

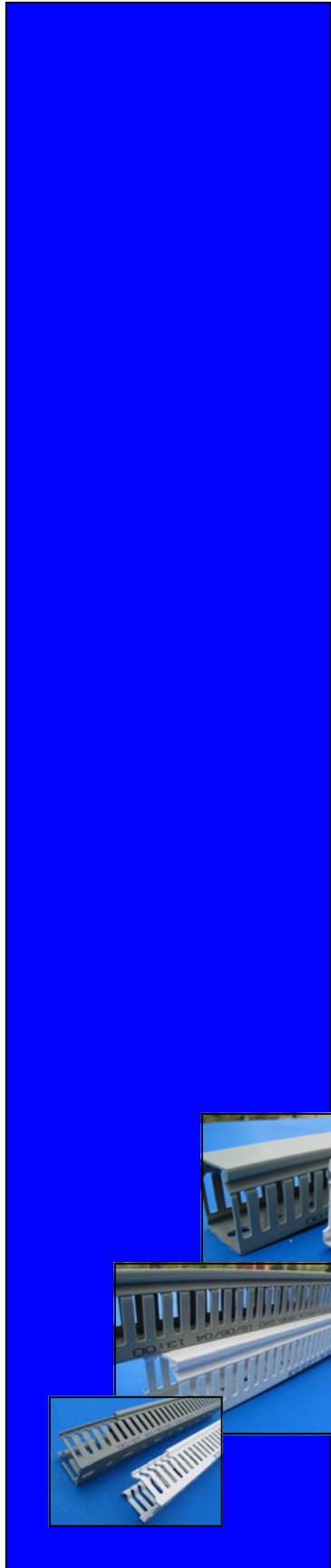
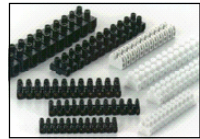
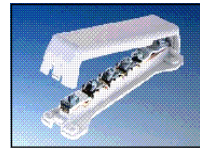
NIEDAX-Kleinhuis USA, Inc.

A DIVISION OF THE ...

 **NIEDAX GROUP**

 **NIEDAX**

 **Kleinhuis**



2007 Catalog



Welcome to Niedax-Kleinhuis USA, Inc.

Large OEM's to small manufacturers and contractors can all depend on our quality line of electrical components. From easy to use P-Nut push-in wire connectors, to our large range of Cord Grips, we are sure you will find our products perfect for your application.

For a **full-line German catalog or more information** on any of our quality wiring devices and electrical components please visit our website at **www.kleinhuis.com** or call **800-544-2105**.



Niedax-Kleinhuis USA, Inc.
A Division of the Niedax Group

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CERTIFICATE

The TÜV CERT Certification Body
of TÜV Anlagentechnik GmbH
Unternehmensgruppe TÜV Rheinland Berlin Brandenburg

certifies in accordance with
TÜV CERT procedures that



Hermann Kleinhuis GmbH + Co. KG
Asbacher Str. 141
D-53545 Linz/Rh.
mit dem Standort:
Maybachstr. 1, 72585 Riederich

has established and applies a quality management system for
**development, production and sale of component parts
and systems for electrical installation**

An audit was performed, Report No. 5506
Proof has been furnished that the requirements according to

DIN EN ISO 9001:2000

are fulfilled.

The certificate is valid until **31. May 2006**

Certificate Registration No. **01 100 5506/1**



Betzdorf, 2003-09-22

First certification 1995



TÜV Rheinland
Berlin Brandenburg

Feldhoff
TÜV CERT Certification Body of
TÜV Anlagentechnik GmbH

Niedax Gmbh & Co. Kg

Our Parent company, located in Germany, is a Manufacturer of UL listed Cable Tray and Cable Management Systems and Accessories.

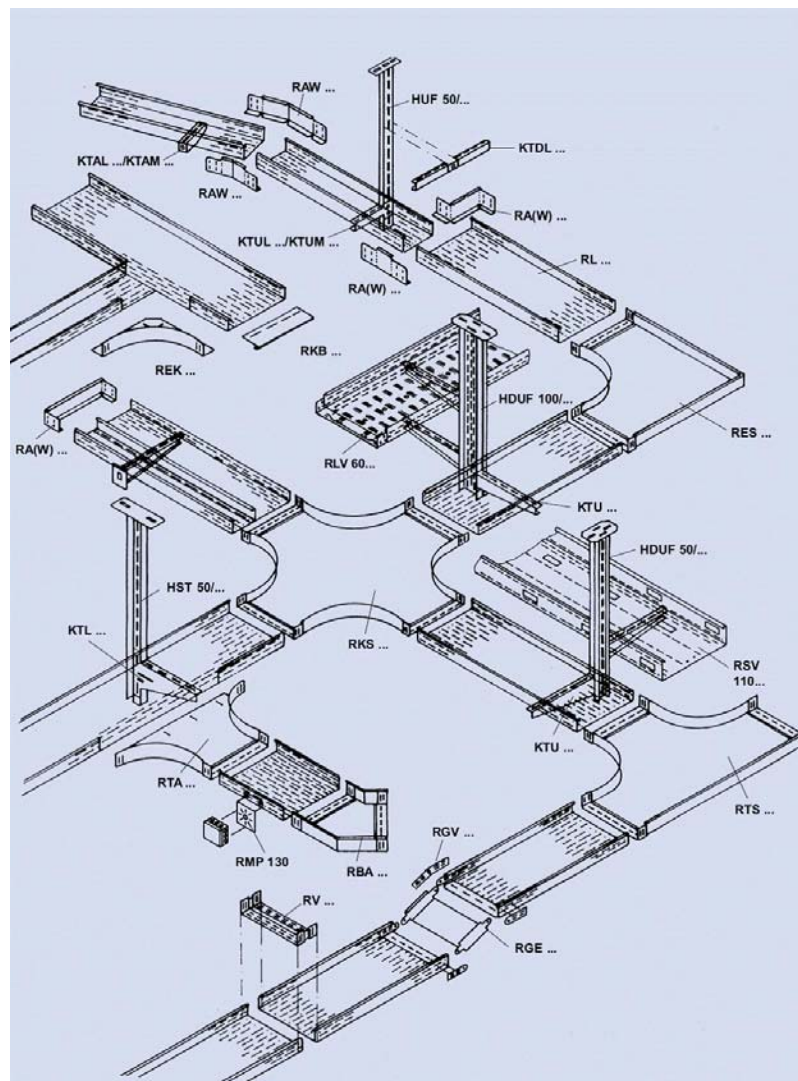
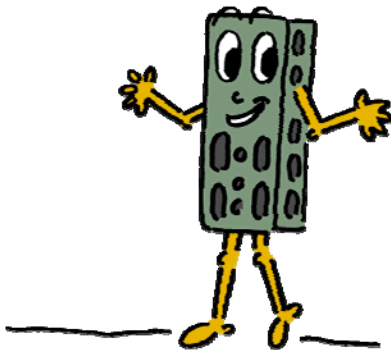


Niedax-Kleinhuis USA, Inc. is very excited to introduce this new line of products to our customers.

