Insul-8® 8-Bar Design Features

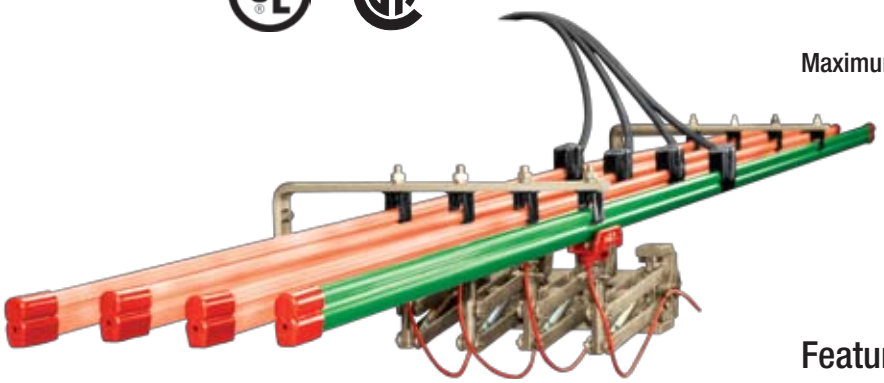
Your Order Security Guaranteed by: PayPal
Buy Now!

Conductix-Wampfler "Insul-8® 8-Bar"was invented by Insul-8 Corporation over 60 years ago. This is the *original* "figure 8" conductor bar system! This innovative system provided the first safe, insulated electrification solution for cranes, monorails, hoists, conveyors, and many other applications. Thousands of miles of 8-Bar are in use all around the world. There are many "copy cat" systems around. Don't settle for imitations; insist on the original 8-Bar system!

Insul-8® 8-Bar is Ideal for:

- Small/Medium sized cranes
- Conveyors
- Monorails
- Hoists
- Tightly curved systems
- Other mobile power applications

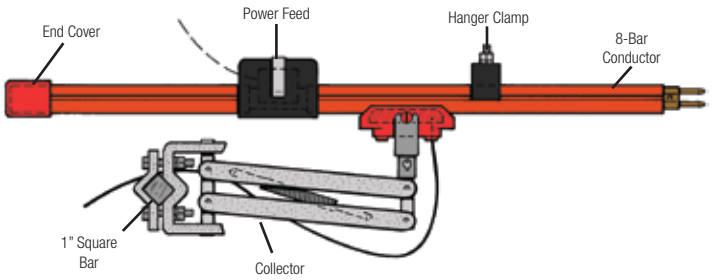
UL and CSA Listed



Current range: 40A, 90A, 110A, 250A, 350A, 500A @ 600 volts max.

Maximum Speed: 900 ft/min (274 meters/min)

Basic 8-Bar Components



Power Feed: Conducts the power source to the conductor bar

Collector: "Collects" power from the bar and transfers it to the moving machine. Connects to a 1" mounting staff

Hanger Clamp: Supports the conductor bar

End Cover: Caps off the end of the conductor bar

Bracket: Attaches to crane beam or other structure to support multiple hangers

Anchor Clamp: Connects the bar to the structure and directs movement of the conductors during thermal expansion/contraction

Features

- Designed and built in the USA under stringent ISO 9001:2000 standard
- In stock availability for quick shipment
- A large number of special options and adaptations developed over 60 years of usage to handle numerous industrial situations.
- The ability to be curved into a tighter radius than most other systems.
- Knurled joint pins for secure joints. Won't pull apart under normal conditions when properly installed.
- Backed by the best customer service and engineering services in the industry.

Installs Quickly and Easily

- Minimum number of basic parts
- Quick "pin-style" splice joints
- Bar snaps into mating hanger

Many Options

- Stainless steel hardware
- Green bonding (ground) conductor covers
- Black "UV stable" outdoor covers
- Curved systems with low heat cover; can be curved to 18" minimum radius with the bar profile vertical (i.e. the "easy" way) or 45" the "hard way" (low heat cover).

INDUSTRIAL POWER & CONTROL
ENERGY SOLUTIONS FOR CRANES, HOISTS & MONORAILS

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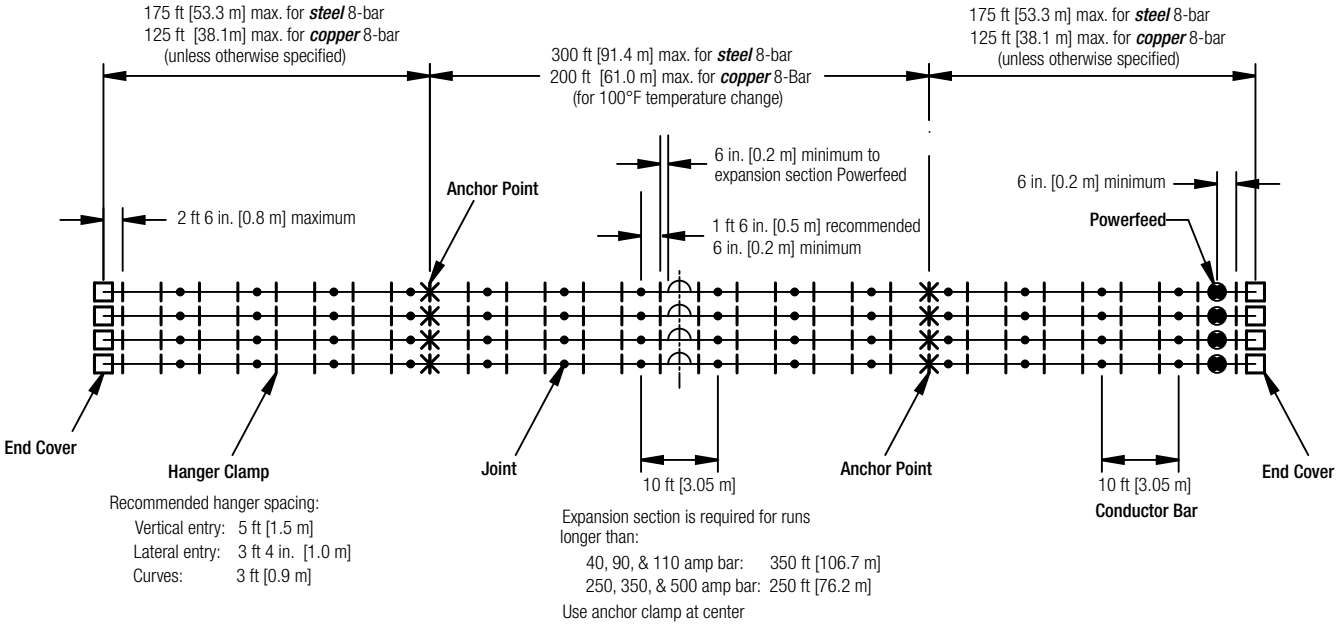
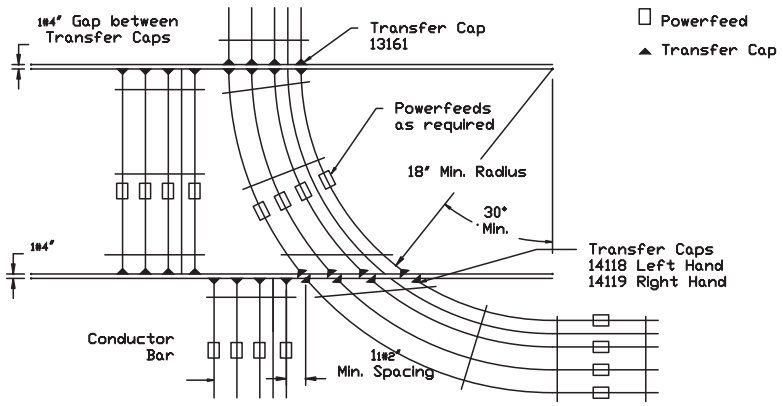
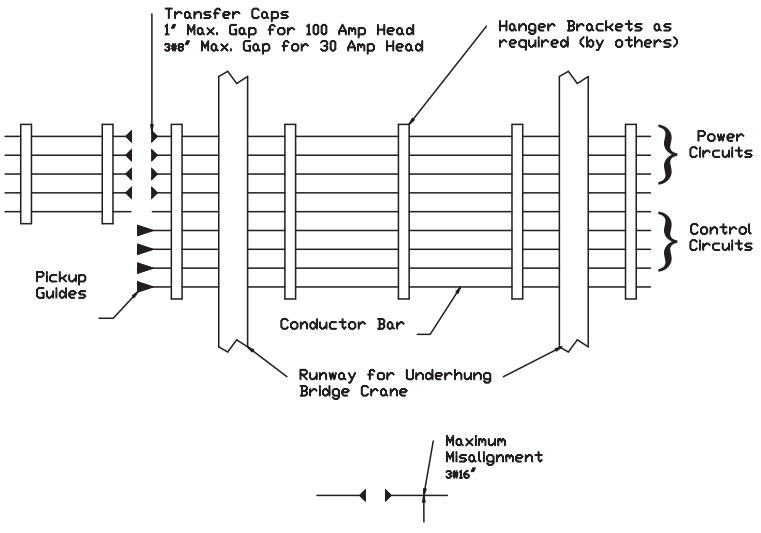
8-Bar Typical 4-Bar Layouts



