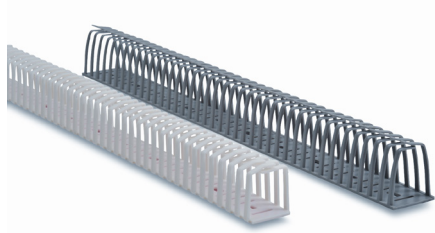


Dinosaur Flexible Wiring Duct

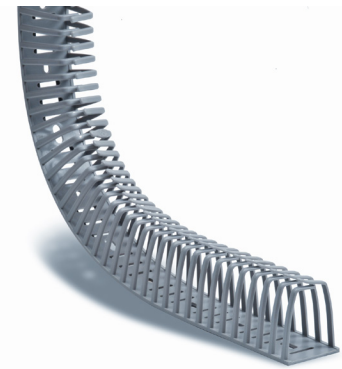
Overview

Dinosaur self-adhesive flexible duct is ideal for transporting wiring to cabinet doors from control panel interiors (for that part of the cable run that leans against the side of the control cabinet) and for electronic equipment. It is resilient and can be bent and twisted without breaking. Manufactured from low-smoke, halogen-free polypropylene material, it carries a UL 94V-0 flammability rating and CSA approval.



Features

- Easily add or remove individual wires from total wires within the duct
- Enclose and secure wiring or cables without requiring duct cover
- Convenient for applications requiring frequent access to wiring
- Easy addition or removal of wires after termination without special tools
- Use in extreme operating conditions (max temp. up to 176°F [80°C])
- Withstands mechanical stress when installed (i.e. earthquake, falling equipment)
- Cut to desired length using scissors or knife



Note: Make sure the surface is perfectly clean and dry before applying self-adhesive wiring duct.

UL Recognized file # E123572



To obtain the most current agency approval information, see the Agency Approval Checklist section on the

Gray Flexible, Self-Adhesive Duct			
Part Number	Qty	Price	Total Actual Length ft (m)
DN25AG	24		39.4 (12)
DN25AG-1	1		1.64 (0.5)
DN35AG	24		39.4 (12)
DN35AG-1	1		1.64 (0.5)
DN45AG	14		23.0 (7)
DN45AG-1	1		1.64 (0.5)

Adhesive-Backed Tape Specifications	
Material	Double coated PET film backing, modified acrylic adhesive
Applicable Mounting Surfaces	Paper, cardboard, wood, glass, ceramics, metal, rubber and many plastics
Recommended Tape Application Temperature	65 to 95°F (18 to 35°C)
Thickness	0.2 mm

Note: Make sure the surface is perfectly clean and dry before applying self-adhesive wiring duct.

Wire Fill Capacity						
Nominal Duct Size (inches)	12 AWG	14 AWG	16AWG	18 AWG	22 AWG	
	Insulation Thickness (in inches)					
	1/32	3/64	1/32	1/32	1/32	1/64
	OD-0.158	OD-0.165	OD-0.139	OD-0.125	OD-0.113	OD-0.065
Recommended Maximum Number of Wires per Wiring Duct (based on 50% fill capacity)						
1/2 x 1/2	6	5	7	9	11	33
3/4 x 3/4	13	12	6	20	25	75
1/2 x 3/4	8	8	11	13	16	50
1 x 1	23	21	29	36	44	133
1 x 1 3/8	31	28	40	50	61	183
1 1/2 x 1 1/2	51	46	65	81	99	299
1 3/8 x 1 3/4	54	50	70	87	106	321