For more information and/or a full-line catalog, please Contact us at:

800-544-2105
614-921-8469
614-921-8676/Fax

sales@kleinhuis.com
www.kleinhuis.com



IPON® Features

Easy to install

Simply insert your cord into the IPON, tighten the dome-nut and the cable is fixed, centered, sealed and strain relieved. No disassembly required.

Liquid Tight

The IPON is NEMA 6P (IP 68)

Cable Protection

Our innovative seal and clamp design allows the IPON cord connector sealing ring to tighten around the cable in a circular fashion, thereby providing outstanding strain relief without twisting or damage to the cord.

Vibration Proof

Robust, tried and true single buttress threads have been integrated into the IPON design. This thread type ensures protection against vibration, even under extreme conditions.

Cost effective

Typically 1/3 the cost of a metal equivalent.

Versatile

7 NPT fittings (3/8" - 2") cover cable diameters from .157" - 1.7". The IPON is available in NPT, Pg & Metric thread types. (Cable ranges from .177" up to 1.732")



IPON® Quick Reference Guide:

- Three Colors-Black, Grey & Light Grey
- 7 NPT Thread Types: NPT 3/8" to 2"
- 8 Metric Thread Types: M12 to M63
- 10 Pg Thread Types: Pg 7 to Pg 48
- PVC Locknuts available for most sizes.



IPON CORD CONNECTORS NPT, PG & METRIC SIZES

Material: Halogen Free Polyamide, Silicone Free
Sealing Grommet: Neoprene
Temp Range: Permanent -30°C to 100°C (-22°F to 212°F)
 Short Term 150° C
Protection Class: IP68, 5 bar / Comparable to NEMA 6P
Flame Resistance: UL 94 V0, Incandescent wire
 Test 850°C to VDE Standard 0471/DIN IEC 695,
 Part 2-1



Rated Size	Part # Light Grey	Part # Grey	Part # Black	Cable Range (Inches)	Cable Range (mm)	Thread Length (mm)	Knockout Diameter (mm)	Box Qty.	
NPT SIZES	NPT 3/8"	1234N3801	1234N3802	1234N3803	.157-.315	4-8	15	17.1	50
	NPT 1/2"	1234N1201	1234N1202	1234N1203	.236-.472	6-12	15	21.3	50
	NPT 3/4"	1234N3401	1234N3402	1234N3403	.472-.709	12-18	15	26.7	25
	NPT 1"	1234N1001	1234N1002	1234N1003	.669-.984	17-25	19	33.4	10
METRIC SIZES	NPT 1-1/4"	1234N11401	1234N11402	1234N11403	.866-1.260	20-32	19	42.2	10
	NPT 1-1/2"	1234N11201	1234N11202	1234N11203	1.181-1.496	32-38	19	48.3	5
	NPT 2"	1234N2001	1234N2002	1234N2003	1.457-1.732	37-44	19	60.3	5
	M 12 X 1.5	1234M1201	1234M1202	1234M1203	.118-.256	4-6	8	12	50
	M 16 X 1.5	1234M1601	1234M1602	1234M1603	.157-.315	5.5-8	8	16	50
	M 20 X 1.5	1234M2001	1234M2002	1234M2003	.236-.472	7-12	9	20	50
	M 25 X 1.5	1234M2501	1234M2502	1234M2503	.472-.709	12-18	12	25	25
	M 32 X 1.5	1234M3201	1234M3202	1234M3203	.669-.984	18-25	12	32	10
PG SIZES	M 40 X 1.5	1234M4001	1234M4002	1234M4003	.787-1.260	22-32	13	40	10
	M 50 X 1.5	1234M5001	1234M5002	1234M5003	1.260-1.496	32-38	13	50	5
	M 63 X 1.5	1234M6301	1234M6302	1234M6303	1.456-1.732	38-44	14	63	5
	Pg 7	1234P0701	1234P0702	1234P0703	.118-.256	3-6.5	8	12.5	50
	Pg 9	1234P0901	1234P0902	1234P0903	.157-.315	4-8	8	15.2	50
	Pg 11	1234P1101	1234P1102	1234P1103	.197-.394	5-10	8	18.6	50
	Pg 13.5	1234P1301	1234P1302	1234P1303	.236-.472	6-12	9	20.4	50
	Pg 16	1234P1601	1234P1602	1234P1603	.354-.551	9-14	10	22.5	50
	Pg 21	1234P2101	1234P2102	1234P2103	.472-.709	12-18	11	28.3	25
	Pg 29	1234P2901	1234P2902	1234P2903	.669-.984	17-25	11	37.0	10
Pg 36	1234P3601	1234P3602	1234P3603	.787-1.260	20-32	13	47.0	10	
Pg 42	1234P4201	1234P4202	1234P4203	1.260-1.496	32-38	13	54.0	5	
Pg 48	1234P4801	1234P4802	1234P4803	1.456-1.732	37-44	14	59.3	5	



Applications:

Control Panels

**Agricultural / Food
Processing Machinery**

Power Washers

HVAC Equipment

Landscape Lighting

Marine Industry

Fiber Optic Cable

Machine Tool OEM's

Lighting OEM's

Instruments



IPON Installation



**Screw the IPON
into the panel / plate
or tighten with op-
tional locknut.**



Insert the cable.



**Tighten dome-nut as
specified.**

MULTI-HOLE CORD CONNECTORS

Material: Polyamide, Silicone Free
Sealing Grommet: Neoprene
Temp Range: Permanent -30°C to 100°C
Protection Class: IP68, 5 bar



Size	Part #	# of Holes / Grommet	Hole Size (mm)
NPT 3/8"	BSTP-01/2x3	2	3mm
	BSTP-01/2x4	2	4mm
	BSTP-01/2x4.5	2	4.5mm
	BSTP-01/2x5	2	5mm
	BSTP-01/3x3	3	3mm
	BSTP-01/3x4	3	4mm
	BSTP-01/3x5	3	5mm
	BSTP-01/4x3	4	3mm
NPT 1/2"	BSTP-02/2x4	2	4mm
	BSTP-02/2x6	2	6mm
	BSTP-02/3x4	3	4mm
	BSTP-02/3x5	3	5mm
	BSTP-02/3x6	3	6mm
	BSTP-02/3x6.5	3	6.5mm
	BSTP-02/4x4	4	4mm
	BSTP-02/4x5	4	5mm
	BSTP-02/4x6	4	6mm
	BSTP-02/5x4	5	4mm
NPT 3/4"	BSTP-04/2x7	2	7mm
	BSTP-04/2x8	2	8mm
	BSTP-04/2x9	2	9mm
	BSTP-04/3x7	3	7mm
	BSTP-04/3x8	3	8mm
	BSTP-04/4x5	4	5mm
	BSTP-04/4x7	4	7mm
	BSTP-04/4x7.5	4	7.5mm
	NPT 1"	BSTP-06/5x8.5	5
BSTP-06/6x5		6	5mm
BSTP-06/6x7.5		6	7.5mm
BSTP-06/8x5		8	5mm

Multi-hole cord connectors are great for use in limited space environments where multiple cables need to be run safely into an enclosure. Fittings are liquid-tight, easy to install and provide strain-relief to the conductors.