2-WAY STUB SWITCH



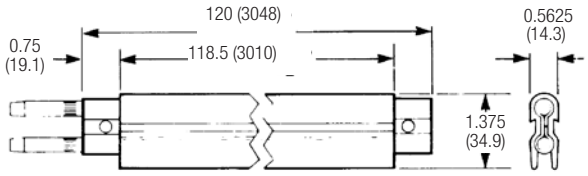
BRIDGE CRANE INTERLOCK



8-Bar Specifications

Conductor Bar Information

Please use the Specification Data Sheets on Pgs. 6-7 and the information in Appendices I through III at the back of this catalog to determine your conductor bar needs. Consult Conductix-Wampfler Sales if you have any questions about the suitability of this product to your application.



Part No. 11000

Roll formed of 1/16" (1.59 mm) material except laminates which are 1/32" (0.79 mm) copper, steel, or stainless steel, and the 90 A galvanized bar. The cross-section area is 188 mcm (95 mm^2); except solid copper bar which is 313 mcm (158 mm^2). The equivalent rectangle for all conductors is 1" x 1/4" (25.4 x 6.3 mm). Supports are required every 3 feet (0.91m) for curves, 3 feet 4 inches (1.01m) for lateral mount, and 5 feet (1.52m) standard. Joint covers and joint keepers are furnished with each order as required.

Assembled with Connector Pins and Cover								Micro-ohms per foot *		
Part No.										
Material	Lgth ft (m)	w/PVC Cover	w/Med Heat Cover	w/High Heat Cover	Expansion Coefficient in./in./^{0}F	Nominal Wt lb/ft (kg/m)	Max. Amps (cont duty)	Resist. R (DC)	Reac-tance X (60 Hz, 3-phase	Imp. Z (60 Hz)
Stainless Steel	10 (3.05)	**14299**	**24304**	**24307**	.000007	0.72 (0.0995)	40	2230	60	2231
Galvanized Steel	10 (3.05)	**22135**	**22141**	**22147**	.000007	0.46 (0.0636)	90	750	600	960
Galvanized Steel	10 (3.05)	**11000**	**11019**	**11038**	.000007	0.65 (0.0899)	110	354	600	702
Stainless Clad Copper Laminate	10 (3.05)	**11004**	**11023**	**11042**	.000009	0.65 (0.0899)	250	100	60	116
Copper Steel Laminate	10 (3.05)	**11008**	**11027**	**11046**	.000009	0.65 (0.0899)	250	100	60	116
Rolled Copper	10 (3.05)	**11012**	**11031**	**11050**	.000009	0.76 (0.1051)	350	60	60	84
Solid Copper	20 (6.10)	**11016**	**11035**	**11054**	.000009	1.16 (0.5262)	500	40	60	70

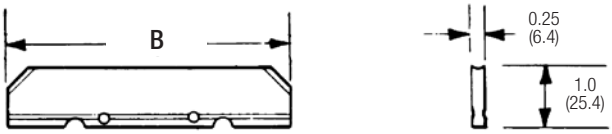
✱ Example: 0.000060 ohms/ft. X values are calculated at 3 inch center-line spacing, adjusted for three conductors with multiplier 1:26 a nominal permeability m of 10-12 is used for the steel conductor calculations. For reference, $X = m\ 52.9 \log 10^{3} \times \frac{1.26 + 34.5.}{1250}$ $Z = \sqrt{R^2\ 1\ X^3}$

Collector Shoe Information

30 Amps

Contoured Shoe: 18.0 (457) Minimum Radius

100 Amps



Contoured Shoe: 48.0 (1219) Minimum Radius

Standard collector shoe material is sintered copper graphite (CG).

Current Rating (Amps)	"B" Lgth in. (mm)	Description	Part No.
30	3.00 (73)	CG	**13136**
20	3.00 (73)	Carbon	**13137**
30	3.00 (73)	Cast Iron	**13138**
30	3.00 (73)	Insuloy	**19678**
60	3.00 (73)	CG	**11154**
30	3.00 (73)	Carbon	**11155**
60	3.00 (73)	Cast Iron	**11156**
100	4.75 (121)	CG	**11157**
50	4.75 (121)	Carbon	**11158**
100	4.75 (121)	Cast Iron	**11159**
100	4.75 (121)	Insuloy	**19347**

8-Bar Conductors

8-Bar conductor bars come with cover and connector pins installed. Bars are available in 40A, 90A, 110A, 250A, 350A, 500A capacities (@ 600 volts maximum). Expansion Sections are listed below. These are required to compensation for thermal expansion; every 350 feet (106.7 m) for 40A, 90A, and 100A systems or 250 feet (76.2 m) for 250A, 350A, and 500A systems. Power Feeds bring outside power to the conductor bar.