Dinosaur Flexible Wiring Duct

Mounting Overview

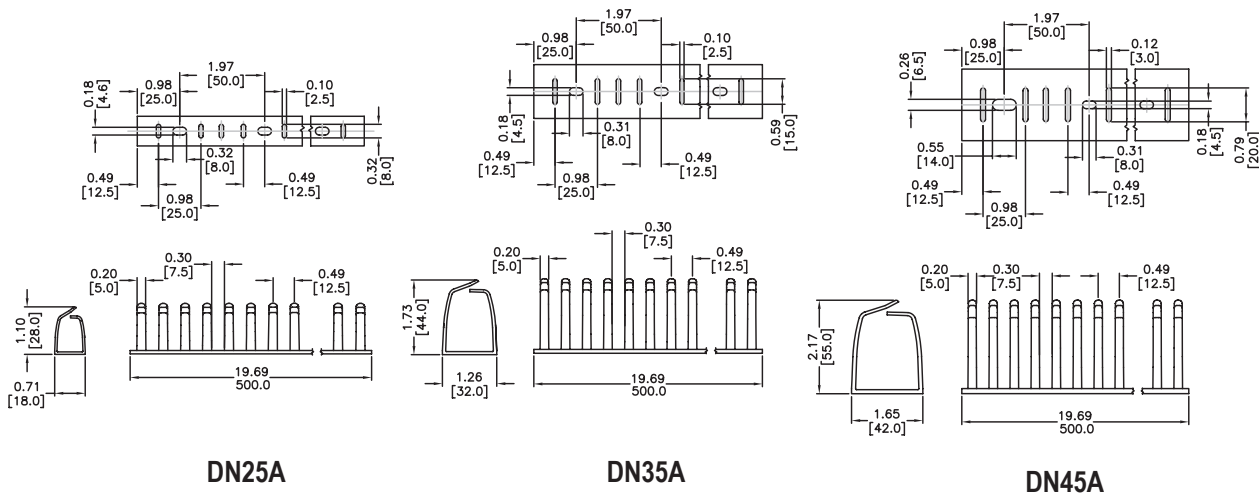
The base perforation of the DN series self-adhesive flexible wiring duct also allows mounting on the panel with rivets (R6 or R4), or on DIN rail, if desired.

Note: Duct base perforation according to DIN 43659 and DIN VDE 0660 TEIL 506.

Flexible, Self-Adhesive Duct Dimensions		
Nominal Size (WxH) inches (mm)	Part Number	Length per piece
	Gray	
0.5 x 0.75 (12.7 x 19.05)	DN25AG*	19.7" (500 mm)
1.0 x 1.38 (25.4 x 35.05)	DN35AG*	19.7" (500 mm)
1.38 x 1.75 (35.05 x 44.45)	DN45AG*	19.7" (500 mm)

*Package: This product available in single-piece packaging. Add "-1" for single piece package.

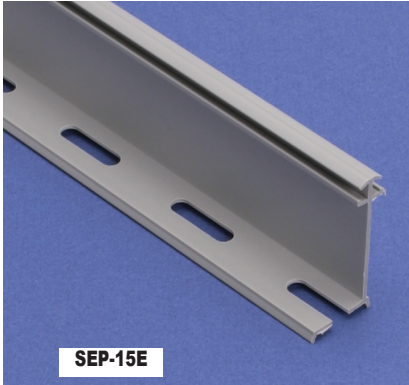
Dimensions inches (mm)



Wiring Duct – Accessories

Duct Separators

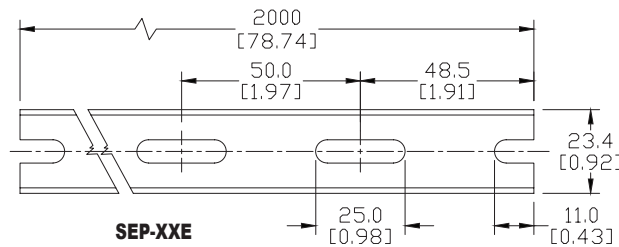
Duct separators allow the physical separation of circuits within a single piece of duct. The various mounting arrangements allow alternate compartmentalization of duct and differing ratios of usable sections.



Duct Separators					
Part Number	Price	Description	Color	Qty	Length ft (m)
SEP-15E-1		Separator for 1.5" high duct	Gray	1	6.56 (2)
SEP-22E-1		Separator for 2.25" high duct	Gray	1	6.56 (2)
SEP-30E-1		Separator for 3.0" high duct	Gray	1	6.56 (2)

Note: Length of separators is 6.56' (2m).