Rated IP 68 for use in Nema 4 enclosures.

Uses: Instrumentation wire installations, Proximity device wiring and signal cables.

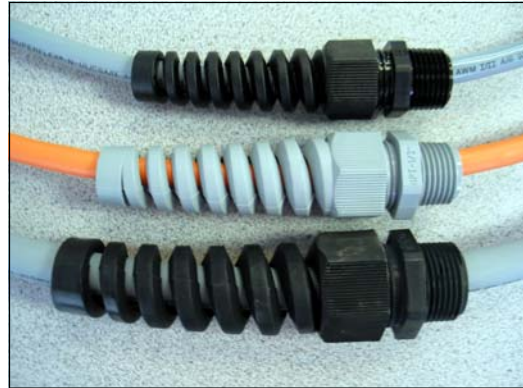
Available in Grey or Black



SPIRAL-TOP CONNECTORS NPT, PG SIZES

Material: Halogen Free Polyamide
Sealing Grommet: Neoprene
Protection Class: IP68, 5 bar / NEMA 6P

The Spiral-Top shares many of the great features found in our IPON cord connector series. The spiral extension provides greater level of strain-relief and prevents sharp bends or kinks to cable/wires.



Rated Size	Part # Grey	Part # Black	Cable Range (Inches)	Box Qty.
NPT 3/8"	1234N3802ASP	1234N3803ASP	.118-.275	50
NPT 3/8"	1234N3802BSP	1234N3803BSP	.197-.393	50
NPT 1/2"	1234N1202ASP	1234N1203ASP	.197-.354	50
NPT 1/2"	1234N1202BSP	1234N1203BSP	.276-.472	50
NPT 3/4"	1234N3402ASP	1234N3403ASP	.354-.630	25
NPT 3/4"	1234N3402BSP	1234N3403BSP	.512-.708	25
Pg 7	1234P0702ASP	1234P0703ASP	.079-.196	50
Pg 7	1234P0702BSP	1234P0703BSP	.118-.225	50
Pg 9	1234P0902ASP	1234P0903ASP	.079-.236	50
Pg 9	1234P0902BSP	1234P0903BSP	.157-.315	50
Pg 11	1234P1102ASP	1234P1103ASP	.118-.275	50
Pg 11	1234P1102BSP	1234P1103BSP	.197-.393	50
Pg 13.5	1234P1302ASP	1234P1303ASP	.197-.354	25
Pg 13.5	1234P1302BSP	1234P1303BSP	.236-.472	25
Pg 16	1234P1602ASP	1234P1603ASP	.276-.472	25
Pg 16	1234P1602BSP	1234P1603BSP	.394-.551	25
Pg 21	1234P2102ASP	1234P2103ASP	.354-.630	10
Pg 21	1234P2102BSP	1234P2103BSP	.512-.708	10

Applications:

- Portable Machines
- Panels / boxes located in high traffic areas

Trumpeted IPON Cord Connectors

Material: Halogen Free Polyamide, Fiber glass reinforced
Sealing Grommet: Neoprene
Temp Range: Permanent -30°C to 100°C (-22°F to 212°F)
 Short Term 150° C
Protection Class: IP68, 5 bar / NEMA 6P
Flame Resistance: UL 94 V0, Incandescent wire
 Test 850°C to VDE Standard 0471/DIN IEC 695,
 Part 2-1



Provides additional strain-relief to protect cable from extreme bends.



Rated Size	Part # Grey	Part # Black	Cable Range (Inches)	Thread Length (inches)	Knockout Diameter (inches)	Box Qty.
NPT 1/2"	1234/12BT	1234/12BTSZ	.354-.472	.512	.875	50
Pg 11	1234/11BT	1234/11BTSZ	.315-.394	.315	.732	50
Pg 13.5	1234/13BT	1234/13BTSZ	.354-.472	.354	.803	50

Available in polyethylene material (987 series)
 or oil & gasoline resistant BUNA-A (987PERB)

SEALING RINGS & ACCESSORIES

Rated Size	Part # Polyethylene Material	Part # Buna-N Material	Box Qty.
M 12	987M12	987PERB/M12	100
M 16	987M16	987PERB/M16	100
M 20	987M20	987PERB/M20	100
M 25	987M25	987PERB/M25	100
M 32	987M32	987PERB/M32	100
M 40	987M40	987PERB/M40	100
M 50	987M50	987PERB/M50	100
M 63	987M63	987PERB/M63	100

Used to provide extra liquid-tight protection.



Rated Size	Part # Polyethylene Material	Part # Buna-N Material	Box Qty.
Pg 7	987/7	987PERB/7	100
Pg 9	987/9	987PERB/9	100
Pg 11	987/11	987PERB/11	100
Pg 13.5	987/13	987PERB/13	100
Pg 16	987/16	987PERB/16	100
Pg 21	987/21	987PERB/21	100
Pg 29	987/29	987PERB/29	100
PG 36	987/36	987PERB/36	100
Pg 42	987/42	987PERB/42	100
Pg 48	987/48	987PERB/48	100

Adapters –Pg & Metric Thread Types

The solution to your metric & Pg thread conversion problems!

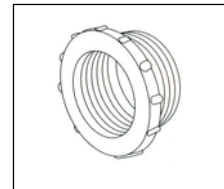
Part #	Outer Pg	Inner Metric	Box Qty.
1897P07M12	7	12	50
1897P07M16	7	16	50
1897P09M12	9	12	50
1897P09M16	9	16	50
1897P09M20	9	20	50
1897P11M16	11	16	50
1897P11M20	11	20	50
1897P13M16	13.5	16	25
1897P13M20	13.5	20	25
1897P13M25	13.5	25	25
1897P16M20	16	20	25
1897P16M25	16	25	25
1897P21M25	21	25	10
1897P21M32	21	32	10
1897P29M32	29	32	10
1897P29M40	29	40	10

Adapter, Pg—Metric

With Pg connection thread and metric inner thread.