Factory installed covers are available in:

- **Rigid PVC:** -10^0 F to 160^0 F (- 23.3^{0}C to 71.1^{0}C)
- **Medium Heat:** - 25^0 F To 250^0 F (- 31.7^{0}C to 121.1^{0}C)
- **High Heat:** - 60^0 F To 400^0 F (-51.1^{0}C to 204.2^{0}C)

Stainless Steel, 40A

Item	Rigid PVC Cover		Med Heat Cover		High Heat Cover	
	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)
Conductor Bar, 10 ft (3.05 m)	**14299**	7.0 (3.18)	**24304**	6.6 (2.29)	**24307**	7.5 (3.40)
Conductor Bar, 5 ft (1.52 m)	**14823**	3.5 (1.59)	**24305**	3.3 (1.50)	**24308**	3.8 (1.72)
Expansion Section, 10 ft (3.05 m)	**24279**	7.5 (3.40)	**24306**	7.0 (3.18)	**24309**	8.2 (3.72)
Power Feed	**11091**	0.4 (0.18)	**11091**	0.4 (0.18)	**11122**	0.4 (0.18)
End Cover	**11088**	0.1 (0.05)	**11088**	0.1 (0.05)	**11633**	0.1 (0.05)

Galvanized Steel, 90A

Item	Rigid PVC Cover		Med Heat Cover		High Heat Cover	
	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)
Conductor Bar, 10 ft (3.05 m)	**22135**	4.4 (2.00)	**22141**	4.1 (1.86)	**22147**	4.9 (2.22)
Conductor Bar, 5 ft (1.52 m)	**22136**	2.2 (1.00)	**22142**	2.1 (0.95)	**22148**	2.5 (1.14)
Expansion Section, 10 ft (3.05 m)	**22140**	6.7 (3.31)	**22146**	6.3 (2.86)	**22152**	7.4 (3.36)
Power Feed	**11091**	0.4 (0.18)	**11091**	0.4 (0.18)	**11122**	0.4 (0.18)
End Cover	**22070**	0.1 (0.05)	**22070**	0.1 (0.05)	**11633**	0.1 (0.05)

Galvanized Steel,110A

Item	Rigid PVC Cover		Med Heat Cover		High Heat Cover	
	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)
Conductor Bar, 10 ft (3.05 m)	**11000**	4.4 (2.00)	**11019**	4.1 (1.86)	**11038**	4.9 (2.22)
Conductor Bar, 5 ft (1.52 m)	**11001**	2.2 (1.00)	**11020**	2.1 (0.95)	**11039**	2.5 (1.13)
Expansion Section, 10 ft (3.05 m)	**11057**	6.7 (3.31)	**11064**	6.3 (2.86)	**11070**	7.4 (3.36)
Power Feed	**11091**	0.4 (0.18)	**11091**	0.4 (0.18)	**11122**	0.4 (0.18)
End Cover	**11088**	0.1 (0.05)	**11088**	0.1 (0.05)	**11633**	0.1 (0.05)

8-Bar Conductors

Cover Temperature Ratings:
- Rigid PVC: -10^0 F to 160^0 F (- 23.3^{0}C to 71.1^{0}C)
- Medium Heat: - 25^0 F To 250^0 F (- 31.7^{0}C to 121.1^{0}C)
- High Heat: - 60^0 F To 400^0 F (-51.1^{0}C to 204.2^{0}C)

Stainless Clad Copper, 250A

Item	Rigid PVC Cover		Med Heat Cover		High Heat Cover	
	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)
Conductor Bar, 10 ft (3.05 m)	**11004**	6.6 (2.99)	**11023**	6.2 (2.81)	**11042**	7.1 (3.22)
Conductor Bar, 5 ft (1.52 m)	**11005**	3.3 (1.47)	**11024**	3.1 (1.41)	**11043**	3.6 (1.63)
Expansion Section, 10 ft (3.05 m)	**11059**	8.5 (3.86)	**11065**	8.0 (3.63)	**11071**	9.2 (4.17)
Power Feed	**11092**	0.7 (0.32)	**11092**	0.7 (0.32)	**11093**	0.7 (0.32)
End Cover	**11088**	0.1 (0.05)	**11088**	0.1 (0.05)	**11633**	0.4 (0.18)

Copper Steel Laminate, 250A

Item	Rigid PVC Cover		Medium Heat cover		High Heat Cover	
	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)
Conductor Bar, 10 ft (3.05 m)	**11008**	6.2 (2.81)	**11027**	5.8 (2.63)	**11046**	6.7 (3.04)
Conductor Bar, 5 ft (1.52 m)	**11009**	3.1 (1.41)	**11028**	2.9 (1.32)	**11047**	3.4 (1.54)
Expansion Section, 10 ft (3.05 m)	**11060**	10.0 (4.54)	**11066**	9.4 (4.26)	**11072**	10.8 (4.90)
Power Feed	**11092**	0.7 (0.32)	**11092**	0.7 (0.32)	**11093**	0.7 (0.32)
End Cover	**11088**	0.1 (0.05)	**11088**	0.1 (0.05)	**11633**	0.4 (0.18)

Rolled Copper, 350A

Item	Rigid PVC Cover		Medium Heat Cover		High Heat Cover	
	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)
Conductor Bar, 10 ft (3.05 m)	**11012**	7.0 (3.18)	**11031**	6.6 (2.99)	**11050**	7.5 (3.40)
Conductor Bar, 5 ft (1.52 m)	**11013**	3.5 (1.59)	**11032**	3.3 (1.50)	**11051**	3.8 (1.72)
Expansion Section, 10 ft (3.05 m)	**11062**	11.0 (4.99)	**11068**	11.0 (4.99)	**11074**	11.8 (5.35)
Power Feed	**11092**	0.7 (0.32)	**11092**	0.7 (0.32)	**11093**	0.7 (0.32)
End Cover	**11088**	0.1 (0.05)	**11088**	0.1 (0.05)	**11633**	0.4 (0.18)

Solid Copper, 500A

500 amp solid copper bar includes copper connector clamp rather than connector pins - See Pg. 15.

Item	Rigid PVC Cover		Medium Heat Cover		High Heat Cover	
	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)	Part No.	Wt lb (kg)
Conductor Bar, 20 ft (6.10 m)	**11016**	23.6 (10.71)	**11035**	22.1 (10.02)	**11054**	24.6 (11.16)
Conductor Bar, 10 ft (3.05 m)	**11017**	11.8 (5.35)	**11036**	11.0 (4.99)	**11055**	12.3 (5.58)
Expansion Section, 10 ft (3.05 m)	**11063**	18.5 (3.39)	**11069**	17.3 (7.85)	**11075**	20.0 (9.07)
Power Feed	**11094**	2.6 (1.18)	**11094**	2.6 (1.18)	**11094**	2.6 (1.18)
End Cover	**12171**	0.2 (0.09)	**11633**	0.2 (0.09)	**11633**	0.4 (0.18)

8-Bar Replacement Covers, Connectors, & Joint Covers

Replacement 8-Bar Covers

Meets all requirements for plastic electrical insulation and may be used indoors or outdoors. Covers are included with the conductors listed on Pgs. 12-13.

Replacement length is 9 ft to 10.5 ft. (2.74m to 3.20m)

Material	Color	Temp-Rating	Part No.	Wt lb (kg)
Rigid PVC	Orange	-10^0 F to 160^0 F	**11114**	1.2 (0.54)
Rigid PVC	Green	-10^0 F to 160^0 F	**11114G**	1.2 (0.54)
UV Stable PVC	Black	-10^0 F to 160^{0}F	**11114B**	1.2 (0.54)
Medium Heat Lexan	Red	-25^0 F to 250^0 F	**11115**	0.8 (0.36)
High Heat Polyester	Dark Orange	-60^0 F to 400^0 F	**11116**	1.7 (0.77)

Replacement Connector Pins

21914

11120

Used to connect two bar sections together. For quick and easy installation. Supplied with conductors listed on Pgs. 12-13. Two required per connection.