Dimensions
inches (mm)

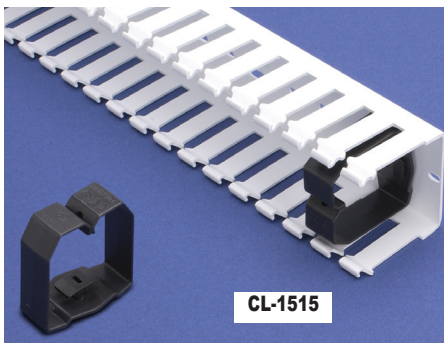


SEP-E Mounting Detail
Order ZP1 mount separately

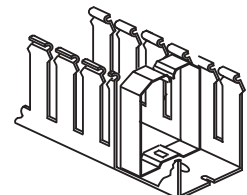
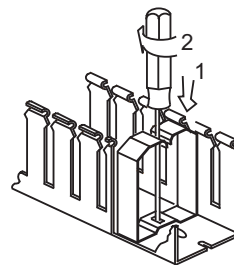
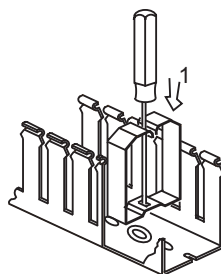
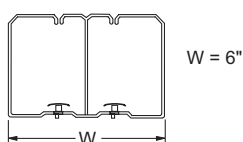
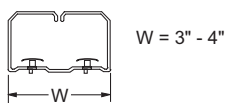
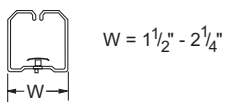


Wire Retainers

For holding wires during wiring operations, these retainers are essential. They allow easy access to the interior of the wiring duct during maintenance or alterations, while assuring that wiring bundles will not fall out when the duct cover is removed. Installed with a simple rotating movement, they anchor firmly in the recess boss in the duct base.



Wire Retainers				
Part Number	Price	Description	Color	Qty
CL-1515		Wire retainer fastener for 1.5" x 1.5" duct	Gray	40
CL-1522		Wire retainer fastener for 1.5" x 2.25" duct	Gray	40
CL-1530		Wire retainer fastener for 1.5" x 3.0" duct	Gray	20
CL-2215		Wire retainer fastener for 2.25" x 1.5" duct	Gray	40
CL-2222		Wire retainer fastener for 2.25" x 2.25" duct	Gray	20
CL-2230		Wire retainer fastener for 2.25" x 3.0" duct	Gray	20
CL-2240		Wire retainer fastener for 2.25" x 4.0" duct	Gray	20
CL-3022		Wire retainer fastener for 3.0" x 2.25" duct	Gray	10
CL-3030		Wire retainer fastener for 3.0" x 3.0" duct	Gray	10
CL-3040		Wire retainer fastener for 3.0" x 4.0" duct	Gray	10
CL-4022		Wire retainer fastener for 4.0" x 2.25" duct	Gray	10
CL-4030		Wire retainer fastener for 4.0" x 3.0" duct	Gray	10
CL-4040		Wire retainer fastener for 4.0" x 4.0" duct	Gray	5
CL-6040		Wire retainer fastener for 6.0" x 4.0" duct	Gray	5

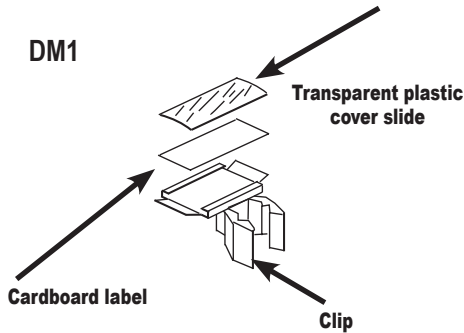


Wiring Duct – Accessories

Duct Marking Tags

Part Number	Price	Description	Qty
DM1		Single-width white cardboard identification label for wiring duct. Supplied with black plastic mounting clip and transparent plastic cover slide	50

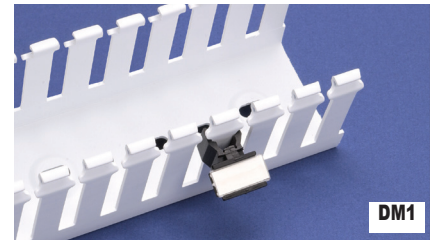
Note: DM1 marking tags can only be used with T1 series wire duct.