Material: Fiber glass reinforced polyamide, **Halogen Free.**

Color: Grey



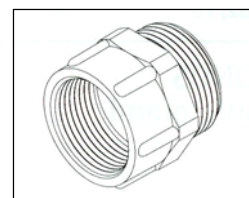
Part #	Outer Metric	Inner Pg	Box Qty.
1898M12P07	12	7	50
1898M12P09	12	9	50
1898M16P09	16	9	50
1898M20P11	20	11	50
1898M20P13	20	13.5	50
1898M20P16	20	16	50
1898M25P16	25	16	50
1898M25P21	25	21	25
1898M32P21	32	21	25
1898M32P29	32	29	25
1898M40P29	40	29	25
1898M40P36	40	36	25
1898M50P36	50	36	10
1898M50P42	50	42	10
1898M63P48	63	48	10

Adapter, Metric-Pg

With metric connection thread and Pg inner thread.

Material: Fiber glass reinforced polyamide, **Halogen Free.**

Color: Grey



Hexagon Locknuts

DIN 46 320

Material: (1420 Series) Polyamide, fiber glass reinforced, with fire protection.

Halogen Free. (420 Series) Nickel-Plated Brass

Sizes: NPT, Metric and Pg thread types available.



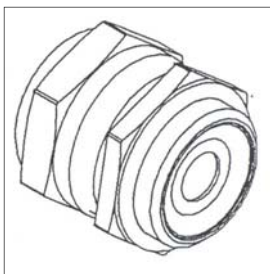
Rated Size	Part # Grey	Part # Black	Minimum Box Qty.
NPT 3/8"	1420/38	1420/38sz	100
NPT 1/2"	1420/12	1420/12sz	100
NPT 3/4"	1420/34	1420/34sz	100
NPT 1"	1420/10	1420/10sz	50
M 12 x 1.5	1420M12	1420M12sz	100
M 16 x 1.5	1420M16	1420M16sz	100
M 20 x 1.5	1420M20	1420M20sz	100
M 25 x 1.5	1420M25	1420M25sz	100
M 32 x 1.5	1420M32	1420M32sz	50
M 40 x 1.5	1420M40	1420M40sz	25
M 50 x 1.5	1420M50	1420M50sz	25
M 63 x 1.5	1420M63	1420M63sz	25
Pg 7	1420/7	1420/7sz	100
Pg 9	1420/9	1420/9sz	100
Pg 11	1420/11	1420/11sz	100
Pg 13.5	1420/13	1420/13sz	100
Pg 16	1420/16	1420/16sz	100
Pg 21	1420/21	1420/21sz	100
Pg 29	1420/29	1420/29sz	50
Pg 36	1420/36	1420/36sz	25
Pg 42	1420/42	1420/42sz	25
Pg 48	1420/48	1420/48sz	25

Rated Size	Part #	Minimum Box Qty.
M 12 x 1.5	420M12	100
M 16 x 1.5	420M16	100
M 20 x 1.5	420M20	100
M 25 x 1.5	420M25	100
M 32 x 1.5	420M32	50
M 40 x 1.5	420M40	25
M 50 x 1.5	420M50	25
M 63 x 1.5	420M63	25
Pg 7	420/7	100
Pg 9	420/9	100
Pg 11	420/11	100
Pg 13.5	420/13	100
Pg 16	420/16	100
Pg 21	420/21	100
Pg 29	420/29	50
Pg 36	420/36	25
Pg 42	420/42	25
Pg 48	420/48	25



2532 Series Cord Connector

Material: Brass, nickel-plated
Protection Class: IP 68 / Nema 6
Features a continuous sealing insert and connection thread sealing ring.



Rated Size	Part #	Cable Range (Inches)	Minimum Box Qty.
NPT 3/8"	2532/38A	.079—.236	50
	2532/38B	.157—.315	
NPT 1/2"	2532/12A	.197—.354	50
	2532/12B	.236—.472	
NPT 3/4"	2532/34A	.354—.630	50
	2532/34B	.512—.709	
M 12 X 1.5	2532M12A	.196—.236	50
	2532M12B	.157—.236	
M 16 X 1.5	2532M16A	.236—.354	50
	2532M16B	.157—.354	
M 20 X 1.5	2532M20A	.354—.512	50
	2532M20B	.275—.512	
M 25 X 1.5	2532M25A	.551—.708	25
	2532M25B	.393—.708	
M 32 X 1.5	2532M32A	.787—.944	25
	2532M32B	.630—.944	
M 40 X 1.5	2532M40A	1.06—1.26	10
	2532M40B	.866—1.26	
M 50 X 1.5	2532M50A	1.38- 1.57	5
	2532M50B	1.18- 1.57	
M 63 X 1.5	2532M63A	1.77-2.04	5
	2532M63B	1.50-2.04	

Rated Size	Part #	Cable Range (Inches)	Minimum Box Qty.
Pg 7	2532/7A	.118—.197	50
	2532/7B	.197—.276	
Pg 9	2532/9A	.276—.394	50
	2532/9B	.157—.394	
Pg 11	2532/11A	.354—.472	50
	2532/11B	.197—.472	
Pg 13.5	2532/13A	.472—.591	50
	2532/13B	.315—.591	
Pg 16	2532/16A	.472—.591	50
	2532/16B	.315—.591	
Pg 21	2532/21A	.669—.787	25
	2532/21B	.394—.787	
Pg 29	2532/29A	.945-1.10	10
	2532/29B	.748-1.10	
Pg 36	2532/36A	1.22-1.38	10
	2532/36B	1.02-1.38	
Pg 42	2532/42A	1.57-1.77	5
	2532/42B	1.38-1.77	
Pg 48	2532/48A	1.65-1.93	5
	2532/48B	1.34-1.93	

A great time-saver!

Easy to install. No disassembly required. Simply insert the cord, tighten the dome nut and the cable is fixed, centered, sealed and strain relieved.

Cost effective

Great for use in food processing equipment and plant facilities, control panels, ships & dock areas and many other applications.

Quality

Superior design and quality materials insure a worry-free installation. Corrosion resistant brass nickel-plated construction. **Exceeds Nema 4x or 6 specifications!**

Reducers – Pg & Metric Thread Types

Part # Pg connection thread	Male Thread Pg	Female Thread Pg	Box Qty.
44/0907	9	7	100
44/1107	11	7	100
44/1109	11	9	100
44/1307	13.5	7	100
44/1309	13.5	9	100
44/1311	13.5	11	100
44/1609	16	9	100
44/1611	16	11	100
44/1613	16	13.5	100
44/2111	21	11	50
44/2113	21	13.5	50
44/2116	21	16	50
44/2916	29	16	25
44/2921	29	21	25
44/3621	36	21	25
44/3629	36	29	25
44/4229	42	29	25
44/4236	42	36	25
44/4836	48	36	25
44/4842	48	42	25

Reducing Ring

Material: Brass, Nickel-plated
Sizes: Available in Pg and Metric thread types.