Pin Used With:	Material	Part No.
Stainless steel 40A 8-Bar	Stainless steel	**24196**
Galvanized steel 90A 8-Bar	Zinc plated steel	**21914**
Galvanized steel 110A 8-Bar	Zinc plated Steel	**11120**
Rolled copper and laminated 8-Bar	Copper	**11121**
3 in. (76mm) Transition Pin: For joining 90 to 110A 8-Bar	Zinc plated steel	**22885**

Joint Covers

Insulated protective covers for conductor bar joining parts. Automatically included with the conductors on Pgs. 12-13 at a nominal charge.

Used with:	Part No.	Wt lb (kg)
40A to 350A Rigid PVC Cover	**13601**	0.1 (0.05)
40A to 350A Medium Heat Cover	**13600**	0.1 (0.05)
40A to 350A High Heat Cover	**11123**	0.4 (0.18)

8-Bar Joint Parts & Tools

Copper Connector Clamp and Case

To connect 500A solid copper conductor together. For all cover types.

11117 (Shown with only half of the cover)

Description	Part No.	Wt lb (kg)
Complete Assembly for Solid Copper 8-Bar	**11117**	1.5 (0.68)
Connector Case Only	**11118**	0.5 (0.23)
Connector Clamp Only	**11119**	1.0 (0.45)

Joint Keeper

To secure and stabilize all copper conductor bar. Automatically included with the appropriate system at a nominal charge.

Used With:	Part No.	Wt lb (kg)
Rolled or laminated copper 8-Bar, 250A and 350A	**11125**	0.01 (0.004)

Joint Repair Kit

To repair joints of damaged conductor bar.

24632 (Shown with only half cover)

Used For:	Part No.	Wt lb (kg)
40A to 350A formed 8-Bar	**24632**	0.7 (0.32)
High Heat Systems	**51666**	0.7 (0.32)

Connector Pin Tool

Inserts into pre-punched holes of the conductor bar to pull conductor sections together securely. Supplied with the appropriate system at a nominal charge.

Used with:	Part No.	Wt lb (kg)
40A to 350A 8-Bar Conductors	**11134**	2.3 (1.04)

8-Bar End Covers & Power Feeds

End Cover

For covering the exposed ends of 8-Bar Conductors.

11088

Used With 8-Bar Conductors:	Max. Temp. ^{0}F (^{0}C)	Part No.	Wt lb (kg)
40A, 110A, and 350A	300 (149)	**11088**	0.03 (0.02)
90A	400 (204)	**22070**	0.03 (0.02)
110A, 250A, 350A	400 (204)	**11633**	0.03 (0.02)
500A Solid Copper	160 (71)	**12171**	0.40 (0.02)
500A Solid Copper w/ Stainless Steel Hardware	160 (71)	**27102**	0.40 (0.02)

Power Feeds

Provides attachment of incoming power to the conductor rails. Fully insulated, simple clamp design for easy installation anywhere on the system.

11091

Current Cap.	Clamp Matl	Case Matl	Max. Temp ^{0}F (^{0}C)	Part No.	Wt lb (kg)
90 or 110	Steel	Rigid PVC	160 (71)	**11091**	0.4 (0.18)
90 or 110	Steel	Polyester	400 (204)	**11122**	0.4(0.18)
250	Copper	Rigid PVC	160 (71)	**11092**	0.7 (0.32)
250	Copper	Polyester	400 (204)	**11093**	0.7 (0.32)
500	Copper	Polyester	400 (204)	**11094**	2.60 (1.19)
250	Copper Clamp w/Stainless Steel Hardware	Rigid PVC	160 (71)	**27104**	0.7 (0.32)
500	Copper Clamp w/Stainless Steel Hardware	Polyester	400 (204.2)	**27106**	2.60 (1.19)

Power Feed Parts/Accessories

Description	Part No.	Wt lb (kg)
Case & clip only. PVC 90/110, 250A	**11131**	0.2 (0.09)
Case & clip only. High heat. 90/110, 250A	**11132**	0.3 (0.14)
Case only. High heat 500A	**11133**	1.0 (0.45)
Power Feed Clamp only. For Galvanized Steel, 90/110A	**11128**	0.1 (0.04)
Power Feed Clamp only. For Copper, 250A	**11129**	0.4 (0.18)
Power Feed Clamp only. For Copper, 500A	**11130**	1.6 (0.73)

8-Bar Expansions & Isolation Sections

Expansion Section

Required every 300 feet (94.1 m) for steel conductors or every 200 feet (61.0 m) for copper conductors to compensate for thermal expansion. Power feeds and flexible jumpers are factory installed to meet electrical and mechanical requirements of your system.

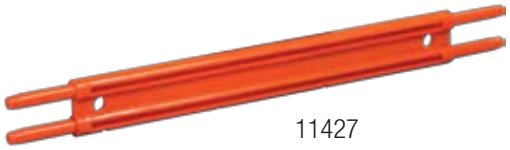
Note: Part numbers are located in the Conductor tables - See Pgs. 12-13.

Isolation Section

Conductor isolation sections are used to electrically isolate control circuits, maintenance bays, etc. The kit includes 11127 Guide Assembly, PVC Cover, and Isolation Section for 40A to 350A (not including 90A). Consult our factory for proper selection.

Part No.	Wt lb (kg)
21841	2.3 (1.04)

Isolation Section Parts



11427

11618

11127

Components used for in-field modification.

Description	Part No.	Wt lb (kg)
Molded plastic insulating piece; only for 21841	**11427**	0.3 (0.14)
Molded plastic 1" (25.4 mm) isolating pin. For 40-350A except for 90A; Two required per location.	**11615**	0.03 (0.01)
Molded plastic, 1" (25.4 mm) isolating pin. For 90A only. Two required per location.	**11618**	0.03 (0.01)
Galvanized Steel Guide Assembly. Provides rigid support at isolation areas.	**11127**	1.5 (0.68)

8-Bar Transfer Caps, Pickup Guides

Transfer Caps

Used in switches and interlocks to accomplish smooth collector transfer.

Item Description	Part No.	Wt lb (kg)
End Transfer cap for 90A bar.	**22070**	0.03 (0.01)
Left Transfer cap for 90A bar.	**22395**	0.03 (0.01)
Right Transfer cap for 90A bar.	**22396**	0.03 (0.01)
End Transfer cap for 40-350A bar	**13161**	0.03 (0.01)
Left-hand cap for 40-350A bar	**14118**	0.03 (0.01)
Right-hand cap for 40-350A bar	**14119**	0.03 (0.01)

Pick-Up Guides

13142

The Pick-up Guide allows the collector to leave the conductor and re-track upon return. Requires use of Self-Centering J-Head Collectors, see Pgs. 24-25. Consult Factory for selection.

Used:	Part No.	Wt lb (kg)
Indoors, for 3” bar spacing	**13142**	1.75 (0.79)
Indoors, for 4” bar spacing	**11089**	1.75 (0.79)
Outdoors, for 3” bar spacing	**13143**	2.00 (0.91)
Outdoors, for 4” bar spacing	**11090**	2.00 (0.91)

8-Bar Hanger and Anchor Clamps

Polycarbonate Snap-in Hanger Clamps

22800 24405

Hanger Clamps are designed to grip 8-Bar Conductors for stable support. Clamps are required every 5 foot (1.52m) standard. These Polycarbonate Snap-in Hanger Clamps are recommended for standard mount only; not recommended for curves or lateral mount.