Identification Tags

Allowing easy identification of control gear and switchgear, these tags are mounted by snapping the clip onto the sidewall finger segments of the duct. No gluing - no drilling! After installation, they need not be removed during maintenance or any work which involves the removal of the covers.

Note: Take care that clip is installed above the wires coming out to the sidewall slots.

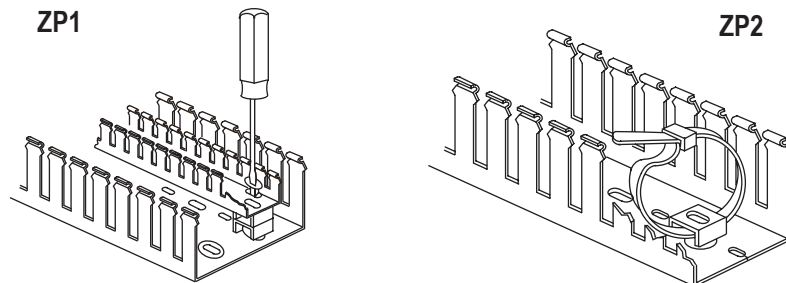


Mounting Devices

Part Number	Price	Description	Qty
ZP1		Round, white polyamide 'button' used to mount components and separators inside duct.	100
ZP2		Square white polyamide cable tie mount used to tighten a wire bundle inside duct.	50

Mounting Inserts

We carry mounts in two styles: ZP1 for mounting components and SEP-E separators inside duct, or for mounting small sizes of duct inside larger sizes (for separation of circuits with different functions); and ZP2, which is used with a cable tie to secure a wire bundle inside the duct.



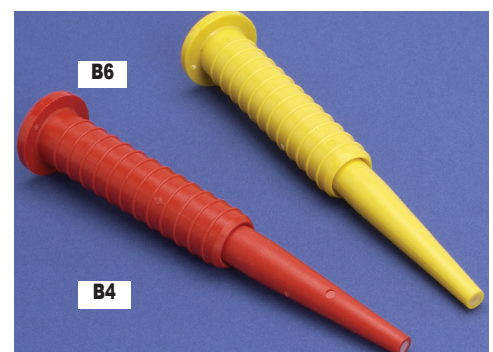
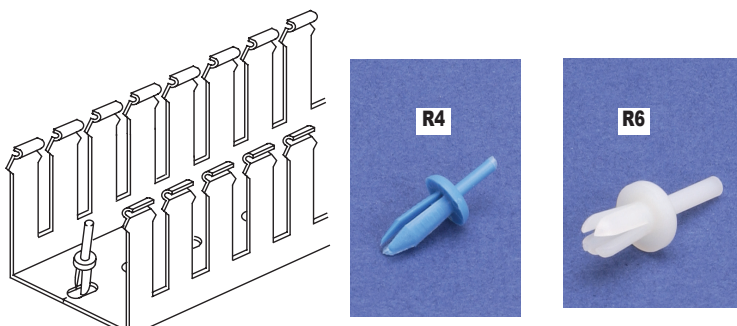
Wiring Duct Rivets and Rivet Tools

Part Number	Price	Description	Qty
R4*		Blue polyamide rivet used to install all types of wiring duct with standard 4.5 mm [0.17 in] mounting holes.	250
B4		Red polyamide rivet tool used to install R4 rivets.	1
R6*		Natural polyamide rivet used to install all types of wiring duct with standard 6.5 mm [0.26 in] mounting holes.	250
B6		Yellow polyamide rivet tool used to install R6 rivets.	1

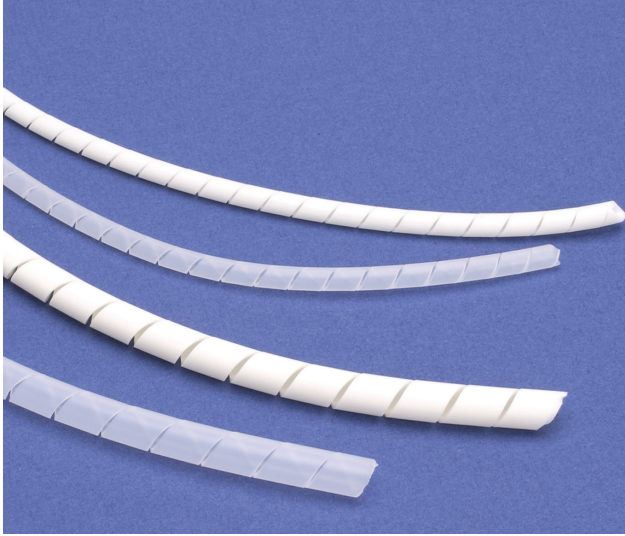
* R4 drill hole size - 5/32" (4mm), R6 drill hole size - 7/32" (5.5mm)

