.197	0.394	12/12S	12	10	13	12	-
PG13.5PSR	5.0	9.0	0.197	0.354	14/14S	14	12	15	14	C/13
PG13.5PSA	6.0	12.0	0.236	0.472	14/14S	14	12	15	14	C/13
PG16PSR	7.0	12.0	0.276	0.472	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG16PSA	10.0	14.0	0.394	0.551	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG21PSR	9.0	16.0	0.354	0.630	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H/23
PG21PSA	13.0	18.0	0.512	0.709	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H/23
PG29PSR	12.0	20.0	0.472	0.787	28/32	-	-	-	-	J/25
PG29PSA	18.0	25.0	0.709	0.984	28/32	-	-	-	-	J/25
PG36PSR	20.0	26.0	0.787	1.024	36/40	-	-	-	-	-
PG36PSA	22.0	32.0	0.866	1.260	36/40	-	-	-	-	-

Torque Table

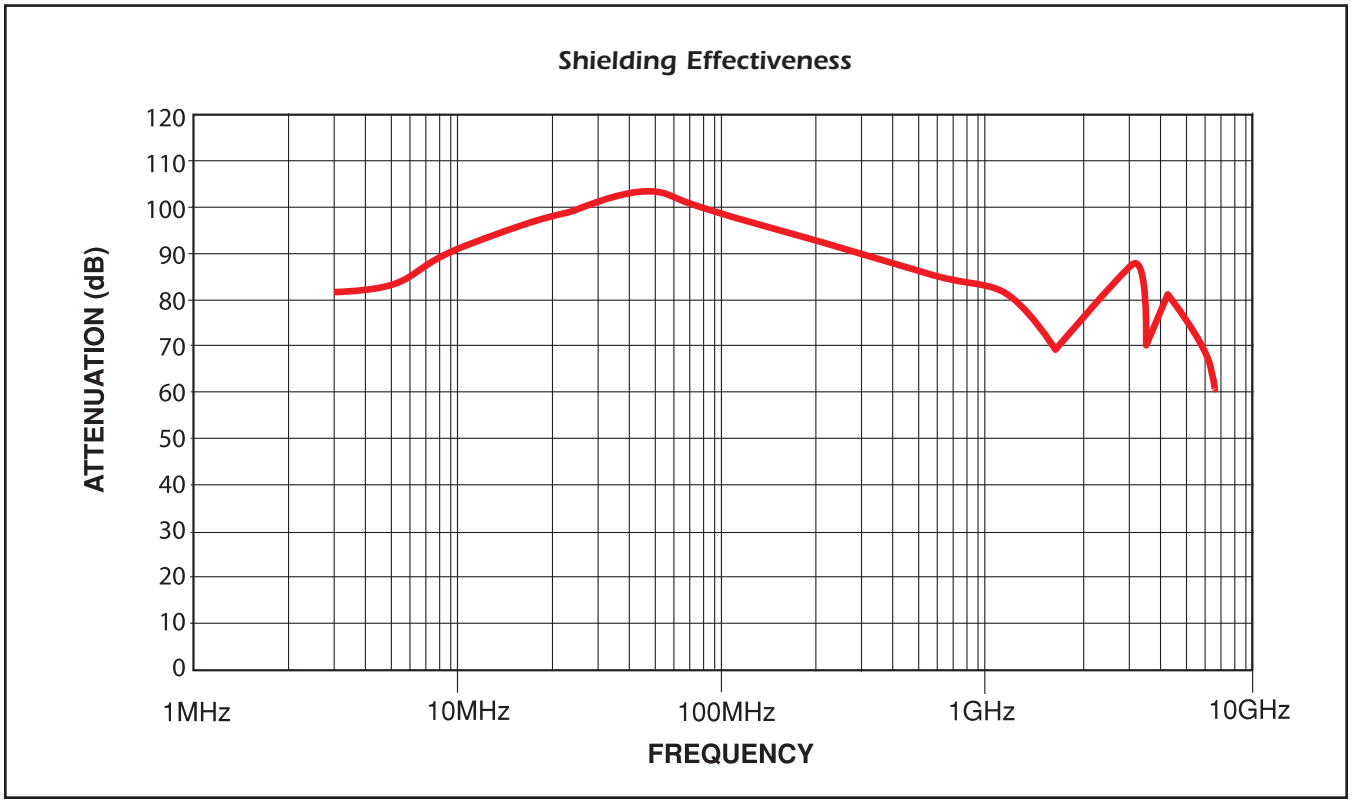
External Thread Sizes	Non-Metallic Cord Grips: Dome Nuts 1bf-in.	Dome Nuts NM	External Thread Lock Nuts 1bf-in.	External Thread Lock Nuts NM	Metal Cord Grips: Dome Nuts 1bf-in.	Dome Nuts NM	External Thread Lock Nuts 1bf-in.	External Thread Lock Nuts NM
PG7	14.00	1.90	22.00	2.50	37.00	4.00	55.00	6.20
PG9	22.00	2.50	33.00	4.00	36.00	4.00	55.00	6.20
PG11	22.00	2.50	33.00	4.00	36.00	4.00	55.00	6.20
PG13.5	22.00	2.50	33.00	4.00	36.00	4.00	55.00	6.20
PG16	29.00	3.30	44.00	5.00	44.00	4.00	66.00	7.50
PG21	44.00	5.00	66.00	7.50	59.00	5.00	88.50	10.00
PG29	44.00	5.00	66.00	7.50	59.00	6.50	88.50	10.00
PG36	44.00	5.00	66.00	7.50	59.00	6.50	88.50	10.00

CG Cord Grips – Metal Short Shielded

Note: Cable shield diameters may be calculated by subtracting the cable jacket thickness multiplied by two from the cable outside diameters.

Cable OD – (Jacket Thickness X 2) = Shield Diameter

Part # Description	Style	Cable Diameter				Shield Diameter				Connector Series Shell Size					
		Min mm	Max mm	Min inch	Max inch	Min mm	Max mm	Min inch	Max inch	5015	26482 S1	26482 S2	38999 I	38999 II	38999 III
PG7MSS1	A	4.0	6.0	0.157	0.236	1.5	4.0	0.059	0.157	8S	8	-	9	8	A/9
PG7MSS2	A	6.0	9.5	0.236	0.374	1.5	6.5	0.059	0.256	8S	8	-	9	8	A/9
PG9MSS1	A	4.0	6.5	0.157	0.256	1.5	4.0	0.059	0.157	10SL	10	-	11	10	B/11
PG9MSS2	A	6.5	9.5	0.256	0.374	2.5	6.5	0.098	0.256	10SL	10	-	11	10	B/11
PG9MSS3	B	8.0	10.5	0.315	0.413	3.5	8.5	0.138	0.335	10SL	10	-	11	10	B/11
PG11MSS1	A	6.5	9.5	0.256	0.374	3.5	8.5	0.138	0.335	12/12S	12	10	13	12	-
PG11MSS2	A	8.0	10.5	0.315	0.413	3.5	8.5	0.138	0.335	12/12S	12	10	13	12	-
PG11MSS3	B	9.0	13.0	0.354	0.512	6.5	10.5	0.256	0.413	12/12S	12	10	13	12	-
PG13.5MSS1	A	6.5	9.5	0.256	0.374	2.5	6.5	0.098	0.256	14/14S	14	12	15	14	C/13
PG13.5MSS2	A	7.0	10.5	0.276	0.413	3.0	8.0	0.118	0.315	14/14S	14	12	15	14	C/13
PG13.5MSS3	A	9.0	13.0	0.354	0.512	6.5	10.5	0.256	0.413	14/14S	14	12	15	14	C/13
PG16MSS1	A	6.5	9.5	0.256	0.374	3.5	8.0	0.138	0.315	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG16MSS2	A	7.0	10.5	0.276	0.413	4.5	8.0	0.177	0.315	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG16MSS3	A	9.0	13.0	0.354	0.512	4.5	8.0	0.177	0.315	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG16MSS4	B	11.5	15.5	0.453	0.610	9.5	13.5	0.374	0.531	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG16MSS5	B	14.0	18.0	0.551	0.709	10.5	14.5	0.413	0.571	16/16S/18	16/18	14/16/18	17/19	16/18	D/15/E/17
PG21MSS1	A	9.0	13.0	0.354	0.512	5.5	9.5	0.217	0.374	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H/23
PG21MSS2	A	11.5	15.5	0.453	0.610	9.5	13.5	0.374	0.531	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H/23
PG21MSS3	B	17.0	20.0	0.669	0.787	13.0	18.0	0.512	0.709	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H/23
PG21MSS4	B	20.0	25.0	0.787	0.984	15.0	21.0	0.591	0.827	20/22/24	20/22/24	20/22/24	21/23/25	20/22/24	F/19/G/21/H/23
PG29MSS1	A	20.0	25.0	0.787	0.984	15.0	20.0	0.591	0.787	28/32	-	-	-	-	J/25
PG29MSS2	B	24.0	28.0	0.945	1.102	18.0	25.5	0.709	1.004	28/32	-	-	-	-	J/25
PG29MSS3	B	17.0	32.0	0.669	1.260	24.0	31.0	0.945	1.220	28/32	-	-	-	-	J/25
PG29MSS4	B	29.0	34.0	1.142	1.339	24.0	31.0	0.945	1.220	28/32	-	-	-	-	J/25
PG36MSS1	A	24.0	28.0	0.945	1.102	18.0	25.5	0.709	1.004	36/40	-	-	-	-	-
PG36MSS2	A	29.0	34.0	1.142	1.339	24.0	31.0	0.945	1.220	36/40	-	-	-	-	-



Cord Grip and Conduit Thread Adapters

Enlargers

Reducers

External Thread \ Internal Thread	PG7	PG9	PG11	PG13.5	PG16	PG21	PG29	PG36	PG42	PG48
PG7		22866.9	-	-	-	-	-	-	-	-
PG9	22800.9		22867.9	22868.9	-	-	-	-	-	-
PG11	22801.9	22802.9		22869.9	22870.9	22871.9	-	-	-	-
PG13.5	22803.9	22804.9	22805.9		22872.9	22873.9	-	-	-	-
PG16	22806.9	22807.9	22808.9	22809.9		22874.9	22875.9	-	-	-
PG21	-	-	22810.9	22811.9	22812.9		22876.9	-	-	-
PG29	-	-	-	22813.9	22814.9	22815.9		22877.9	-	-
PG36	-	-	-	-	-	22816.9	22817.9		22878.9	-
PG42	-	-	-	-	-	-	22818.9	22819.9		22879.9
PG48	-	-	-	-	-	-	22820.9	22821.9	-	