Type	Hardware	Part No.	Wt lb (kg)
Without Insulator	Zinc Plated	**22800**	0.3 (0.14)
Without Insulator	Stainless Steel	**23370**	0.3 (0.14)
With Insulator	Zinc Plated	**24405**	0.3 (0.14)
With Insulator	Stainless Steel	**28122**	0.3 (0.14)

Steel Snap-in Hanger Clamp

21600 22000

The spring-steel Hanger Clamps are designed to grip 8-Bar Conductors for stable support.

Clamps are required every 5 foot (1.52m) standard. Steel Snap-in Hanger Clamps are recommended for standard mounting; not recommended for curves or lateral mount.

Type	Part No.	Wt lb (kg)
Without Insulator	**21600**	0.2 (0.09)
With Insulator	**22000**	0.3 (0.4)

Cross-Bolt Hanger Clamp

11076 11082

Cross-Bolt Hanger Clamps are designed to lock to 8-Bar Conductors for stable support.

Hangers are required every 5’ for vertical entry, 3’ for curved systems and every 3’ 4” for lateral entry. Cross-Bolt Hanger Clamps are recommended for standard mounting, lateral mounting, and curved systems.

Type	Material	Part No.	Wt lb (kg)
Without Insulator	Plated Steel	**11076**	0.2 (0.11)
Without Insulator	Stainless Steel	**11078**	0.3 (0.14)
With Insulator	Plated Steel	**11082**	0.4 (0.18)
With Insulator	Stainless Steel	**11084**	0.4 (0.18)

Anchor Clamp

21833 21982

For standard mount, not recommended for curves or lateral mount.

Type	Material	Part No.	Wt lb (kg)
Without Insulator	Plated Steel	**21833**	0.3 (0.14)
Without Insulator	Stainless Steel	**28123**	0.3 (0.14)
With Insulator	Plated Steel	**21982**	0.5 (0.23)
With Insulator	Stainless Steel	**28124**	0.5 (0.23)

8-Bar Standard Brackets - Without Hangers

Web Bracket

22014

For top running, web-mounted, bottom entry systems. Zinc plated steel. See Pg. 19 for hangers.

Distance to First Hole:	Part No.	Wt lb (kg)
6.0 (152)	**22014**	2.4 (1.09)
9.0 (229); with three more holes - At 12.0 (305), 15 (381), and 18 (457)	**29876**	4.5 (2.04)

Flange Mount Brackets

27762

For bottom entry monorail and under-hung systems, flange-mounted. Zinc plated steel. See Pg. 19 for hangers.

Type	Part No.	Wt lb (kg)
For 2 hangers each side	**27762**	2.5 (1.13)
For 4 hangers on one side	**27767**	2.5 (1.13)

8-Bar Standard Brackets - With Hangers

Brackets w/Pre-Assembled Hanger Clamps

The following brackets come with hanger clamps on 3" centers, brackets are zinc plated steel. **Hanger Clamp styles are described on Pg. 19.**

Web Bracket # 34189 shown

With Polycarbonate Snap-In Hanger Clamps

	Without Insulators		With Insulators	
Description	**Part No.**	**Wt lb (kg)**	**Part No.**	**Wt lb (kg)**
Web type 5"	**28829**	2.0 (0.907)	**51004**	2.4 (1.09)
Web type 9"	**34189**	3.1 (1.402)	**50314**	3.5 (1.59)
Flange type, 2 hangers each side	**51864**	2.6 (1.179)	**51865**	3.1 (1.41)
Flange type, 4 hangers on one side	**51870**	2.6 (1.179)	**51871**	3.1 (1.41)

Steel Snap-In Hanger Clamps

	Without Insulators		With Insulators	
Description	**Part No.**	**Wt lb (kg)**	**Part No.**	**Wt lb (kg)**
Web type 6"	**30281**	1.6 (0.726)	**51005**	2.0 (0.91)
Web type 9"	**50312**	2.7 (1.225)	**50315**	3.1 (1.41)
Flange type, 2 hangers each side	**51866**	2.1 (0.953)	**51867**	2.5 (1.11)
Flange type, 4 hangers on one side	**51872**	2.1 (0.953)	**51873**	2.5 (1.11)

Flange Bracket # 51864 shown

Cross-Bolt Hanger Clamps

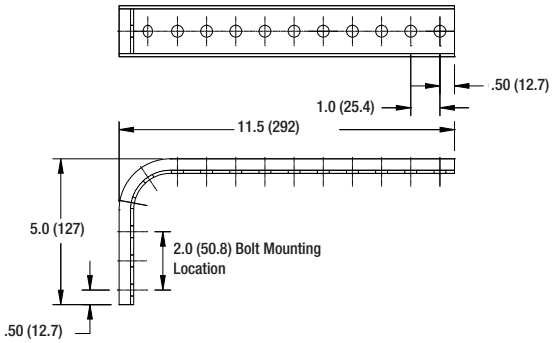
	Without Insulators		With Insulators	
Description	**Part No.**	**Wt lb (kg)**	**Part No.**	**Wt lb (kg)**
Web type 6"	**31762**	2.0 (0.907)	**29534**	2.3 (1.04)
Web type 9"	**50312**	3.1 (1.406)	**50316**	3.5 (1.59)
Flange type, 2 hangers each side	**51868**	2.5 (1.114)	**51869**	2.9(1.32)
Flange type, 4 hangers on one side	**51874**	2.5 (1.114)	**51875**	2.9 (1.32)

8-Bar Universal Brackets

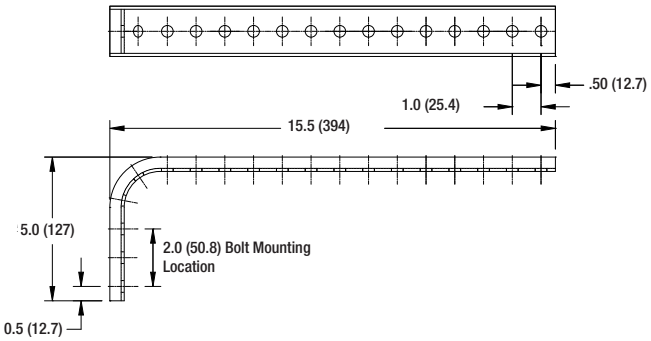
You can order pre-assembled brackets with your choice of hangers on Pg. 21. Or, if these hanger locations don't work for the application, the "Universal Brackets" shown below should address most special applications. Holes are drilled on 1.0 inch (25.4 mm) centers.