Rivets and Rivet Tools

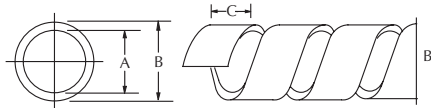
Wiring duct rivets install quickly and easily with the companion rivet tool, offering good temperature resistance and excellent mechanical properties. They can be used to install all types of wiring duct with standard mounting holes.



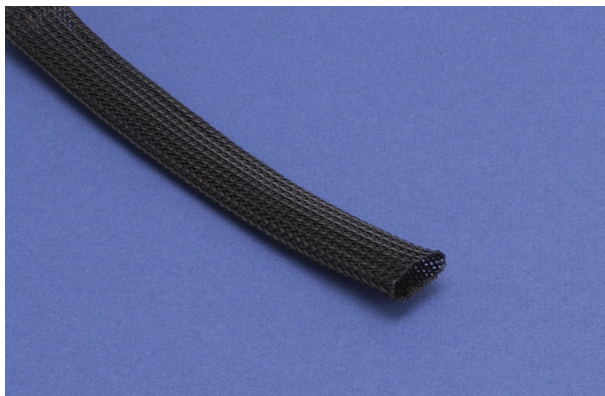
Wiring Duct – Accessories



Dimensions



Part Number		Dimensions in Inches			Wire Bundle Size in Inches	Feet per Carton
Polyethylene	Flame-Retardant Polyethylene	A	B	C		
<u>P-1</u>	<u>PA1</u>	.06	.12	.20	1/16 to 1/2	160
<u>P-2</u>	<u>PA2</u>	.16	.24	.31	¼ to 2	80
<u>P-3</u>	<u>PA3</u>	.31	.39	.47	3/8 to 3	80
<u>P-4</u>	<u>PA4</u>	.35	.47	.47	½ to 4	65



Braided Expandable Sleeving Material Specifications

Operating Temp	-50 to +150°C (-58 to +302°F)
Physical Properties	Self-extinguishing for UL 94V-2
Maximum Elongation	42%
Diameter Expansion	100%
Other	Halogen-free

Spiral Wrap

For neatly grouping wire bundles simply and economically, spiral wrap has no equal. Strong, yet easy to install, it protects the wire bundle, keeping it flexible though tightly contained. It is easily removed and reusable for temporary wiring.

Spiral Wrap				
Part Number	Price	Description	Color	Length
<u>P-1</u>		0.125" nominal o.d. Polyethylene spiral wrap used for wire bundles from 1/16 to 1/2 inch diameter.	Natural	160 ft./pack
<u>PA1</u>		0.125" nominal o.d. self-extinguishing Polyethylene spiral wrap used for wire bundles from 1/16 to 1/2 inch diameter.	White	160 ft./pack
<u>P-2</u>		0.25" nominal o.d. Polyethylene spiral wrap used for wire bundles from 1/4 to 2 inch diameter.	Natural	80 ft./pack
<u>PA2</u>		0.25" nominal o.d. self-extinguishing Polyethylene spiral wrap used for wire bundles from 1/4 to 2 inch diameter.	White	80 ft./pack
<u>P-3</u>		0.375" nominal o.d. Polyethylene spiral wrap used for wire bundles from 3/8 to 3 inch diameter.	Natural	80 ft./pack
<u>PA3</u>		0.375" nominal o.d. self-extinguishing Polyethylene spiral wrap used for wire bundles from 3/8 to 3 inch diameter.	White	80 ft./pack
<u>P-4</u>		0.5" nominal o.d. Polyethylene spiral wrap used for wire bundles from 1/2 to 4 inch diameter.	Natural	65 ft./pack
<u>PA4</u>		0.5" nominal o.d. self-extinguishing Polyethylene spiral wrap used for wire bundles from 1/2 to 4 inch diameter.	White	65 ft./pack

Braided Sleeving

This lightweight, expandable, self-extinguishing polyester sleeving has an open weave to allow maximum diameter expansion. It is super-flexible and easy to install, gripping objects of various shapes and sizes reliably. Abrasion-resistant, it provides extra protection against chemicals and flame.