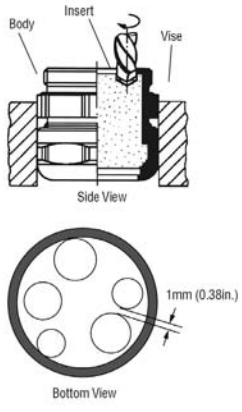
	O-Ring/Seal Rings		Lock Nuts	
	Perbunan -20° to +120°C	Silicone -60° to +200°C	Black Polyamide	Nickel Plated Brass
PG7	23150.9	23230.9	23060.9	23000.9
PG9	23151.9	23231.9	23061.9	23001.9
PG11	23152.9	23232.9	23062.9	23002.9
PG13.5	23153.9	23233.9	23063.9	23003.9
PG16	23154.9	23234.9	23064.9	23004.9
PG21	23155.9	23235.9	23065.9	23005.9
PG29	23156.9	23236.9	23066.9	23006.9
PG36	23157.9	23237.9		
PG42	23158.9			
PG48	23159.9			

	Solid Insert (Drill Your Own)		
	Black Plastic	Metal (NPB)	Drillable Area
PG7		20920.6	call
PG9	20921.1	20921.6	(10) 0.39"
PG11	20922.1	20922.6	(11) 0.43"
PG13.5	20923.1	20923.6	(13) 0.51"
PG16	20924.1	20924.6	(16) 0.63"
PG21	20925.1	20925.6	(21) 0.83"
PG29	20926.1	20926.6	(28) 1.10"

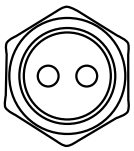
Add O-Ring to Plastic

Drilling Instructions

1. Cool insert to 45°F (7°C)
2. Place cord grip & insert in a vise or holding fixture with the threaded side facing drill
3. Cool insert with air or water during drilling
4. Maximum drill speed of 800 rpm
5. Minimum spacing between holes and or shell (1mm) 0.38"



1-3 Hole Cord Grips



Number of Wire Cavities	Part Numbers: Black Plastic PA	Part Numbers: Metal NBP	PG Thread size thread	Hole Size (mm)	Hole Size Inch	# of A Holes	Hole Size (mm)	Hole Size Inch	# of B Holes	Hole Size (mm)	Hole Size Inch
1	21305.1	21305.6	9	(3.0)	0.118						
	21318.1	21318.6	11	(3.0)	0.118						
	21306.1	21306.6	9	(4.0)	0.157						
	21319.1	21319.6	11	(4.0)	0.157						
	21357.1	21357.6	16	(4.0)	0.157						
	21307.1	21307.6	9	(5.0)	0.197						
	21320.1	21320.6	11	(5.0)	0.197						
	21358.1	21358.6	16	(5.0)	0.197						
	21339.1	21339.6	13.5	(8.0)	0.315						
	21359.1	21359.6	16	(8.0)	0.315						
	21396.1	21396.6	21	(16.0)	0.630						
	21446.1	21446.6	29	(16.0)	0.630						
	21308.1	21308.6	9	(1.2)	0.047						
2	21321.1	21321.6	11	(2.3)	0.091						
	21309.1	21309.6	9	(3.0)	0.118						
	21322.1	21322.6	11	(3.0)	0.118						
	21340.1	21340.6	13.5	(3.0)	0.118						
	21310.1	21310.6	9	(4.0)	0.157						
	21323.1	21323.6	11	(4.0)	0.157						
	21360.1	21360.6	16	(4.0)	0.157						
	21398.1	21398.6	21	(4.5)	0.177						
	21324.1	21324.6	11	(5.0)	0.197						
	21341.1	21341.6	13.5	(5.0)	0.197						
	21325.1	21325.6	11	(6.0)	0.236						
	21342.1	21342.6	13.5	(6.0)	0.236						
	21361.1	21361.6	16	(6.0)	0.236						
	21362.1	21362.6	16	(8.0)	0.315						
	21399.1	21399.6	21	(8.0)	0.315						
	21400.1	21400.6	21	(9.0)	0.354						
	21447.1	21447.6	29	(11.0)	0.433						
	21448.1	21448.6	29	(13.0)	0.512						
	21481.1	21481.6	36	(15.0)	0.591						
	21376.1	21376.6	16	Combinations *		1	(3.0)	0.118	1	(8.0)	0.315
	21377.1	21377.6	16	Combinations *		1	(3.0)	0.118	1	(9.0)	0.354
	21381.1	21381.6	16	Combinations *		1	(6.0)	0.236	1	(8.0)	0.315
	21415.1	21415.6	21	Combinations *		1	(7.0)	0.276	1	(10.5)	0.413
	21416.1	21416.6	21	Combinations *		1	(8.5)	0.335	1	(12.0)	0.472
	21465.1	21465.6	29	Combinations *		1	(12.0)	0.472	1	(13.0)	0.512
	21467.1	21467.6	29	Combinations *		1	(6.5)	0.256	1	(17.0)	0.669
	21471.1	21471.6	29	Combinations *		1	(9.0)	0.354	1	(15.0)	0.591
	21493.1	21493.6	36	Combinations *		1	(11.0)	0.433	1	(21.0)	0.827
	21494.1	21494.6	36	Combinations *		1	(12.5)	0.492	1	(16.5)	0.650
	21495.1	21495.6	36	Combinations *		1	(13.0)	0.512	1	(16.5)	0.650
	21496.1	21496.6	36	Combinations *		1	(14.0)	0.551	1	(17.0)	0.669
3	21343.1	21343.6	13.5	(2.0)	0.079						
	21311.1	21311.6	9	(3.0)	0.118						
	21326.1	21326.6	11	(3.0)	0.118						
	21344.1	21344.6	13.5	(3.0)	0.118						
	21364.1	21364.6	16	(3.0)	0.118						
	21327.1	21327.6	11	(4.0)	0.157						
	21345.1	21345.6	13.5	(4.0)	0.157						
	21346.1	21346.6	13.5	(5.3)	0.209						
	21365.1	21365.6	16	(7.0)	0.276						
	21401.1	21401.6	21	(7.0)	0.276						
	21402.1	21402.6	21	(9.0)	0.354						
	21482.1	21482.6	36	(10.0)	0.394						
	21449.1	21449.6	29	(11.0)	0.433						
	21351.1	21351.6	13.5	Combinations *		1	(3.0)	0.118	2	(6.0)	0.236
	21353.1	21353.6	13.5	Combinations *		2	(5.0)	0.197	1	(5.5)	0.217
	21378.1	21378.6	16	Combinations *		1	(3.0)	0.118	2	(8.0)	0.315
	21379.1	21379.6	16	Combinations *		1	(5.0)	0.197	2	(6.0)	0.236
	21382.1	21382.6	16	Combinations *		2	(5.0)	0.197	1	(6.0)	0.236
	21383.1	21383.6	16	Combinations *		2	(6.0)	0.236	1	(7.0)	0.276
	21384.1	21384.6	16	Combinations *		2	(6.0)	0.236	1	(8.0)	0.315
	21414.1	21414.6	21	Combinations *		1	(6.0)	0.236	2	(9.0)	0.354
	21473.1	21473.6	29	Combinations *		2	(6.5)	0.256	1	(10.0)	0.394