Type	Length	Part No.	Wt lb (kg)
Web Bracket, Short	11.5 (29)	**31409**	1.0 (0.45)
Web Bracket, Long	15.5 (39)	**31407**	1.3 (0.59)
Flange Bracket	18.0 (46)	**31408**	1.2 (0.54)
Flange Bracket with Beam Clips	18.0 (46)	**31418**	1.6 (0.73)
Flange Bracket with Beam Clips	24.0 (61)	**31911**	2.0 (0.91)

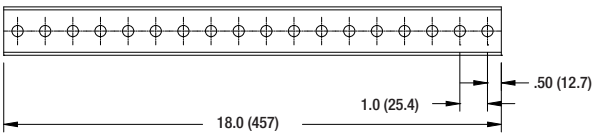
Web Bracket - Short (31409)



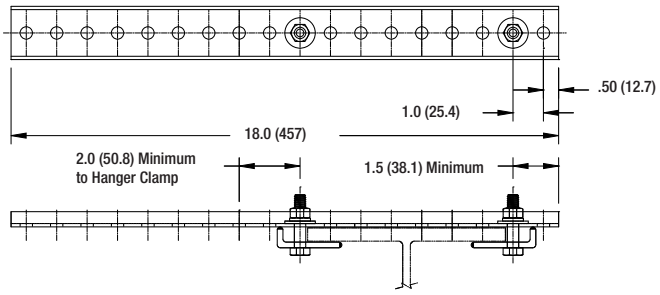
Web Bracket - Long (31407)



Flange Bracket (31408)



Flange Bracket with Clips (31418)



8-Bar Universal Brackets with Pre-assembled Hangers

Ordering Instructions:

1) Choose the desired bracket style by part number - See bracket styles below.

2) Also referring to the drawings below, choose the hole number locations at which hangers are to be assembled. Here is the recommended hanger spacing:

Recommended Minimum Conductor Bar Spacing

	Indoor, inch (mm)	Outdoor, inch (mm)
8 Bar (bottom entry)	2.0 (50.8)	3.0 (76.2)
Side Contact (Lateral Mount)	3.0 (76.2)	Not for outside use

For less than 2.0" (50.8 mm) spacing, consult factory

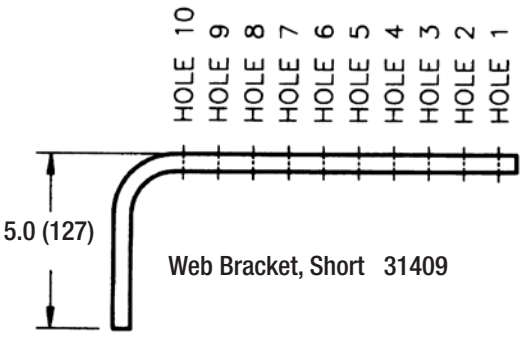
3) Select desired hanger type by part number - From Pg. 19.

Example Order lines:

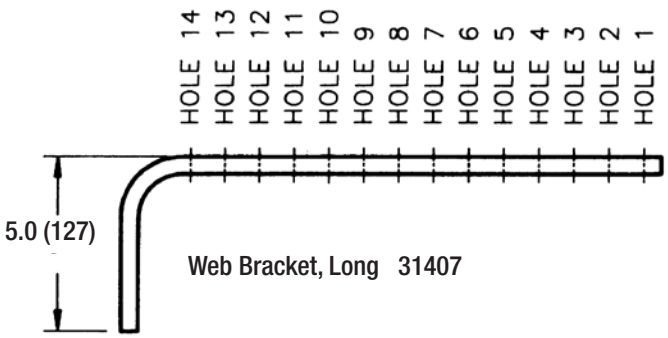
Qty	Part No. (Hole #'s) where hangers are to be mounted	Description
10	**31407 (1, 3, 5, 7)**	Web Bracket, Long (from below)
40	**22800**	Polycarbonate Snap Hanger (from Pg. 19)

Note: When order is received, a unique part number will be created for the requested bracket/hangers combination.

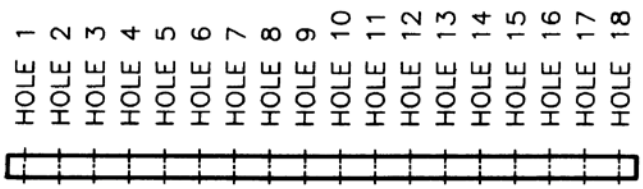
Bracket Hole Position Numbers: 1.0" (25.4 mm) Spacing Between Holes



Web Bracket, Short 31409



Web Bracket, Long 31407

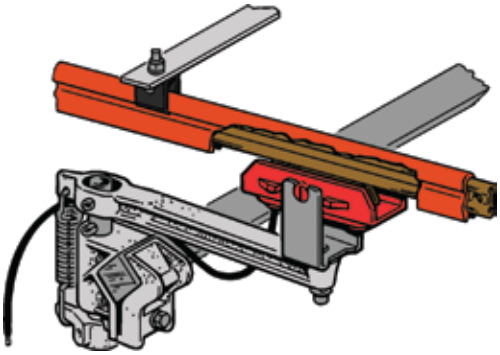


Flange Bracket: 31408

Flange Bracket with Beam Clips 31418

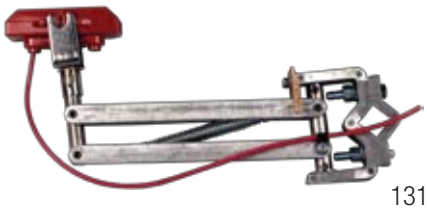
8-Bar Collector Assemblies

Sliding contact Collector Assemblies are offered in either single or double contact shoe types providing current capacities from 30A to 200A. Operational wear is confined to easily replaceable contact shoes. The shoes are supported by insulated holders on articulating, spring-loaded collector arms.



30A J-Head, C-Base Type

13128



13130

For systems up to 600 volts with straight runs and curves to 18" minimum radius. For lateral mount, consult factory. The "Self-Centering" versions are used with Pick-up Guides - See Pg. 18.

Type	Part No.	Wt lb (kg)
Standard Mount	**13128**	2.5 (1.13)
Tandem Standard Mount	**13082**	4.7 (2.13)
Self-Centering Standard Mount	**13130**	2.6 (1.180)
Self-Centering Tandem Standard Mount	**13084**	4.9 (2.22)

Replacement Shoe

30 amp replacement shoe	**13136**	0.4 (0.18)

30A J-Head, H-Base Type

13131

For systems up to 600 volts with straight runs and curves to 18" minimum radius. For lateral mount, consult factory. The "Self-Centering" versions are used with Pick-up Guides - See Pg. 18.

Description	Part No.	Wt lb (kg)
Standard Mount	**13131**	1.4 (0.64)
Self-Centering Standard Mount	**13132**	1.7 (0.77)

Replacement Shoe

30 amp replacement shoe	**13136**	0.4 (0.18)

8-Bar Collector Assemblies

100A J-Head, C-Base Type

13626

For straight system runs of 600V or less. For lateral mount, consult factory. The "Self-Centering" versions are used with Pick-up Guides - See Pg. 18.

Description	Part No.	Wt lb (kg)
Standard Mount	**13613**	3.1 (1.41)
Standard tandem Mount	**13626**	5.8 (6.23)
Self-Centering Standard Mount	**13625**	3.2 (1.45)
Self-Centering Tandem Standard Mount	**13628**	6.0 (0.72)

Replacement Shoe

100 amp replacement shoe	**11157**	0.9 (0.41)

100A J-Head, H-Base Type

13630

For straight system runs of 600V or less, and curves to a minimum of 48" radius. For lateral mount, consult factory. The "Self-Centering" versions are used with Pick-up Guides - See Pg. 18.