Part # Metric Connection thread	Male Thread Metric	Female Thread Metric	Box Qty.
44M1612	16	12	100
44M2012	20	12	100
44M2016	20	16	100
44M2516	25	16	100
44M2520	25	20	100
44M3220	32	20	25
44M3225	32	25	25
44M4025	40	25	25
44M4032	40	32	25
44M5032	50	32	10
44M5040	50	40	10
44M6340	63	40	10
44M6350	63	50	10



Adapters – Pg, Metric & NPT Thread Types

Part #	Outer Pg	Inner Metric	Box Qty.
46P11M16	11	16	50
46P13M16	13.5	16	50
46P16M20	16	20	50
46P21M20	21	20	25
46P21M25	21	25	25
46P29M25	29	25	25

Adapter, Pg-Metric

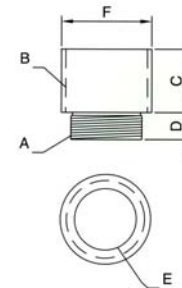
Material: Brass, Nickel-plated
Sizes: Available in Pg and Metric thread types



Part #	A (male) M	B (female) NPT	C (mm)	D (mm)	E (mm)	F (mm)
1234M16/12	M16	1/2"	18.0	6.5	11.0	24.0
1234M20/12	M20	1/2"	18.0	6.5	15.0	24.0
1234M25/34	M25	3/4"	20.0	7.0	18.0	30.0
1234M32/34	M32	3/4"	18.0	8.0	23.0	37.0
1234M32/10	M32	1"	20.0	8.0	27.0	38.0
1234M32/125	M32	1.25"	18.0	8.0	27.0	46.0
1234M40/125	M40	1.25"	18.0	8.0	34.0	46.0

Adapter, Metric-NPT

Material: Brass, Nickel-plated
O-Ring: BUNA-N



Part #	Outer Metric	Inner Pg	Box Qty.
47M16P07	16	7	50
47M20P09	20	9	50
47M25P11	25	11	50
47M25P13	25	13.5	50
47M25P16	25	16	50
47M32P16	32	16	25
47M32P21	32	21	25
47M40P21	40	21	10
47M50P29	50	29	10
47M63P36	63	36	10
47M63P42	63	42	10

Adapter, Metric-Pg

Material: Brass, Nickel-plated
Sizes: Available in Pg and Metric thread types.



Adapters – NPT, Pg & Metric Thread Types

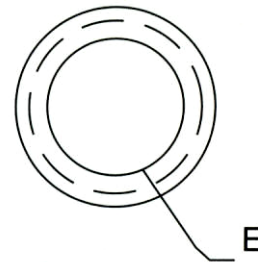
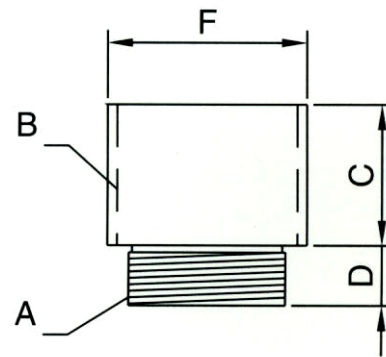
Brass, Nickel-plated problem solvers!

Part #	A (male) Pg	B (female) NPT	C (mm)	D (mm)	E (mm)	F (mm)	Box Qty.
1234/1138	11	3/8"	14.0	6.0	13.6	19.9	50
1234/1112	11	1/2"	18.0	6.0	13.6	24.0	50
1234/1312	13.5	1/2"	18.0	6.5	16.9	24.0	50
1234/1612	16	1/2"	18.0	6.5	17.0	24.0	50
1234/2134	21	3/4"	18.0	7.0	23.2	30.0	25
1234/2910	29	1"	18.0	8.0	28.9	38.9	10
1234/36125	36	1-1/4"	20.0	9.0	37.0	50.1	5
1234/42150	42	1-1/2"	18.0	10.0	42.5	56.9	5

**Adapter: Pg-NPT,
Metric-Metric & Pg-Pg**

Material: Brass, Nickel-plated

Part #	A (male) Metric	B (female) Metric	Box Qty.
51M1216	12	16	100
51M1620	16	20	100
51M2025	20	25	100
51M2532	25	32	100
51M3240	32	40	100
51M4050	40	50	100
51M5063	50	63	50



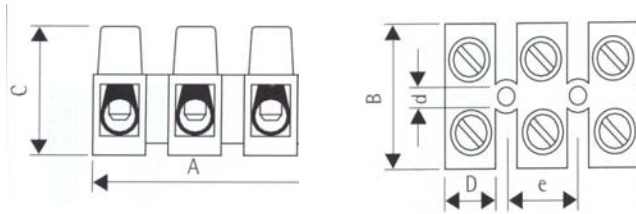
Part #	A (male) Pg	B (female) Pg	C (mm)	D (mm)	E (mm)	F (mm)	Box Qty.
51/0709	7	9	10	5	10	17	100
51/0911	9	11	10.5	6	12.5	20	100
51/0913	9	13.5	11.5	6	12.5	22	100
51/1113	11	13.5	11.5	6	15	22	100
51/1116	11	16	12.5	6	15	24	100
51/1316	13.5	16	12.5	6.5	17	24	100
51/1321	13.5	21	14.5	6.5	17	30	50
51/1621	16	21	14.5	6.5	18.5	30	50
51/2129	21	29	16	7	24	39	50
51/2936	29	36	19.5	8	32	50	25
51/3642	36	42	22	9	42	57	20
51/4248	42	48	23	10	48	64	10

EURO-STYLE TERMINAL BLOCKS

Material: Polyamide, heat proof, flame resistant.
Terminal Belts: Nickel Plated Brass.
Temp Range: -40°C to 105°C (-40°F to 221°F).
Flame Resistance: UL 94 V-2.



Ideal for a variety of industrial electrical and electronic applications. Kleinhuys manufactures these terminal strips with your needs for flexibility, safety and economy in mind.



- Dead front construction.
- Wire-Guard versions for stranded wires.
- 600 V rated without skipping terminals.
- Finger safe.
- Flexible polyamide allows for easy cutting to custom configurations.