* Combination = more than one diameter size hole

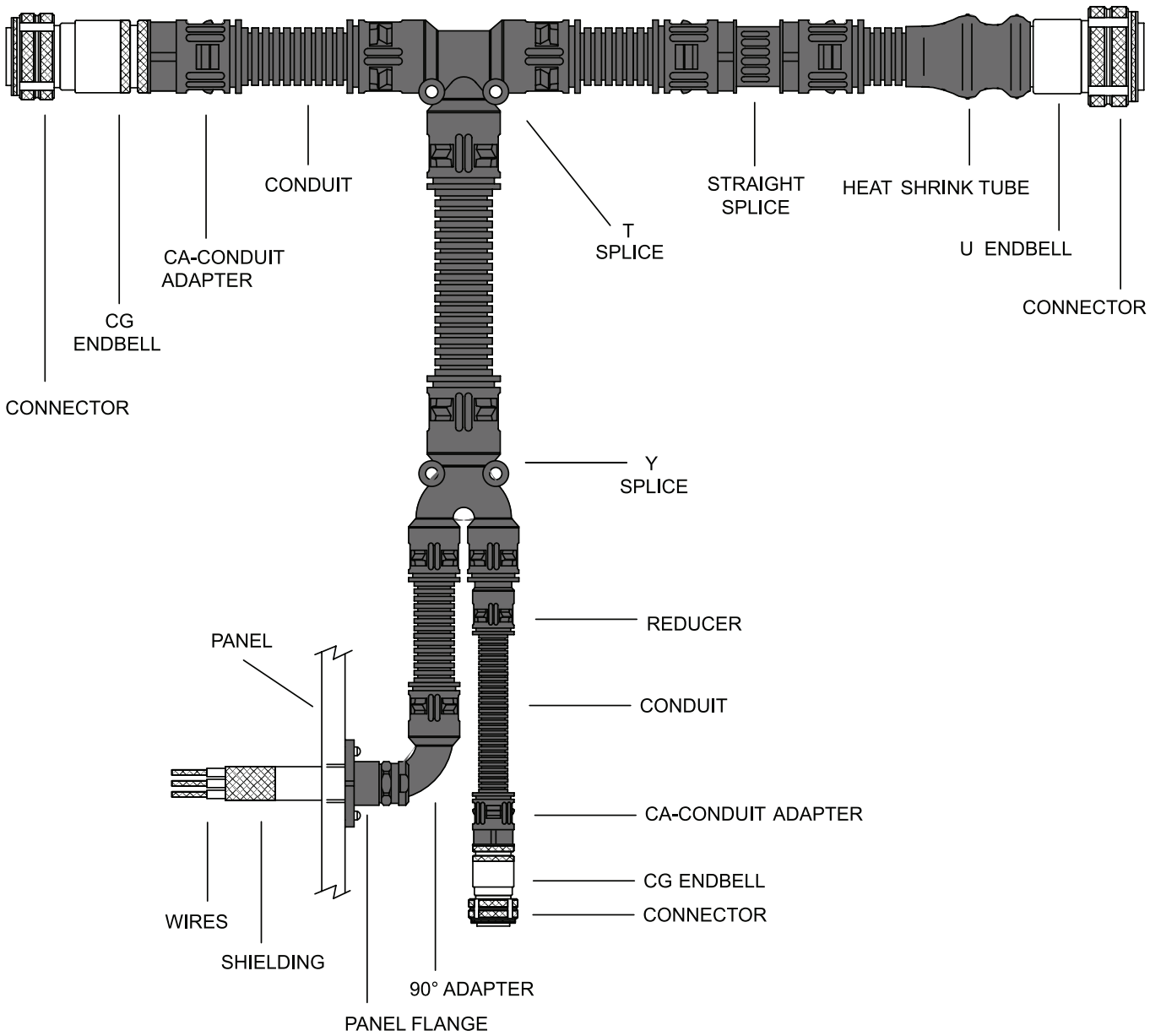
4-15 Hole Cord Grips

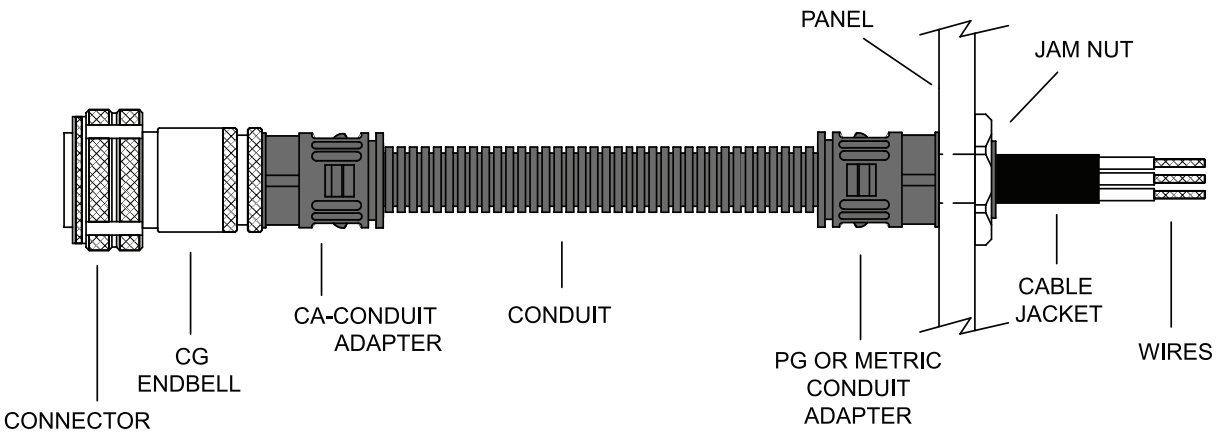
Number of Wire Cavities	Part Numbers: Black Plastic PA	Part Numbers: Metal NBP	PG Thread size thread	Hole Size (mm)	Hole Size Inch	# of A Holes	Hole Size (mm)	Hole Size Inch	# of B Holes	Hole Size mm	Hole Size Inch
4	21312.1	21312.6	9	(1.4)	0.055						
	21328.1	21328.6	11	(1.5)	0.059						
	21313.1	21313.6	9	(3.0)	0.118						
	21347.1	21347.6	13.5	(3.0)	0.118						
	21366.1	21366.6	16	(4.0)	0.157						
	21403.1	21403.6	21	(5.0)	0.197						
	21451.1	21451.6	29	(5.5)	0.217						
	21367.1	21367.6	16	(6.0)	0.236						
	21404.1	21404.6	21	(6.0)	0.236						
	21405.1	21405.6	21	(6.5)	0.256						
	21406.1	21406.6	21	(8.0)	0.315						
	21452.1	21452.6	29	(8.0)	0.315						
	21453.1	21453.6	29	(9.0)	0.354						
	21450.1	21450.6	29	(10.0)	0.394						
	21483.1	21483.6	36	(10.2)	0.402						
	21484.1	21484.6	36	(11.5)	0.453						
	21485.1	21485.6	36	(13.0)	0.512						
	21354.1	21354.6	13.5	Combinations *		2	(3.0)	0.118	1	(6.5)	0.256
	21385.1	21385.6	16	Combinations *		3	(4.0)	0.157	1	(9.0)	0.354
	21419.1	21419.6	21	Combinations *		2	(6.0)	0.236	2	(8.0)	0.315
	21329.1	21329.6	11	(3.5)	0.138						
5	21455.1	21455.6	29	(8.0)	0.315						
	21456.1	21456.6	29	(9.0)	0.354						
	21454.1	21454.6	29	(10.0)	0.394						
	21486.1	21486.6	36	(11.5)	0.453						
	21420.1	21420.6	21	Combinations*		2	(7.0)	0.276	3	(7.0)	0.276
	21477.1	21477.6	29	Combinations*		4	(5.5)	0.217	1	(8.0)	0.315
6	21330.1	21330.6	11	(2.0)	0.079						
	21331.1	21331.6	11	(2.5)	0.098						
	21348.1	21348.6	13.5	(3.5)	0.138						
	21368.1	21368.6	16	(4.0)	0.157						
	21407.1	21407.6	21	(4.0)	0.157						
	21408.1	21408.6	21	(5.0)	0.197						
	21409.1	21409.6	21	(5.5)	0.217						
	21457.1	21457.6	29	(6.0)	0.236						
	21410.1	21410.6	21	(6.5)	0.256						
	21458.1	21458.6	29	(8.0)	0.315						
	21475.1	21475.6	29	Combinations *		3	(7.0)	0.276	3	(8.0)	0.315
7	21332.1	21332.6	11	(1.5)	0.059						
	21369.1	21369.6	16	(2.0)	0.079						
	21459.1	21459.6	29	(7.0)	0.276						
	21487.1	21487.6	36	(9.0)	0.354						
	21424.1	21424.6	21	Combinations *		6	(4.0)	0.157	1	(7.0)	0.276
	21479.1	21479.6	29	Combinations *		4	(6.0)	0.236	3	(8.5)	0.335
8	21349.1	21349.6	13.5	(1.5)	0.059						
	21411.1	21411.6	21	(3.0)	0.118						
	21412.1	21412.6	21	(4.0)	0.157						
	21412.1	21412.6	21	(5.0)	0.197						
	21460.1	21460.6	29	(5.5)	0.217						
	21488.1	21488.6	36	(8.0)	0.315						
	21489.1	21489.6	36	(9.0)	0.354						
9	21333.1	21333.6	11	(1.5)	0.059						
	21370.1	21370.6	16	(3.0)	0.118						
10	21350.1	21350.6	13.5	(2.0)	0.079						
	21461.1	21461.6	29	(6.0)	0.236						
11	21490.1	21490.6	36	(8.0)	0.315						
12	21462.1	21462.6	29	(5.3)	0.209						
13	21491.1	21491.6	36	(7.0)	0.276						
15	21492.1	21492.6	36	(5.0)	0.197						

* Combination = more than one diameter size hole

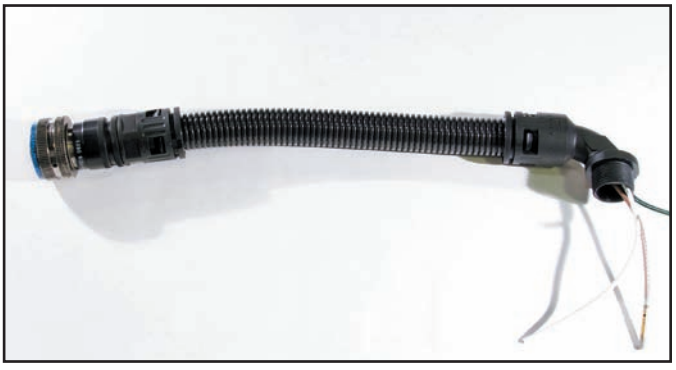
Conduit Assemblies

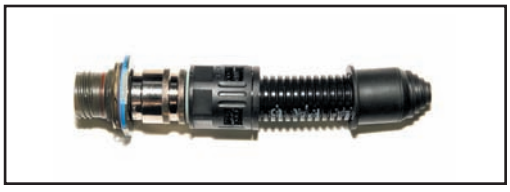
Complex Assembly - FLEXAquick System

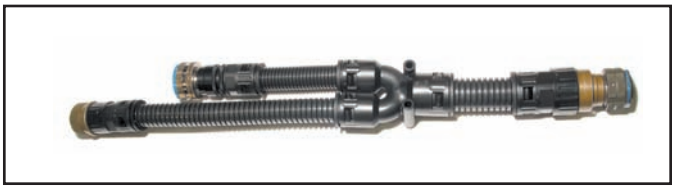




Finished Products

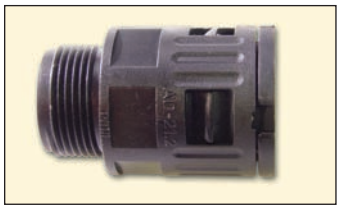






Conduits

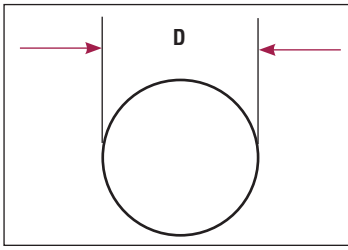
Straight PG Adapters



Externally threaded PG Adapters are used to attach conduit directly to a box or panel for installations that will not need to be disconnected frequently. Panel Seals prevent dust and fluids from getting inside. Jam nuts simplify the attachment to the panel without having to tap pre-threaded panel holes.