Description	Part No.	Wt lb (kg)
Standard Mount	**13629**	1.4 (0.65)
Self-Centering Standard Mount	**13630**	1.7 (0.77)

Replacement Shoe

100 amp replacement shoe	**11157**	0.9 (0.41)

8-Bar Curves & Slip Rings

Curved 8-Bar

Factory curved conductors. Refer to page 27 to specify your curve requirements. Consult Factory for your curved 8-Bar Requirements. Maximum length: 10 feet (3.05 meters).

Cover Type	Conductor Bar	Current Cap.	Part No.	Min. Radius in. (mm)
Rigid PVC	Galvanized Steel	110A	**11003**	18.0 (457)
Rigid PVC	Stainless Clad Copper Laminate	250A	**11007**	18.0 (457)
Rigid PVC	Copper Steel Laminate	250A	**11011**	18.0 (457)
Rigid PVC	Rolled Copper	350A	**11015**	18.0 (457)
Rigid PVC	Solid Copper	500A	**11018**	18.0 (457)
Lexan (Medium Heat)	Galvanized Steel	110A	**11022**	57.0 (1447)
Lexan (Medium Heat)	Stainless Clad Copper Laminate	250A	**11026**	57.0 (1447)
Lexan (Medium Heat)	Copper Steel Laminate	250A	**11030**	57.0 (1447)
Lexan (Medium Heat)	Rolled Copper	350A	**11034**	57.0 (1447)
Lexan (Medium Heat)	Solid Copper	500A	**11037**	57.0 (1447)
Polyester (High Heat)	Galvanized Steel	110A	**11041**	57.0 (1447)
Polyester (High Heat)	Stainless Clad Copper Laminate	250A	**11045**	57.0 (1447)
Polyester (High Heat)	Copper Steel Laminate	250A	**11049**	57.0 (1447)
Polyester (High Heat)	Rolled Copper	350A	**11053**	57.0 (1447)
Polyester (High Heat)	Solid Copper	500A	**11056**	57.0 (1447)

Slip Rings

Curved segments for factory manufactured ring. Consult Factory for your curved 8-Bar Requirements.

Conductor Bar (Current Rating)	Ring Radius Range in. (mm)	Cover Material	Pieces	Part No.
Galvanized Steel (110A)	18.0 to 35.0 (457 to 889)	Rigid PVC	2-180^0	**23626**
Stainless Clad Copper Laminate (250A)	18.0 to 35.0 (457 to 889)	Rigid PVC	2-180^0	**23627**
Copper Steel Laminate (250A)	18.0 to 35.0 (457 to 889)	Rigid PVC	2-180^0	**23628**
Rolled Copper (350A)	18.0 to 35.0 (457 to 889)	Rigid PVC	2-180^0	**23629**
Galvanized Steel (110A)	35.1 to 54.0 (892 to 1371)	Rigid PVC	3-120^0	**23630**
Stainless Clad Copper Laminate (250A)	35.1 to 54.0 (892 to 1371)	Rigid PVC	3-120^0	**23631**
Copper Steel Laminate (250A)	35.1 to 54.0 (892 to 1371)	Rigid PVC	3-120^0	**23632**
Rolled Copper (350A)	35.1 to 54.0 (892 to 1371)	Rigid PVC	3-120^0	**23633**
Solid Copper (500A)	35.1 to 54.0 (892 to 1371)	Rigid PVC	3-120^0	**24292**
Galvanized Steel (110A)	54.1 to 72.0 (1374 to 1828)	Rigid PVC	4-90^0	**23634**
Stainless Clad Copper Laminate (250A)	54.1 to 72.0 (1374 to 1828)	Rigid PVC	4-90^0	**23635**
Copper Steel Laminate (250A)	54.1 to 72.0 (1374 to 1828)	Rigid PVC	4-90^0	**23636**
Rolled Copper (350A)	54.1 to 72.0 (1374 to 1828)	Rigid PVC	4-90^0	**23637**
Solid Copper (500A)	54.1 to 72.0 (1374 to 1828)	Rigid PVC	4-90^0	**24293**
Galvanized Steel (110A)	57.0 to 72.0 (1447 to 1828)	Lexan (Med Heat)	4-90^0	**23638**
Stainless Clad Copper Laminate (250A)	57.0 to 72.0 (1447 to 1828)	Lexan (Med Heat)	4-90^0	**23639**
Copper Steel Laminate (250A)	57.0 to 72.0 (1447 to 1828)	Lexan (Med Heat)	4-90^0	**23640**
Rolled Copper (350A)	57.0 to 72.0 (1447 to 1828)	Lexan (Med Heat)	4-90^0	**23641**
Solid Copper (500A)	57.0 to 72.0 (1447 to 1828)	Lexan (Med Heat)	4-90^0	**24294**

8-Bar Curves & Slip Rings Specification Data

This worksheet is designed to help you choose the correct curved section for your application. Consult factory when calculating your requirements.

Customer:

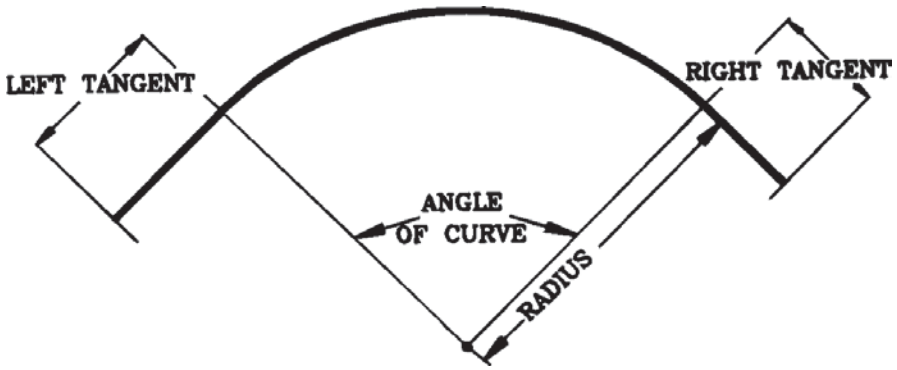
Project No.: **Item No.:** **Date:**

1. Bar type, Rating (Amps/Volts):

2. Environment / Ambient Temp:

3. Fill in

Angle of curve:	
Left tangent 6" (152mm) standard:	
Right tangent 6" (152mm) standard:	
Radius to contact surface: (Consult Pg. 26 for minimum radii.)	



4. Select style of bar:

○ Outside Contact

○ Inside Contact

○ Bottom Contact

5. For systems with parallel curves, sketch layout below and indicate the radius, angle and tangent for each.

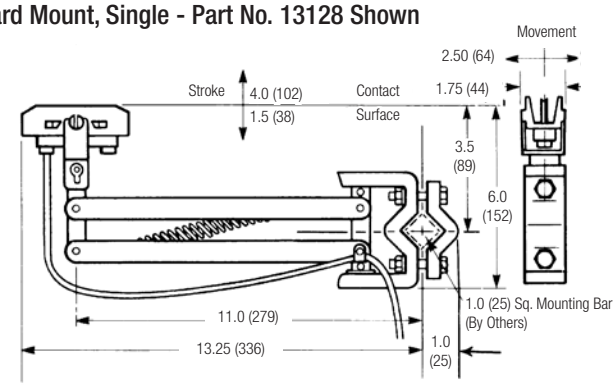
8-Bar Collector Dimensions

C Base Collectors

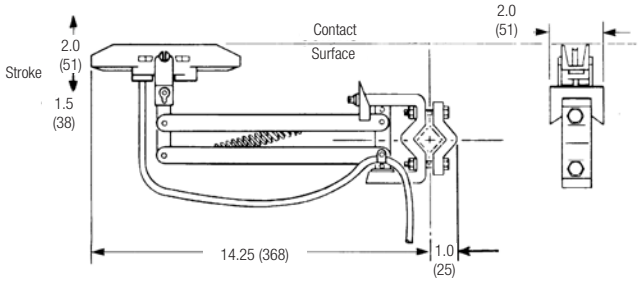
Dimensions common to all C-Base Collectors are not repeated.