Expandable Sleeving				
Part Number	Price	Description	Color	Length
<u>TY-5</u>		Braided expandable polyester sleeving, 0.197"(5mm) nominal i.d., 0.157"(4mm) to 0.472"(12mm) nominal range	Black	325 ft./pack
<u>TY-10</u>		Braided expandable polyester sleeving, 0.375"(10mm) nominal i.d., 0.315"(8mm) to 0.866"(22mm) nominal range	Black	325 ft./pack
<u>TY-20</u>		Braided expandable polyester sleeving, 0.750"(20mm) nominal i.d., 0.630"(16mm) to 1.378"(35mm) nominal range	Black	164 ft./pack
<u>TY-30</u>		Braided expandable polyester sleeving, 1.125"(30mm) nominal i.d., 0.984"(25mm) to 1.890"(48mm) nominal range	Black	164 ft./pack
<u>TY-50</u>		Braided expandable polyester sleeving, 2.0"(50mm) nominal i.d., 1.575"(40mm) to 2.825"(72mm) nominal range	Black	164 ft./pack

Wiring Duct – Material Specifications

Material Specifications								
Materials	Test Standard	Unit of Measure	Rigid PVC	Polypropylene	PVC Molded Components	Polyamide 6	Polyethylene	Flame Retardant Polyethylene
Technical Characteristics								
Chemical/Physical Properties								
Specific Gravity	ASTM D792	g/cm ³	1.55	1.01	1.32	1.14	0.92	0.97
H ₂ O 73.4°F Absorption	ISO 62	%	<0.1	0.02	<0.1	2.5	<0.1	<0.1
Formaldehyde	–	ppm	absent	absent	absent	absent	absent	absent
Cadmium	–	ppm	absent	absent	absent	absent	absent	absent
Mechanical Properties								
Tensile Stress at Break	ASTM D638	MPa	39	28	30	45	17	15
Traction Strength	ASTM D638	MPa	44	27	27	55	9.5	9
Elongation at Break	ASTM D638	%	130	200	97	250	400	600
Modulus of Elasticity at Traction	ASTM D638	MPa	4400	n/a	–	950	–	240
Modulus of Elasticity at Flexion	ASTM D790	MPa	3200	2100	–	1100	210	130
Thermal Properties								
Temperature VICAT	ASTM D1525	°C	84	95	70	198	89	–
HDT	ASTM D648	°C	72	60	60	185	–	–
Coefficient of Expansion	ASTM D696	K ⁻¹	6 10 ⁻⁵	10 ⁻⁵	8 10 ⁻⁵	8-10 10 ⁻⁵	22 10 ⁻⁵	10 ⁻⁵
Specific Heat	ASTM C351	kJ/kgK	0.94	n/a	1.24	1.7	–	–
Thermal Conductivity	ASTM C177	W/mK	0.14	0.21	0.14	0.29	0.32	0.32
Electrical Properties								
Dielectric Constant	ASTM D150	–	3.2 - 4.0	2.5	3.2	5.0	2.4	2.3
Dielectric Strength	IEC 243	kV/mm	70	25	60	35	90	90
Surface Resistance	IEC 93	Ω	10 ¹³	10 ¹³	10 ¹³	5 10 ¹¹	10 ¹³	10 ¹³
Self-Extinguishing								
Self-Extinguishing UL 94 1.6 mm	UL 94	–	V-0	V-0	V-0	V-2	HB	V-2
Self-Extinguishing UL 94 3.2 mm	UL 94	–	V-0	V-0	V-0	V-2	HB	V-2
Hot Wire Test (2 mm)	IEC 695-2-1	°C	960	960	960	650	650	850
Oxygen Number	ASTM D2863	%	43	30	34	25	–	25