		Conduit Code								
		07	10	12	14	17	23	29	36	48
		Trade Size								
		AD10.0	AD13.0	AD15.8	AD18.5	AD21.2	AD28.5	AD34.5	AD42.5	AD54.5
PG Thread	7	5020.026.207	5020.027.201							
	9	5020.027.202	5020.026.209							
	11	5020.027.203	5020.027.204	5020.026.211						
	13.5	5020.027.205	5020.027.206	5020.027.207	5020.026.213	5020.027.209				
	16			5020.027.210	5020.026.214	5020.026.216	5020.027.208			
	21						5020.026.221			
	29							5020.026.229		
	36								5020.026.236	
	48									5020.026.248

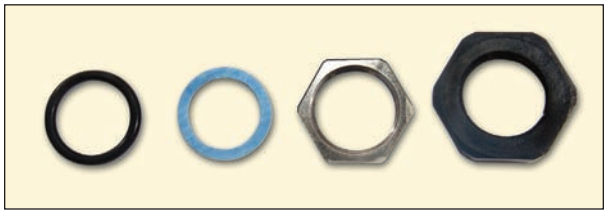
Right Angle PG Adapters



	Panel Cutouts D +/-(0.2) .008	
	(mm)	Inch
PG7	(13.0)	0.512
PG9	(15.7)	0.618
PG11	(19.0)	0.748
PG13.5	(21.0)	0.827
PG16	(23.0)	0.906
PG21	(28.8)	1.134
PG29	(37.5)	1.476
PG36	(47.5)	1.870
PG48	(59.8)	2.354

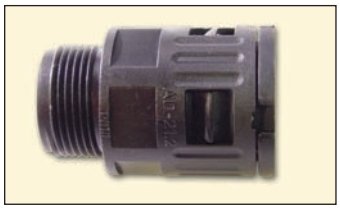
		Conduit Code								
		07	10	12	14	17	23	29	36	48
		Trade Size								
		AD10.0	AD13.0	AD15.8	AD18.5	AD21.2	AD28.5	AD34.5	AD42.5	AD54.5
PG Thread	7	5020.028.207								
	9		5020.028.209							
	11		5020.029.211	5020.028.211						
	13.5		5020.029.213		5020.028.213					
	16					5020.028.216				
	21						5020.028.221			
	29							5020.028.229		
	36								5020.028.236	
	48									5020.028.248

Seal and Jam Nuts PG



		Seals		Nuts	
		O-Rings	Flat Gaskets	Metal	Plastic
PG Thread	7	0330.000.007	0331.000.007	0530.000.007	0310.000.007
	9	0330.000.009	0331.000.009	0530.000.009	0310.000.009
	11	0330.000.011	0331.000.011	0530.000.011	0310.000.011
	13	0330.000.013	0331.000.013	0530.000.013	0310.000.013
	16	0330.000.016	0331.000.016	0530.000.016	0310.000.016
	21	0330.000.021	0331.000.021	0530.000.021	0310.000.021
	29	0330.000.029	0331.000.029	0530.000.029	0310.000.029
	36	0330.000.036	0331.000.036	0530.000.036	0310.000.036
	48	0330.000.048	0331.000.048	0530.000.048	0310.000.048

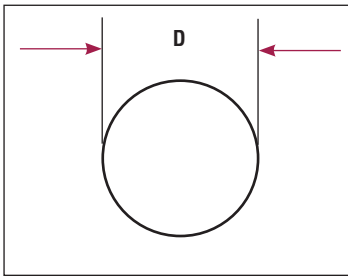
Straight Metric Adapters



Now a European Standard. These externally threaded Metric Adapters are used to attach conduit directly to a box or panel for installations that will not need to be disconnected frequently. Panel Seals prevent dust and fluids from getting inside. Jam nuts simplify the attachment to the panel without having to tap pre-threaded panel holes.

		Conduit Code							
		07	10	12	17	23	29	36	48
		Trade Size							
		AD10.0	AD13.0	AD15.8	AD21.2	AD28.5	AD34.5	AD42.5	AD54.5
Metric Thread	M10x1.5	5020.037.210							
	M12x1.5	5020.065.203	5020.037.212						
	M16X1.5		5020.065.205	5020.037.216					
	M20X1.5			5020.065.207	5020.037.220				
	M25X1.5				5020.065.209	5020.037.225			
	M32X1.5					5020.065.211	5020.037.232		
	M40X1.5						5020.037.238	5020.037.240	
	M50X1.5							5020.037.245	5020.037.250
	M63X1.5								5020.037.236

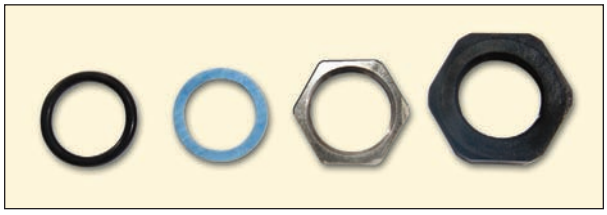
Right Angle Metric Adapters



	Panel Cutouts D +/-(0.2) .008	
	(mm)	Inch
M10x1.5	(10.3)	0.406
M12x1.5	(12.3)	0.484
M16x1.5	(16.3)	0.642
M20x1.5	(20.3)	0.799
M25x1.5	(25.3)	0.996
M32x1.5	(32.3)	1.272
M40x1.5	(40.4)	1.591
M50x1.5	(50.4)	1.984
M63x1.5	(63.4)	2.496

		Conduit Code							
		07	10	12	17	23	29	36	48
		Trade Size							
		AD10.0	AD13.0	AD15.8	AD21.2	AD28.5	AD34.5	AD42.5	AD54.5
Metric Thread	M10x1.5	5020.064.210							
	M12x1.5		5020.064.212						
	M16X1.5		5020.036.216	5020.064.216					
	M20X1.5			5020.036.220	5020.064.220				
	M25X1.5				5020.036.225	5020.064.225			
	M32X1.5					5020.036-232	5020.064.232		
	M40X1.5						5020.036.240	5020.064.240	
	M50X1.5							5020.036.250	5020.064.250
	M63X1.5								5020.036.263

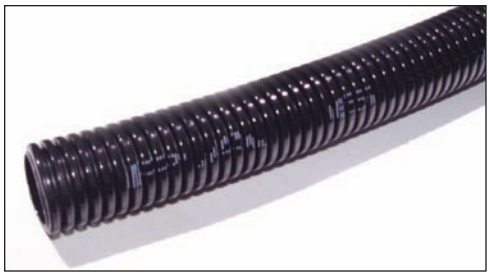
Seal and Jam Nuts Metric

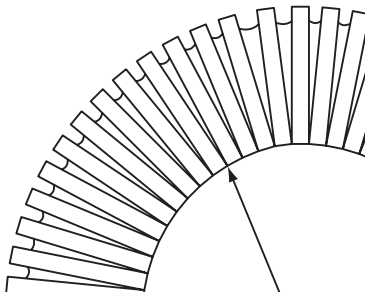


		Seals		Nuts	
		O-Rings	Flat Gaskets	Metal	Plastic
Metric Thread	M10x1.0	0330.001.010	0333.000.010	0531.000.010	0309.000.210
	M12x1.5	0330.001.012	0333.000.012	0531.000.012	0309.000.212
	M16X1.5	0330.001.016	0333.000.016	0531.000.016	0309.000.216
	M20X1.5	0330.001.020	0333.000.020	0531.000.020	0309.000.220
	M25X1.5	0330.001.025	0333.000.025	0531.000.025	0309.000.225
	M32X1.5	0330.001.032	0333.000.032	0531.000.032	0309.000.232
	M40X1.5	0330.001.040	0333.000.040	0531.000.040	0309.000.240
	M50X1.5	0330.001.050	0333.000.050	0531.000.050	0309.000.250
	M63X1.5	0330.001.063	0333.000.063	0531.000.063	0309.000.263

Conduits – PA6

High Impact Resistance in Cold, Flexible

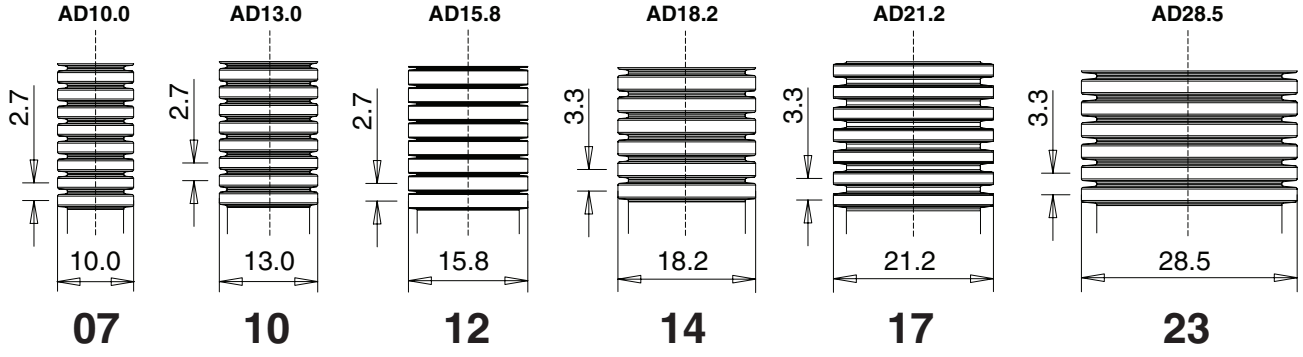




Heavy-duty cable conduits are manufactured using modified polyamides that are free of halogen and cadmium. These impact resistant conduits are rugged, easy to install and provide excellent resistance to UV rays and environmental corrosion. They are UL recognized: file # E86359. Flammability rating: UL94V0
Temperature range:
-58°F to +221°F; short term +302°F
(-50°C to +105°C; short term +150°C)

Part Number	Code	Trade Size	Inches (mm) d1	Inches (mm) d2	Bend Radius R PA6 Static	Bend Radius R PA6 Dynamic
0233.202.006	07	AD10.0	(6.5) 0.256	(10.0) 0.394	(13.0) 0.512	(35.0) 1.378
0233.202.010	10	AD13.0	(10.0) 0.394	(13.0) 0.512	(20.0) 0.787	(45.0) 1.772
0233.202.012	12	AD15.8	(12.0) 0.472	(15.8) 0.622	(35.0) 1.378	(55.0) 2.165
0233.202.014	14	AD18.5	(14.3) 0.563	(18.2) 0.717	(40.0) 1.575	(65.0) 2.559
0233.202.016	17	AD21.2	(16.5) 0.650	(21.2) 0.835	(45.0) 1.772	(75.0) 2.953
0233.202.023	23	AD28.5	(23.0) 0.906	(28.5) 1.122	(55.0) 2.165	(100.0) 3.937
0233.202.029	29	AD34.5	(29.0) 1.142	(34.5) 1.358	(65.0) 2.559	(120.0) 4.724
0233.202.036	36	AD42.5	(36.0) 1.417	(42.5) 1.673	(90.0) 3.543	(150.0) 5.906
0233.202.048	48	AD54.5	(48.0) 1.890	(54.5) 2.146	(100.0) 3.937	(190.0) 7.480