Part #	Wire Range	V	A (Amps)	d	e	A	B	C	D	Box Qty.
1129	14-20 AWG	600	20	.110	.315	3.720	.630	.622	.244	10
1129 D w/wire guard	14-20 AWG	600	20	.110	.315	3.720	.630	.622	.244	10
159	12-18 AWG	600	27	.126	.394	4.606	.787	.677	.276	10
159 D w/wire guard	12-18 AWG	600	27	.126	.394	4.606	.787	.677	.276	10
160	8-14 AWG	600	45	.138	.469	5.472	.906	.787	.315	10
160 D w/wire guard	8-14 AWG	600	45	.138	.469	5.472	.906	.787	.315	10

“D” denotes wire guard model

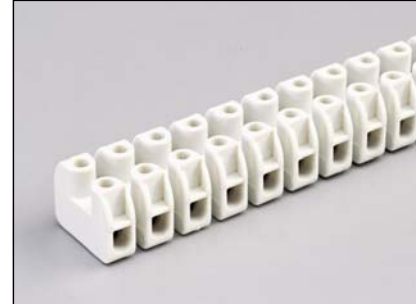
Applications:

HID Lighting Lighting Controls
 Heat Pumps Air Conditioners
 Environmental Controls
 Cable TV Industry
 Instrument OEM's
 Security & Fire Alarm Systems
 RV & Trailer OEM's
 Electronics: Speakers & Amplifiers



**EURO-STYLE
TERMINAL BLOCKS**

Material: Polyamide, heat proof, flame resistant.
Terminal Belts: Nickel Plated Brass.
Temp Range: -40°C to 105°C (-40°F to 221°F).
Flame Resistance: UL 94 V-2.

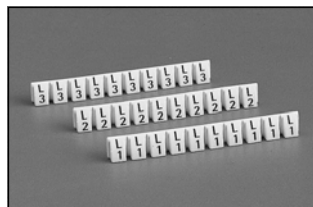


159 E and 159 ED features a more flexible insulator material and pre-formed slots for marking strips.

Part #	Wire Range	V	A (Amps)	d	e	A	B	C	D	Box Qty.
159 E	12-18 AWG	600	27	.139	.394	4.606	.881	.685	.275	10
159 ED w/wire guard	12-18 AWG	600	27	.139	.394	4.606	.881	.685	.275	10

“D” denotes wire guard model

Part #	Tab Marking	Box Qty.
BEZ.L	L	10
BEZ.L1	L1	10
BEZ.L2	L2	10
BEZ.L3	L3	10
BEZ.N	N	10
BEZ.PE	PE	10
BEZ.01	1	10
BEZ.02	2	10
BEZ.03	3	10
BEZ.04	4	10
BEZ.05	5	10
BEZ.06	6	10
BEZ.07	7	10
BEZ.08	8	10
BEZ.09	9	10
BEZ.10	10	10
BEZ.11	11	10
BEZ.12	12	10



BEZ marking inserts for the 159 E and 159 ED Terminal Strips.

Markers press fit into the terminal, making your identification needs a snap!



Applications:
Security Systems
Fire Alarm Systems
 HID Lighting
 Lighting Controls
 Heat Pumps
 Air Conditioners
 Environmental Controls
 Cable TV Industry
 Instrument OEM's
 RV & Trailer OEM's
 Electronics
 Speakers & Amplifiers

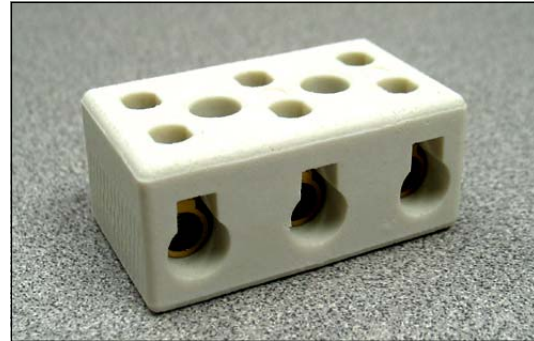


**PORCELAIN HI-TEMP
TERMINAL BLOCKS**

Housing Material: Porcelain KER 111

Nominal Voltage: 450 V

Temp Range: up to 230°C (446°F),
Short Term 280° C (536°F).

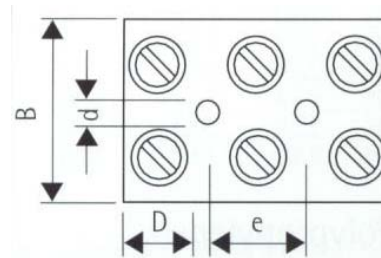
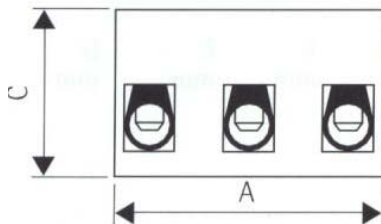


Solid, high temperature construction great for use in appliances or high temp kiln's.



Part #	# of poles	Wire Range	V	A (Amps) Max wire	d (mm)	e (mm)	A (mm)	B (mm)	C (mm)	Box Qty.
115	2	8-6 AWG	450	63	5.0		34.0	30.5	22.5	50
116	3	8-6 AWG	450	63	5.0	18.5	52.0	30.5	22.5	25
117	2	10-8 AWG	450	50	3.3		21.0	21.0	17.2	100
117 D*	2	10 AWG	450	50	3.3		21.0	21.0	17.2	100
118	3	10-8 AWG	450	50	3.3	11.5	32.8	21.0	17.2	100
118 D*	3	10 AWG	450	50	3.3	11.5	32.8	21.0	17.2	100
127	2	14-10 AWG	450	32	4.1		20.5	21.0	15.5	100
127 SEV	2	14-10 AWG	450	32	4.1		22.5	20.5	16.2	100
1127	2	14-10 AWG	450	32	4.5		20.8	17.6	15.2	100
128	3	14-10 AWG	450	32	4.5	12.5	35.5	21.0	17.5	100
1128	3	14-10 AWG	450	32	4.5	11.8	32.9	18.4	16.0	100

* Indicates wire guard version



**GROUNDING BARS –
ISOLATED GROUND**

Cover & Base Material: Durable, flame resistant Polyamide 6.6, V0 rated. Halogen Free.

Clamping Rail: Constructed of corrosion resistant, nickle-plated, copper.

Rated Voltage: UL Listed for 600 V max.

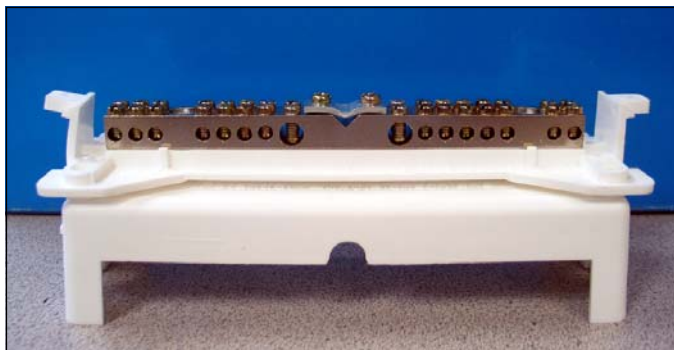
A cost effective, finger safe alternative for grounding that mounts easily to any flat surface.