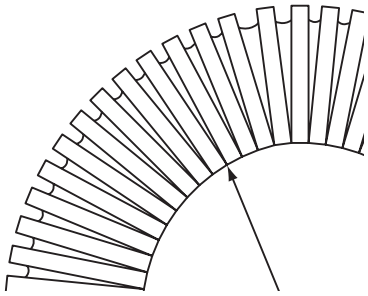
PA6 & PA12 Conduit Dimension AD10.0 to AD28.5



Tubing Cutter up to AD34.5 (07 to 29)

0433.000.010

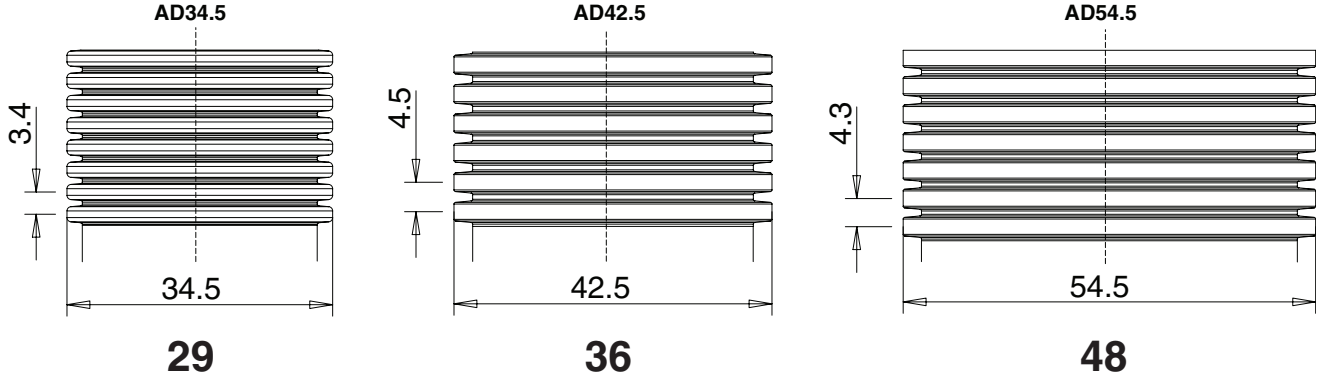
High Alternate Bending Strength, Highly Flexible



Heavy-duty cable conduits are manufactured using modified polyamides that are free of halogen and cadmium. These impact resistant conduits are rugged, easy to install and provide excellent resistance to UV rays and environmental corrosion.
Flammability rating: UL94V2
Temperature range:
-40°F to +239°F; short term +302°F
(-40°C to +115°C; short term +150°C)

Part Number	Code	Trade Size	Inches (mm) d1	Inches (mm) d2	Bend Radius R PA12 Static	Bend Radius R PA12 Dynamic
0236.202.006	07	AD10.0	(6.5) 0.256	(10.0) 0.394	(13.0) 0.512	(35.0) 1.378
0236.202.010	10	AD13.0	(10.0) 0.394	(13.0) 0.512	(15.0) 0.591	(45.0) 1.772
0236.202.012	12	AD15.8	(12.0) 0.472	(15.8) 0.622	(22.0) 0.866	(55.0) 2.165
0236.202.014	14	AD18.5	(14.3) 0.563	(18.2) 0.717	(27.0) 1.063	(65.0) 2.559
0236.202.016	17	AD21.2	(16.5) 0.650	(21.2) 0.835	(35.0) 1.378	(75.0) 2.953
0236.202.023	23	AD28.5	(23.0) 0.906	(28.5) 1.122	(45.0) 1.772	(100.0) 3.937
0236.202.029	29	AD34.5	(29.0) 1.142	(34.5) 1.358	(50.0) 1.969	(120.0) 4.724
0236.202.036	36	AD42.5	(36.0) 1.417	(42.5) 1.673	(80.0) 3.150	(150.0) 5.906
0236.202.048	48	AD54.5	(48.0) 1.890	(54.5) 2.146	(100.0) 3.937	(190.0) 7.480

PA6 & PA12 Conduit Dimension AD34.5 to AD54.5



Tubing Cutter for AD21.2 to AD54.5 (17 to 48)

0433.000.011

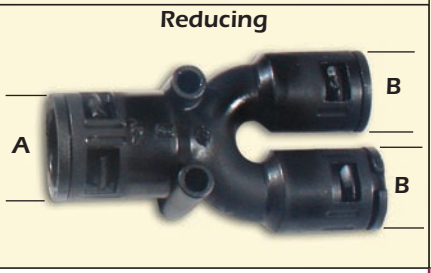
Conduits

Flexa Transitions

Splices are used to join two lengths of conduit. They can be used to make conduit harnesses longer. Reducers are used to go from a larger adapter to smaller conduit.

A Conduit Code	Trade Size	Straight Splice	Reducer		
		Part #	Part #	B Outlet	Trade Size
10	AD13.0	-	-		
		-	-		
12	AD15.8	-	-		
		-	-		
17	AD21.2	**5602.021.221**	**5601.015.221**	12	AD15.8
		-	-		
23	AD28.5	**5602.028.228**	**5601.015.228**	12	AD15.8
		-	**5601.021.228**	17	AD21.2
29	AD34.5	**5602.034.234**	**5601.015.234**	12	AD15.8
		-	**5601.021.234**	17	AD21.2
		-	**5601.028.234**	23	AD28.5
36	AD42.5	**5602.042.242**	**5601.034.242**	29	AD34.5
48	AD54.5	**5602.054.254**	**5601.042.254**	36	AD42.5
		-	**5601.021.254**	17	AD21.2

Y and T Adapters are used to branch off or consolidate conduits.
The inlet side "A" can be larger (more popular) or the same size as the outlet side "B".



A Conduit Code	Trade Size	Y Splice			T Splice		
		Part #	B Outlet	Trade Size	Part #	B Outlet	Trade Size
10	AD13.0	**5020.032.201**	07	AD10.0		-	
		5020.032.202	10	AD13.0		-	
12	AD15.8	**5020.032.203**	10	AD13.0	**5020.041.208**	12	AD15.8
		5020.032.204	12	AD15.8		-	
17	AD21.2	**5020.032.206**	12	AD15.8	**5020.041.201**	17	AD21.2
		-				-	
23	AD28.5	**5020.032.208**	17	AD21.2	**5020.041.202**	23	AD28.5
		-				-	
29	AD34.5	**5020.032.209**	23	AD28.5	**5020.041.210**	23	AD28.5
		-			**5020.041.211**	29	AD34.5
		-			-		
36	AD42.5	**5020.032.210**	29	AD34.5	**5020.041.212**	36	AD42.5
48	AD54.5	**5020.032.211**	36	AD42.5	**5020.041.213**	48	AD54.5
		-			-		

Potting Guidelines for Cable Assemblies:

1. There is a wide range of potting compounds available in the market. We set out to select a concise group of potting compounds for general purpose use with electrical connectors. Each of the recommended materials has been tested by PEI-Genesis. If a more optimized potting compound is needed please contact us. One of our application engineers will gladly help you find the right potting compound for your design.
2. We recommend getting all of the cables ready and positioned before potting – especially if a quick cure speed potting compound is used. Fixtures, clamps or racks will help position the connector and cable while the potting compound hardens.
3. Adhesion can be improved by either cleaning surfaces with rubbing alcohol or roughening surfaces with sand paper.
4. When using a mixing nozzle insert it as far as possible into the endbell and fill upward. This will prevent air bubbles from forming beneath the potting compound.
5. Heat can be used to accelerate the hardening time of potting compounds. Be careful not to overheat them, especially if you are using a hot air gun or torch. Gentle heat (2 times room temperature) will significantly accelerate the hardening time.
6. For assemblies with heat shrink boots we recommend waiting until the potting compound working time has passed before recovering the heat shrink boot. Otherwise, the compound may overheat.
7. Clean up uncured potting compounds with rubbing alcohol.

		Potting Compound Types			
		DP100FR-XXML	720UR-XXML	3015C-XXML	3125-XXML
Connector Series	Sure Seal	X	X		
	Trident				
	97 Series	X		X	
	MIL-DTL-5015 & P-lok	X	X	X	X
	VG 95 234 & Bayonet	X	X	X	X
	MIL-DTL-26482 & 62GB	X	X	X	X
	MIL-DTL-38999	X	X	X	X
	D-Sub	X		X	
Material Information	Work Life	4-8 Min	5-6 Min	6-10 Min	15 -20 Min
	Fixture Time	15-20 Min	1-2 Hours	15-20 Min	45-60 Min
	Viscosity	120,000 cps	4,000 cps	12,000 cps	14,000 cps
	Flows Like	Ketchup	Light Syrup	Honey	Honey
	Temperature Range	-67° to +180°F (-55° to +82°C)	-65° to + 200°F (-53° to + 93°C)	-67° to +250°F (-55° to +121°C)	-40° to +225°F (-40° to +107°C)
	Color	Beige	Straw	Clear	Amber
	Shore D Hardness	87	78	82	75
	Flame Resistant per UL94	E61941	-	-	-
	DOT UN/NA #	-	-	2735*	2735*
Package Sizes	30ml Trial Size			X	X
	50ml	X	X	X	X
	250ml/200ml**	X**		X	X
	400ml	X		X	X

* Special Shipping Requirements may apply, call for more information.

** 200ml only

Potting Compounds & Tools

DP100 FR – Flame Resistant

Working Time: 5 to 8 minutes
Fixture Time: 15 to 20 minutes
Color: Beige
Mix Ratio: 1 to 1
UL Rating: UL 94-V0 (File Number E61941)

Part Numbers:

Package Type	Part Number	Mixing Nozzle	Applicator Tool
50 ml	DP100FR-50ML	300-028 or 300-026	DK-104 or Caulk Adapter
200 ml	DP100FR-200ML	300-006	EXT-250/MNLGUN
400 ml	DP100FR-400ML	300-006	VBM-400X

PEI Comments: This epoxy is recommended for applications where the UL 94-V0 flame test is required. It is not as thick as the S310 and has a moderate ability to flow between wires and into gaps. It is thicker than the 3015C and 3030 epoxies. We recommend that users pay extra attention when using it, especially in tight wire bundles. It is important to make sure that potting nozzles are fully inserted to limit air bubbles beneath the epoxy. Users may also want to move the nozzle around while potting to make sure the entire wire bundle is encapsulated.

720UR – Low Viscosity Polyurethane

Working Time: 5 to 6 minutes
Fixture Time: 1 - 2 hours
Color: Straw
Mix Ratio: 1 to 1
Operating Temperature: -65° to +200°F (-53° to +93°C)

Part Numbers:

Package Type	Part Number	Mixing Nozzle	Applicator Tool
50 ml	720UR-50ML	300-026	DK-104 or Caulk Adapter

PEI Comments: 720UR has a very low viscosity for a potting compound. That makes it a great choice for prototypes and low volume production since it is easier to pour into endbells than most epoxies. It flows well and easily fills gaps between wires. 720UR bonds well to PVC and Polyurethane wires and cables as well as a wide variety of thermoplastics, metals, and connector insulators.

3015C – Fast Cure Epoxy

Working Time: 6 to 10 minutes
Fixture Time: 15 to 20 minutes
Color: Clear
Mix Ratio: 1 to 1
Temperature Range: -67° to +250°F (-55° to +121°C)
DOT UN/NA #: 2735*

Part Numbers:

Package Type	Part Number	Mixing Nozzle	Applicator Tool
Trial Size: 30 ml - Dual Syringe	3015C-30ML	Not required	Not required
50 ml	3015C-50ML	300-028 or 300-026	DK-104 or Caulk Adapter
250 ml	3015C-250ML	300-006	EXT-250/MNLGUN
400 ml	3015C-400ML	300-006	VBM-400X

PEI Comments: This is a great epoxy for small jobs since it flows well and hardens quickly. It may harden a little too fast if working time is needed between applications or if there is a dense wire bundle. Our advice for first time users is to get some extra mixing nozzles and to set up groups of cables in fixtures prior to potting.

* Special Shipping Requirements may apply, call for more information.

3125 – Medium Cure Speed Epoxy

Working Time: 15 to 25 minutes
Fixture Time: 45 to 60 minutes
Color: Amber
Mix Ratio: 1 to 1
Temperature Range: -40° to +225°F (-40° to +107°C)
DOT UN/NA #: 2735*

Part Numbers:

Package Type	Part Number	Mixing Nozzle	Applicator Tool
Trial Size: 30 ml - Dual Syringe	3125-30ML	Not required	Not required
50 ml	3125-50ML	300-028 or 300-026	DK-104 or Caulk Adapter
250 ml	3125-250ML	300-006	EXT-250/MNLGUN
400 ml	3125-400ML	300-006	VBM-400X

PEI Comments: 3125 is recommended for general purpose potting. It bonds well to plastics, metal and ceramics. It has a long enough working life to make it convenient for production or for applications where users need a little more working time. It flows well and does a good job of encapsulating small spaces and between wires. The longer working time also gives more time for air bubbles to work their way out before the epoxy hardens.

* Special Shipping Requirements may apply, call for more information.

50 ml Handgun Applicator Tools

50 ml Manual Handgun	DK-104
50 ml Caulking Gun Conversion Kit	DK-117
50 ml Pneumatic Handgun (not shown)	CBA-25/94

250 ml Handgun Applicator Tools

250 ml Manual Handgun	EXT-250/MNLGUN
250 ml Pneumatic Handgun (not shown)	TBA-250X

400 ml Handgun Applicator Tools

400 ml Manual Handgun	VBM-400X
400 ml Pneumatic Handgun (not shown)	VBA-400X

Static Mixers for 50 ml Cartridges

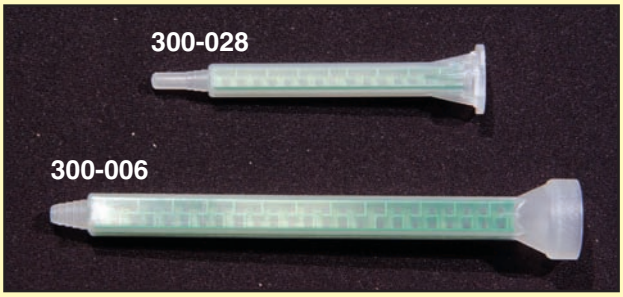
5.5mm x 16 Elements - Square Nozzle	300-028
5.3mm x 24 Elements - Square Nozzle	300-026

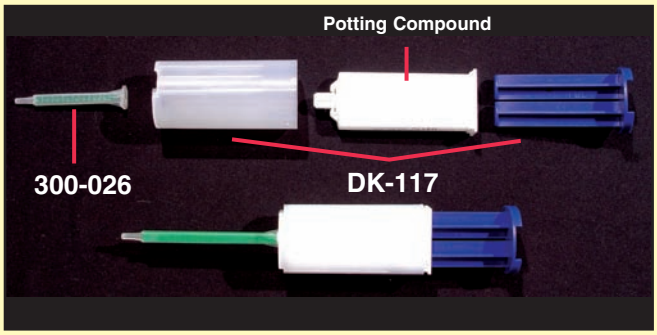
(not shown)

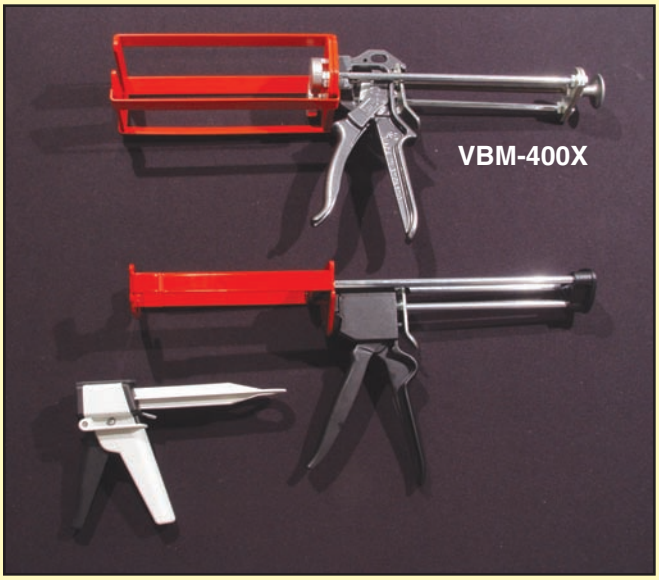
Static Mixers for 250 ml & 400 ml

w/Bell Opening

7.5mm x 24 Elements - Square Nozzle	300-006

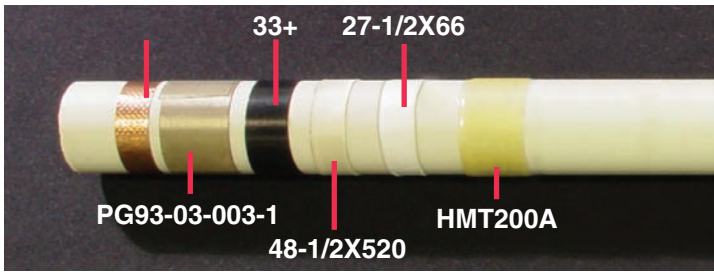






Tapes

There are a vast array of tapes available for many specialized applications. These are some of the most popular tape options for cable harnessing.



1245CU Tape*
Embossed Copper Foil Shielding and Grounding Tape

Color: Copper
Sealing: No
UL E17385

The 1245 tape is a flexible, soft copper tape that has been embossed to allow continuity through the acrylic adhesive. The tape is recommended for static applications with limited bending or flexing. Shielding effectiveness is 75dB to 85dB (30MHz to 1GHz). Drain wires can be soldered to this tape for ground connections between cables and connector shells.

PG93-03-003-1*
Flexible Polyester Tape Plated with Nickel over Copper

Color: Silver
Sealing: No

This is our preferred choice for EMI Shielding. It works well in both static and flexing applications. Shielding effectiveness is 85dB (10MHz to 10GHz). This tape can be used for grounding by carefully soldering drain wires or with the use of conductive adhesives.

33+ PVC Tape
PVC Electric Tape

Color: Black
Sealing: Yes
Temperature: 0°F (-18°C) to 220°F (105°C)
UL-E129200 CSA-LR48769

Scotch brand 33+ Super is an industry standard for all purpose insulating and splicing. It is rated to 600 volts and 220°F (105°C). Electrical Tape is often uses to bundle and seal cables. It conforms to irregular shapes, is tough and easy to apply. Install with at least two half lap layers for proper protection. 33+ is also used as a protective layer over self fusing tapes, split conduit and expandable sleeving.

48-1/2X520
PTFE Thread Sealing & Lubricating Tape

Color: White
Sealing: Yes
Temperature: -450°F (-268°C) to 400°F (204°C)

Series 48 tape is used to seal threaded endbells where O-Rings or other seals are not present. The PTFE tape not only fills the small voids in between the internal and external threads, but also provides a protective barrier against corrosion and the seizing up of threaded components. This tape has no adhesive but easily conforms to almost any thread. Simply wrap the externally threaded part multiple times (more for very large deep threads and less for fine shallow threads) to provide enough tape material to uniformly cover the threads and then thread the parts together.