1309 Series

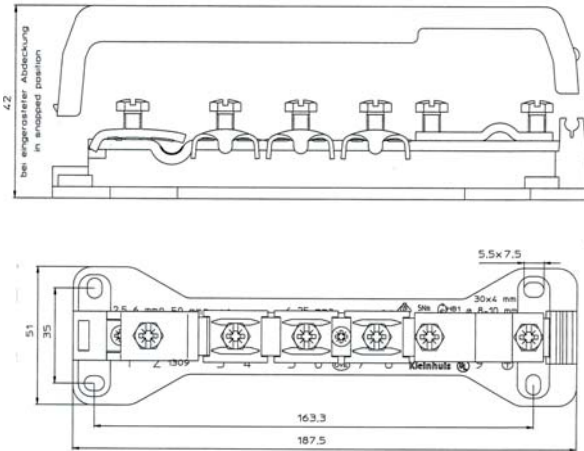


2309 Series



Provides grounding for:

- Control Panels / Sub-panels
- Telecommunications Systems
- Hospital / Medical Equipment
- Computer Racks
- Security Systems
- Radio Antenna Ground
- Added Grounding requirements
- Video Equipment Systems
- Marine applications
- Electronic Cash Register ground
- Wire Trunking Ground
- Assorted Voice / Data Systems
- Amateur Radio Equipment



Part #1309

UL listed, CSA Approved

Corrosion Resistant , nickel plated, copper clamping rail.

Handles # 4 to # 12 solid & stranded wire (AWG).

Protective hinged cover & base included.

Lay-in style for larger wire applications.

600 V Max. Great for all your low voltage applications.

Part #2309

UL listed, CSA approved.

600 V max.

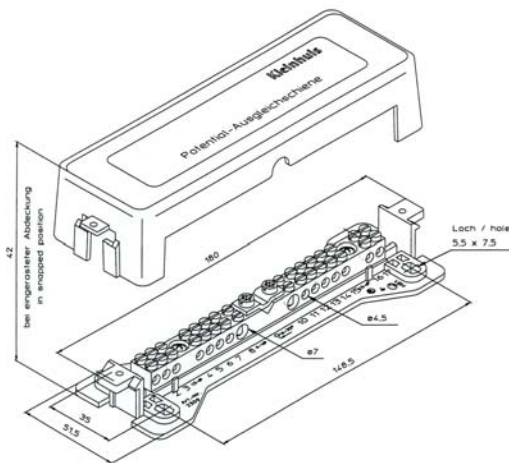
Corrosion resistant, nickel plated, copper clamping rail.

#6 – #16 solid copper wire (AWG).

#6 – #10 stranded copper wire (AWG).

Protective snap-on cover & base included.

14 poke-thru w/set screws, 1 lay-in for larger common ground.



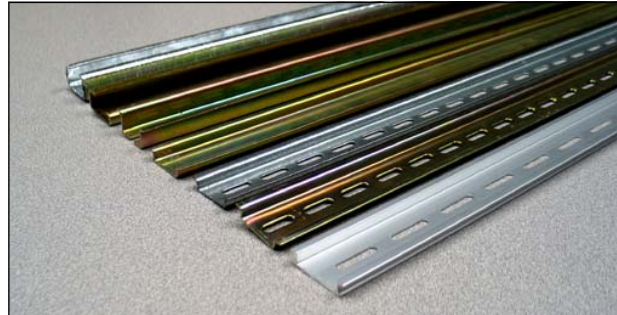
DIN Rail

DIN EN 50 022

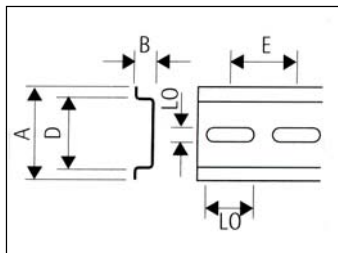
Material*: Steel, Galvanized & Yellow Chromated.

Standard Length*: 6'6" (2 meters)

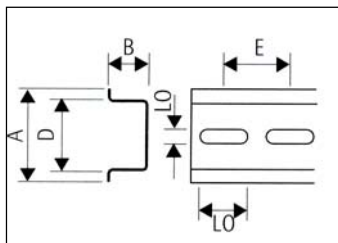
Slotted and solid bottom rail available.



Part #	Material Thickness (mm)	A (mm)	B (mm)	D (mm)	E (mm)	LO (slot) (mm)	Material*	Standard Length*
1536/2	1.5	35	7.5	27	-	-	Galvanized Steel, Yellow Chromate	2 m
1536LO/2 Slotted	1.5	35	7.5	27	25	18 x 5.2	Galvanized Steel, Yellow Chromate	2 m
1536ALO/1 Slotted	1.5	35	7.5	27	25	18 x 5.2	Aluminum	1 m
536/2	1.0	35	7.5	27	-	-	Galvanized Steel	2 m
536LO/2 Slotted	1.0	35	7.5	27	25	18 x 5.2	Galvanized Steel	2 m
537/2	1.5	35	15	27	-	-	Galvanized Steel, Yellow Chromate	2 m
537LO/2 Slotted	1.5	35	15	27	25	18 x 5.2	Galvanized Steel, Yellow Chromate	2 m



Models: 1536LO/2, 1536ALO/1, 536LO/2, 1536/2, 536/2



Models: 537/2, 537LO/2



DIN Rail Applications

Security & Alarm Systems

Commercial and Residential

Buildings

Control Panels

Marine Installations

Material: Rigid PVC, Lead and Cadmium free, stabilized.

Temp Range: Permanent -5°C to 50°C (-23°F to 122°F).

Standard Length: 2 Meters (6' -6")

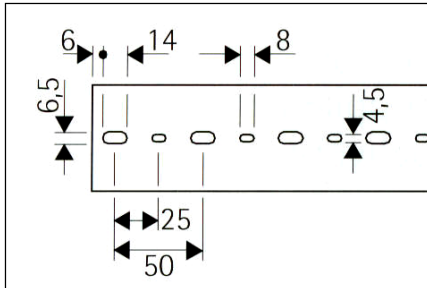
Flame Resistance: UL 94 V0

Tested in accordance to: DIN EN 50085-1:1998-04, DIN EN 50085-2-3:1998-08 and UL 1565 "Positioning devices".