27-1/2X66
High Strength Glass Cloth Tape

Color: White (printable)
Sealing: No
Temperature: up to 266°F (130°C)
UL-E17385 CSA-LR93411

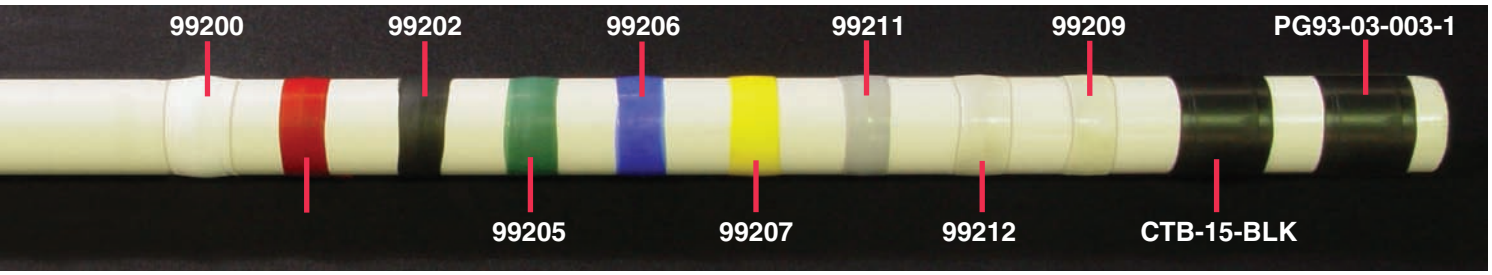
This is a high tensile strength tape (150lb/in (262N/10mm)) with a thermosetting rubber adhesive. It is typically used to wrap individual wires into cable-like bundles. This tape is often used under heat shrink tubing. The heat shrink provides protection against fluids and dirt, while the tape provides much more tensile strength than heat shrink alone. One half lap layer is sufficient for low voltage applications. For voltages up to 600V, we recommend a minimum of two half lap layers.

HMT200A
Hot Melt Tape

Color: Amber
Sealing: Yes
Temperature: -67°F (-55°C) to 221°F (105°C)

This is a heat activated adhesive used as a liner beneath heat shrink tubing or boots. It will improve both adhesion and fluid resistance. Cable surfaces should be free of dust or grease before application. For optimum performance we recommend that surfaces be cleaned and or roughened and then warmed slightly. Wrap a single layer of the tape tightly and with limited overlap. A soldering iron at a low temperature can be used to tack the tape in place. Then slide the heat shrink or boot in place. Use a heater to recover the heat shrink or boot and melt the tape. You should see some of the melted tape ooze out of the end of the heat shrink or boot. Allow the assembly to cool completely before bending or flexing.

* Most Popular



99200 Series
Silicone Self Fusing Tape

Color: Various (see below)
Sealing: Yes
Temperature: -65°F (-54°C) to 500°F (260°C)

Meets MIL-I-46852C Type II Standard

Self fusing tapes do not have an adhesive liner. Instead, they fuse to themselves. Silicone tape will stick to itself quickly and will completely fuse over 24 hours, so the tape is supplied on a clear plastic carrier strip. This tape can be stretched and half lap layered to form a water resistant compression seal around cables and endbells. It can also be used to build up cable diameters for additional flex relief or to make more gradual endbell-to-cable transitions. Silicone tape should be covered with either heat shrink tubing, a boot, or 2 layers of half lap Electrical Tape. It is easy to remove for repairs. Simply cut the tape off, repair the cable and rewrap.

99200	White	99207	Yellow
99201	Red	99211	Gray
99202	Black	99212	Clear
99205	Green	99209	Glow in the Dark
99206	Blue		

PG93-03-003-1*
Flexible Nickel over Copper Plated Polyester Shielding Fabric bonded to a Polyurethane Environmental Sealing Tape.

Color: Black
Sealing: Yes

This tape combines EMI shielding with environmental protection. The inner layer has a shielding effectiveness of 85dB (10MHz to 10GHz). The outer layer is made from black polyurethane and will resist fluids, dust and cuts. Simply wrap the cable and endbell with a half lap coverage pattern.

CTB-15-BLK
Heavy Duty Self Fusing Tape

Color: Black
Sealing: Yes
Temperature: Up to Temperature range:0°C)

Heavy duty self fusing tape is made from ethylene propylene rubber. It will fuse to itself in as little as 30 minutes and is supplied on a reinforced paper carrier that should be removed prior to application. The tape can be stretched up to 750% of its original length and will confirm to a wide variety of shapes. The CTB tape has a tough outer surface and can be left uncovered (unlike the Silicone Self Fusing Tape). It is recommended as an alternative for heat shrink tubing and boots for applications where the heat needed to recover heat shrink could cause damage or for applications with unusual shapes. The CTB tape can be easily removed by cutting it off and will not leave a residue. It is also resistant to ozone and ultra-violet light.

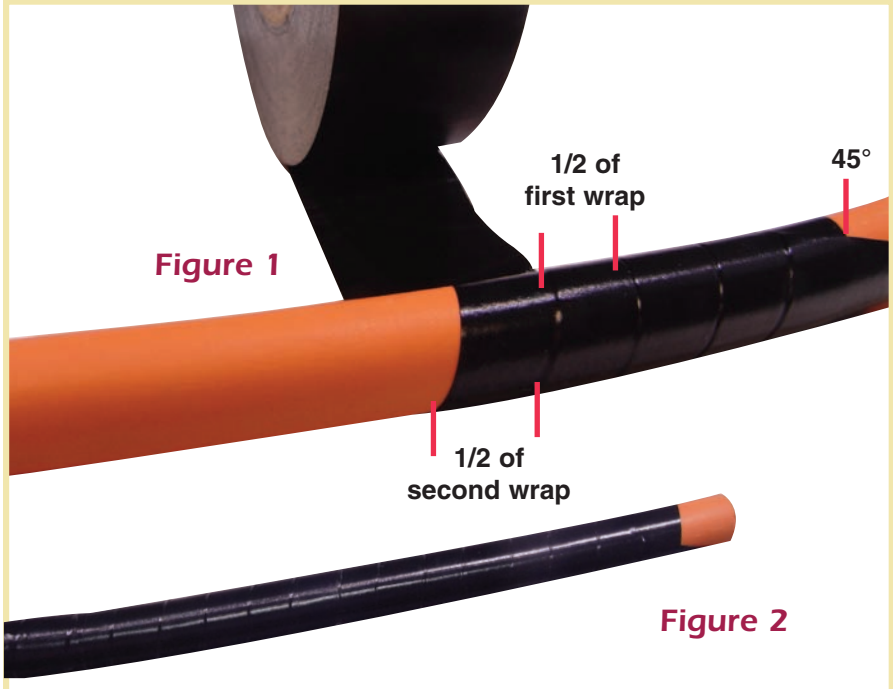


Figure 1

Figure 2

1. **Start tape on wire or cable at 45° angle.** (See Figure 1)
2. **Tightly overlap 1/2 of first wrap with 1/2 of second wrap, maintaining a smooth finish.** (See Figure 1)
3. **Continue over cable as needed** (See Figure 2)

* Most Popular

Terminals – Crimp and Seal Extreme

Adhesive Lined - Heat Shrink Tube

Wire Gauge	Ring Tongue Stud Sizes						
	6	8	10	1/4	5/16	3/8	1/2
22-18	30112	30113	30114	30115	30116	30117	-
16-14	30312	30313	30314	30315	30316	30317	-
12-10	30412	30413	30414	30415	30416	30417	30419

Wire Gauge	Ring Tongue Multi-Stud Sizes		Butt Splice	Bullets			
	2, 4, 6	6, 8, 10		.156 Male	.156 Female	.180 Male	.180 Female
22-18	3011MS	3011M	30130	30169	30179	30168	30178
16-14	3031MS	3031M	30330	30369	30379	30368	30378
12-10	-	3041M	30430	-	-	-	-

Wire Gauge	Forks and Spades Stud Sizes			Quick Connects			
	6	8	10	.187 Male	.187 Female	.250 Male	.250 Female
22-18	30122	30123	30124	30185	30195	30187	30197
16-14	30322	30323	30324	30385	30395	30387	30397
12-10	30422	30423	30424	-	-	30487	30497

COOL SEAL®
BY FTZ INDUSTRIES

New Environmentally Sealed Butt Splice

Seals without the use of Heat Guns or Torches! Patented Anaerobic Sealing Technology

Wire Gauge	Ring Tongue Sizes
22-18	33130
16-14	33330
12-10	33430

#94130 Racheted Crimp Tool

For Terminals shown above.

#99305 Crimp & Seal Standard Nylon Crimp Kit

Low cost option for non-extreme versions.

(Standard)

Lugs and Battery Connections

Standard Duty Lugs

Wire Gauge	Stud Sizes				
	10	1/4	5/16	3/8	1/2
8	91004	91005	91006	91007	91009
6	91014	91015	91016	91017	91019
4	91024	91025	91026	91027	91029
2		91035	91036	91037	91039
1		91045	91046	91047	91049
1/0		91055	91056	91057	91059
2/0		91065	91066	91067	91069
3/0		91075	91076	91077	91079
4/0		91085	91086	91087	91089

Seamless design for ultimate corrosion protection

Heavy Duty Power Lugs

Wire Gauge	Stud Sizes			
	1/4	5/16	3/8	1/2
8	91705	91706	91707	91709
6	91715	91716	91717	91719
4	91725	91726	91727	91729
1-2	91745	91746	91747	91749
1/0		91756	91757	91759
2/0		91766	91767	91769
3/0		91776	91777	91779
4/0		91786	91787	91789

Seamless design for ultimate corrosion protection

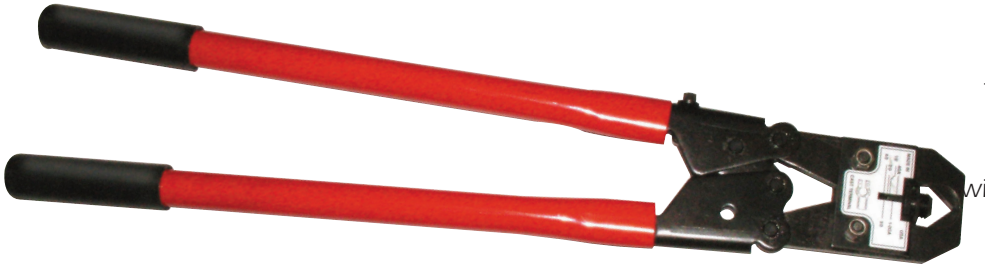
Correct Connect Battery Terminals

Wire Gauge	Straight		Elbows: Right		Elbows: Left	
	Negative	Positive	Negative	Positive	Negative	Positive
4	14128					
1-2	15143	15144				
1/0	15163	15164	15263	15264	15363	15364
2/0	15173	15174	15273	15274	15373	15374
3/0	15183	15184	15283	15284	15383	15384
4/0	15193	15194				

Cast lead clamp for corrosion resistance with copper crimp tube for reliability

Right

Left



#94297 Lug Tool

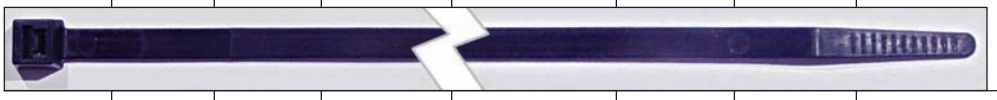
Tri-Form is a die-less tool that has over 50 settings and allows the user to crimp lugs and terminals with wire sizes from 8 AWG to 250 MCM cable. The crimp applies equal force to all three sides of the crimp.

Note: Background color in tables refers to crimp dies used in powered crimpers. Please call for more information.

Cable Ties

Standard Nylon Cable Ties

Standard Nylon Cable Ties are used extensively in electrical and electronic applications. They can be used inside potted endbells to provide excellent strain relief and to improve the environmental sealing capabilities by interrupting the leak path. Cable Ties are also good for bundling wires and cables, and securing cables in place.

Part Number	Type	Color	UV Resistant	Max Bundle Diameter inch(mm)	Width inch(mm)	Length inch(mm)	Loop Tensile Strength lbs (N)
93110	Standard	Natural	no	0.75 (19.1)	0.10 (2.5)	4.0 (101.6)	18 (80)
93210	Standard	Black	yes	0.75 (19.1)	0.10 (2.5)	4.0 (101.6)	18 (80)
93120	Standard	Natural	no	1.25 (31.8)	0.14 (3.6)	5.7 (144.8)	40 (178)
93220	Standard	Black	yes	1.25 (31.8)	0.14 (3.6)	5.7 (144.8)	40 (178)
93280	Heavy Duty	Black	yes	7.00 (177.8)	0.35 (8.9)	25.0 (635.0)	175 (778)
							
93320	Mounting #8 Hole	Natural	no	1.25 (31.8)	0.14 (3.6)	5.9 (149.9)	40 (178)
93440	Mounting #10 Hole	Black	yes	2.00 (50.8)	0.19 (4.8)	8.0 (203.2)	50 (222)

Nylon Locking Cable Tie Tools

94400 Tightening Tool Low Cost

GS2B High Quality Tightening

Metal Locking Ties

There are many uses for the Metal Locking Ties. They are typically used to attach connector dustcaps to cable assemblies. The stainless steel resists corrosion and stays secure in rugged environments. Just like the nylon cable ties listed above, they can also be used to affix or secure the cable harnesses to various mounting rails, brackets, or other support members in vehicles or industrial machines.

Part Number	Type	Color	UV Resistant	Max Bundle Diameter inch(mm)	Min Bundle Diameter inch(mm)	Width inch(mm)	Length inch(mm)	Loop Tensile Strength lbs (N)
93804	Standard	Silver	yes	2.00 (50.8)	0.50 (12.7)	0.18 (4.6)	8.00 (203.2)	200 (890)
93805	Heavy Duty	Silver	yes	2.00 (50.8)	0.50 (12.7)	0.30 (7.6)	8.00 (203.2)	450 (2000)

Metal Locking Tie Tools

HTMT Prototyping Tightening Tool

ST3MT Production Tightening Tool with cut off

TG70 Strap Wrench

The strap wrench is used to connect or disconnect coupling nuts in a confined space, or to tighten or loosen endbells without damaging the connector plating.

A strap wrench also increases torque, allowing you to more easily mate or unmate a connector pair. Substitute tools, such as a pipe wrench or pliers, should never be used because of the high probability of severe damage to the connector plating or the coupling mechanism.

TG69P Non-Marring Adjustable Endbell Pliers For Field Service

The TG69P pliers have resilient jaws and are used to tighten or remove endbells without damaging the connector plating. The pliers are adjustable and will accommodate all of the connector sizes in this catalog. Substitute tools, such as a pipe wrench or metal jaw pliers, should never be used due to the high probability of severe damage to the connector plating. Replacement jaws, Part No. G77015, are available.

600 Series Production System

The 600 Series is a complete system for the proper assembly and torquing of connector endbells. The system includes a bench mounted or hand-held torque wrench, plug and receptacle holders, and a range of endbell tightening tools. When used together, these tools provide the user with consistent endbell installations. Each item is shipped with detailed assembly instructions.

Endbell Tightening Kit

600-007

Bench Mounted Torque Wrench

Plug and Receptacle Holders

600B005-R

600B005-P

600D005-R

600D005-P

Size	MIL-DTL-5015 for MS310_, AIT, AIB, CB, CT		MIL-DTL-26482 for PT, PTS, MB, 62GB, MS311_, MS312_, MS347_ Trident, KPT, KPSE	
	Receptacles	Plugs	Receptacles	Plugs
8/8S	600B005-8R	600B005-8P	600D005-8R	600D005-8P
10S/SL	600B005-10R	600B005-10P	600D005-10R	600D005-10P
12/12S	600B005-12R	600B005-12P	600D005-12R	600D005-12P
14/14S	600B005-14R	600B005-14P	600D005-14R	600D005-14P
16/16S	600B005-16R	600B005-16P	600D005-16R	600D005-16P
18	600B005-18R	600B005-18P	600D005-18R	600D005-18P
20	600B005-20R	600B005-20P	600D005-20R	600D005-20P
22	600B005-22R	600B005-22P	600D005-22R	600D005-22P
24	600B005-24R	600B005-24P	600D005-24R	600D005-24P
28	600B005-28R	600B005-28P	-	-
32	600B005-32R	600B005-32P	-	-
36	600B005-36R	600B005-36P	-	-

Size	MIL-DTL-38999 Series I		MIL-DTL-38999 Series II		MIL-DTL-38999 Series III			
	Receptacles	Plugs	Receptacles	Plugs	Shell Size		Receptacles	Plugs
9	600F005-9R	600F005-9P	600FF005-8R	600FF005-8P	A	9	600H005-9R#	600H005-9P#
11	600F005-11R	600F005-11P	600FF005-10R	600FF005-10P	B	11	600H005-11R#	600H005-11P#
13	600F005-13R	600F005-13P	600FF005-12R	600FF005-12P	C	13	600H005-13R#	600H005-13P#
15	600F005-15R	600F005-15P	600FF005-14R	600FF005-14P	D	15	600H005-15R#	600H005-15P#
17	600F005-17R	600F005-17P	600FF005-16R	600FF005-16P	E	17	600H005-17R#	600H005-17P#
19	600F005-19R	600F005-19P	600FF005-18R	600FF005-18P	F	19	600H005-19R#	600H005-19P#
21	600F005-21R	600F005-21P	600FF005-20R	600FF005-20P	G	21	600H005-21R#	600H005-21P#
23	600F005-23R	600F005-23P	600FF005-22R	600FF005-22P	H	23	600H005-23R#	600H005-23P#
25	600F005-25R	600F005-25P	600FF005-24R	600FF005-24P	J	25	600H005-25R#	600H005-25P#

Add polarizations: N, A, B, C, D, E

Heat Tools and Heat Kits

Electric Power Heat Tools

North America:

Part #94502
2 Temperature
115VAC 750°F and 1100°F (400°C – 600°C)
Good for Light Tubing, Small To Medium Boots

Part #HSG115V650
Variable Temperature
115VAC 650°F – 900°F (344°C – 482°C)
High Air Flow Good for Large Boots

Europe:

Part #HL2010E
Variable Temperature
230-240VAC LCD Read Out 122°F – 1200°F (50°C – 650°C)
Good for Small Tubing to Large Boots

Butane Powered Heat Tools

Part #94900
Low Cost Torch up to 2400°F (1315°C)
Good for Small Heat Shrink Tubing and Crimp and Seal Terminals

Part #94700
Low Cost Flameless Heat Gun 1400°F (760°C)
Good for Small to Medium Heat Shrink Tubing
Part #94701 – Replacement Fuel Cell

Part #94940
High Output Flameless Heat Gun 1300°F (700°C)
Good for Medium to Large Heat Shrink Boots

Heat Tool Kits

Part #94907K Contains:
- Heat Hand Tool
- Solder Tip
- Hot Knife
- Heat Gun and Deflector
- Solder Blow Torch

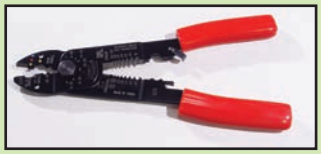
Part #94901K Contains:
- Heat Hand Tool
- Heat Gun and Deflector
- 2 Solder Tips
- Solder
- Tip Cleaning Sponge

Part #94908K Contains:
- Pistol Grip Heat Hand Tool
- Heat Gun and Deflector
- Solder Tip
- Wire Brush
- Solder
- Flux
- Solder Sucker
- Extra Fuel Cell
- Wire Cutters

Cable Strippers and Jacket

Part #94040
Jacket Stripper
8 Awg-4/0 Awg

Part #94143
Small Low Cost Strips
10-18 Awg



Part #94145
Multi Function Tool

Part #94015
Heavy Duty Wire Cutter
up to 500 MCM

Part #99166
CNS Crimp Kit

Contact Tooling

Part #UH2-5
AF8 Universal
Contact Locator

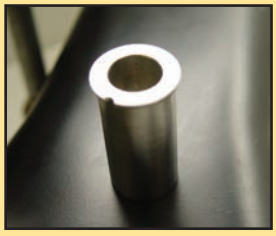
Crimp Kits

Call for more information.

Part #400BHD
Pneumatic Crimper
12 Awg-0 Awg

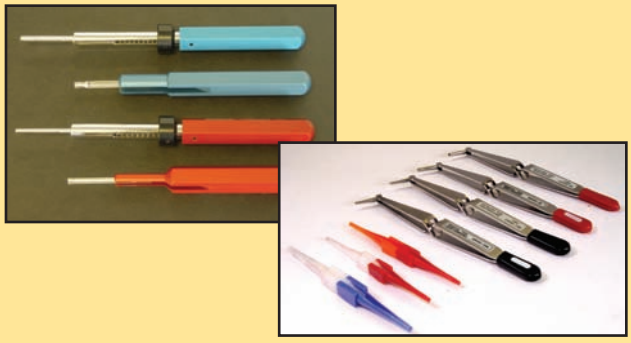
Power Crimp Die*

Go/No-Go Gauge*



Power Crimp Tool Contact Locator*

Contact Insertion/Extraction Tools*



Contact Insertion Lubricant

Part #1610N

*Call for More Information