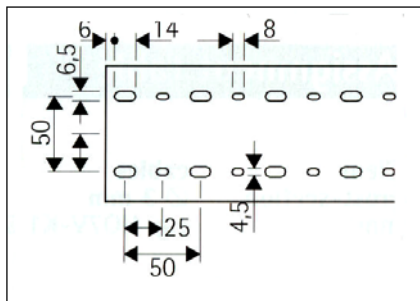
Standard Colors: Grey or White



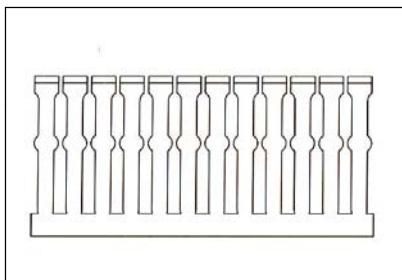
Nominal Size W x H (in.)	Part # Grey	Part # White	Actual Size W x H (in.)	Actual Size W x H (mm)	Standard Length	Carton Qty.
1 x 1	VK 3030	VK 3030.03	1.2 x 1.2	30 X 30	2 M	64 M
1 x 1.5	VK 4030	VK 4030.03	1.2 x 1.6	30 X 40	2 M	60 M
1 x 2	VK 6030	VK 6030.03	1.2 x 2.4	30 x 60	2 M	72 M
1 x 3	VK 8030	VK 8030.03	1.2 x 3.15	30 x 80	2 M	56 M
1 x 4	VK 10030	VK 10030.03	1.2 x 3.9	30 x 100	2 M	32 M
1.5 x 1.5	VK 4040	VK 4040.03	1.6 x 1.6	40 x 40	2 M	32 M
1.5 x 2.0	VK 6040	VK 6040.03	1.6 x 2.4	40 x 60	2 M	48 M
1.5 x 3	VK 8040	VK 8040.03	1.6 x 3.15	40 x 80	2 M	40 M
2 x 1.5	VK 4060	VK 4060.03	2.4 x 1.6	60 x 40	2 M	48 M
2 x 2	VK 6060	VK 6060.03	2.4 x 2.4	60 x 60	2 M	36 M
2 x 3	VK 8060	VK 8060.03	2.4 x 3.15	60 x 80	2 M	36 M
2 x 4	VK 10060	VK 10060.03	2.4 x 3.9	60 x 100	2 M	24 M
3 x 2	VK 6080	VK 6080.03	3.15 x 2.4	80 x 60	2 M	32 M
3 x 3	VK 8080	VK 8080.03	3.15 x 3.15	80 x 80	2 M	24 M
4 x 2	VK 60100	VK 60100.03	3.9 x 2.4	100 x 60	2 M	24 M
4 x 3	VK 80100	VK 80100.03	3.9 x 3.15	100 x 80	2 M	24 M
4 x 4	VK 100100	VK 100100.03	3.9 x 3.9	100 x 100	2 M	16 M
5 x 2	VK 60120	VK 60120.03	4.70 x 2.4	120 x 60	2 M	20 M
5 x 3	VK 80120	VK 80120.03	4.70 x 3.15	120 x 80	2 M	16 M



1-row base boring conforming to DIN 43 659 for duct widths up to 60 mm (2”).



2-row base boring conforming to DIN 43 659 for duct widths 75 mm or larger (3”).



Side Slot view VK wiring duct:
Slot width 5 mm.
Segment width 7.5 mm.

Features & Benefits:

Tabs / “Fingers” are pre-scored for easy removal. No tools required.

Made out of durable, rigid PVC.

Clean wire management installations.

Latching, flush mount, no-slip cover included.

Low minimum order requirement of 1 piece + included cover = less line items to inventory.

Applications & Markets:

Control Panels

Data / Computer rooms

Security / Video installations

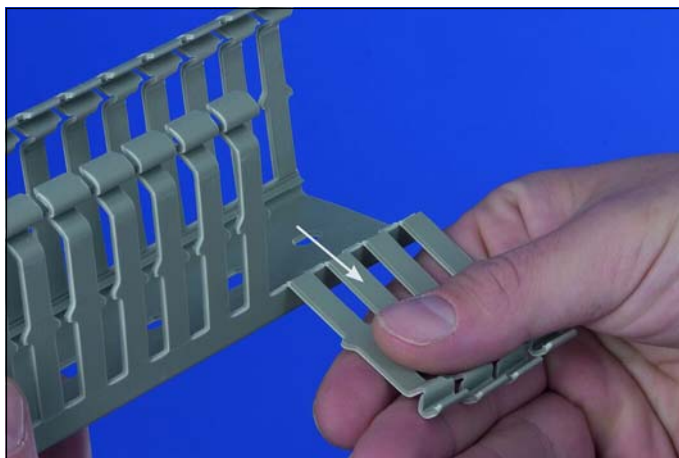
Electric Utilities

OEM’s and General industrial Markets

Electrical Contractors

Telecommunications

MRO’s and many other specialized applications



RO-CLIP Pipe & Conduit Clamps

Material: Polypropylene, halogen free.

Color: Light Grey

Temperature range: -20° C to 90° C
(-4° F to 194° F).



Part #	PVC Schedule 40 Pipe	PVC Schedule 80 Pipe	Rigid Conduit	IMC	ENT	Metallic Flexible Conduit	Non-Metallic Flexible Conduit	Non-Metallic Extra-Flexible Conduit	Box Qty.
796.130	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	100
796.231	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	100
796.291	1"	1"	1"	1"	1"	1"	1"	1"	50
796.401	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	50
796.360	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	25
796.480	2"	2"	2"	2"	2"	2"	2"	2"	25

Part #	EMT	Box Qty.
796.110	1/2"	100
796.160	3/4"	100
796.210	1"	100
796.361	1-1/4"	50
796.421	1-1/2"	25
796.420	2"	25

RO-CLIP Features:

Unique design allows for the attachment of several clips of various size for multi pipe runs. For example; you can place a 1/2" pipe next to a 2" and make a clean level installation.

The RO-CLIP can be used for vertical or horizontal applications.

Low installation force required, easy to use.

High retention strength.

Convert From	Convert To	Multiply By
Angle		
degree	radian (rad)	0.01745329
radian (rad)	degree	57.295780
Area		
foot ²	square meter (m ²)	0.09290304
inch ²	square meter (m ²)	0.0064516 x 10 ⁻²
circular mil	square meter (m ²)	0.00005067075 x 10 ⁻²
sq. centimeter (cm ²)	square inch (in ²)	0.15500030
square meter (m ²)	foot ²	10.763910
square meter (m ²)	inch ²	1550.0030
square meter (m ²)	circular mil	1973523000.0
Temperature		
degree Fahrenheit	degree Celsius	$t^{\circ}\text{C} = (t^{\circ}\text{F} - 32) / 1.8$
degree Celsius	degree Fahrenheit	$t^{\circ}\text{F} = 1.8t^{\circ}\text{C} + 32$
Length		
foot (ft)	meter (m)	0.30480
inch (in)	meter (m)	0.02540
mil	meter (m)	0.002540 x 10 ⁻³
inch	micrometer (μm)	25400.0
millimeters	inch (in)	0.039370
meter (m)	foot (ft)	3.280840
meter (m)	inch (in)	39.370080
meter (m)	mil	39370.0080
micrometer (μm)	inch (in)	0.039370080 x 10 ⁻³



NOTES _____



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