Type	30 Amp	60 Amp Tandem	100 Amp	200 Amp Tandem
Standard Mount	13128	13082	13613	13626
Self-Centering	13130	13084	13625	13628

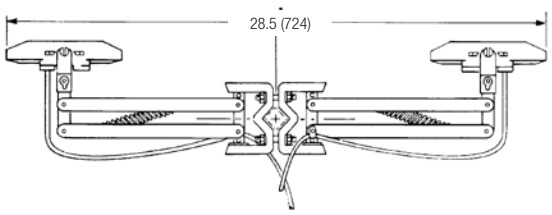
Standard Mount, Single - Part No. 13128 Shown



Self-Centering - Part No. 13625 Shown



Standard Mount, Tandem - Part No. 13626

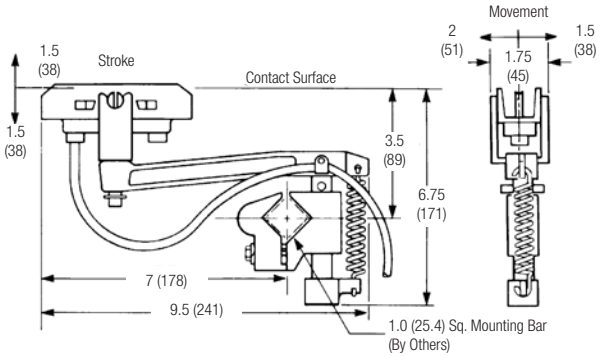


H Base Collector

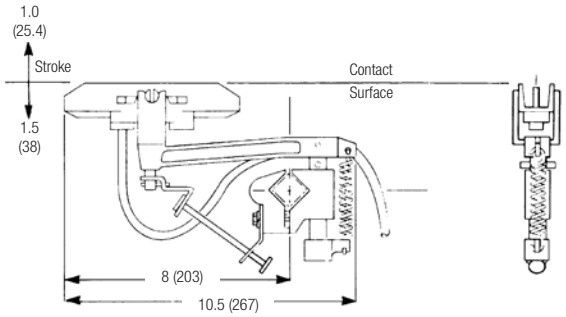
Dimensions common to all H-Base Collectors are not repeated.

Type	30 Amp	100 Amp
Standard Mount	13131	13629
Self-Centering	13132	13630

Standard Mount, Single - Part No. 13131Shown

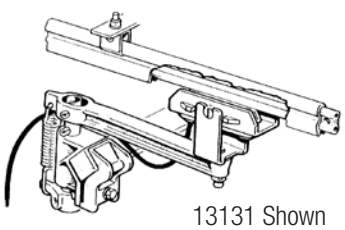


Standard Mount, Single - Part No. 13630 Shown



Collector Mounting

Standard Mount
(Vertical Entry)



13131 Shown

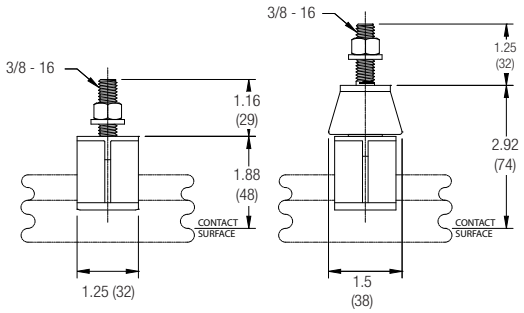
Shoe Pressure

30 amp: 3-5 lb
100 amp 6-9 lb

8-Bar Hanger and Anchor Dimensions

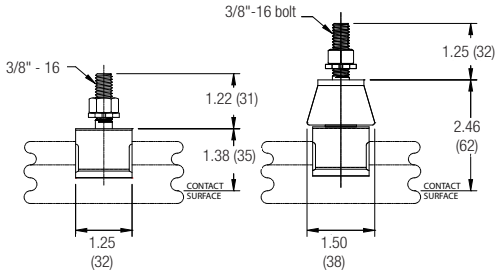
Note: Plastic or steel snap-in hangers are not recommended for lateral mounting or curves.

Plastic Snap-in Hanger Clamps, 250⁰ F



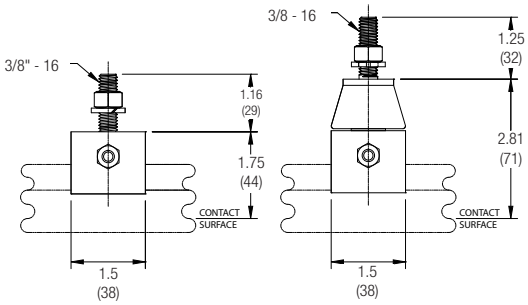
22800, 23370 24405, 28122 w/insulator

Spring Steel Snap-in Hanger Clamps, 400⁰ F



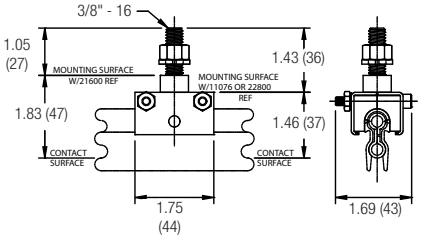
21600 22000 w/insulator

Cross-Bolt Hanger Clamps

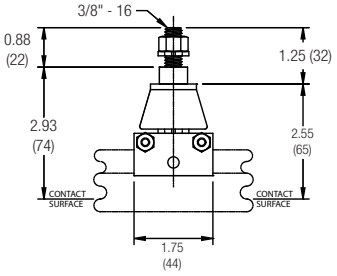


11076, 11078 11082, 11084

Anchor Clamp, 400⁰ F

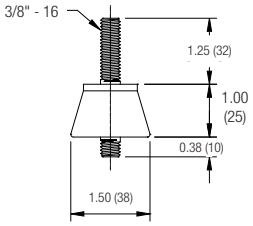


21833, 28123



21982, 28124

Insulator, 400⁰ F



11087 (plated inserts); 16424 (stainless inserts)

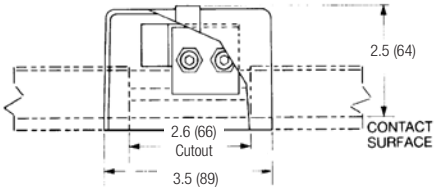
Transfer Cap, 300⁰ F

	Center	Left	Right
40, 110, 250, 350 amp	**13161**	**14118**	**14119**
90 amp only	**22070**	**22395**	**22396**

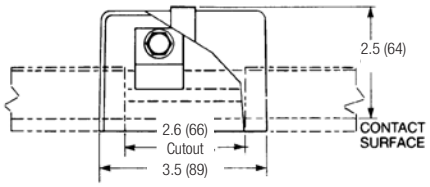
8-Bar Component Dimensions

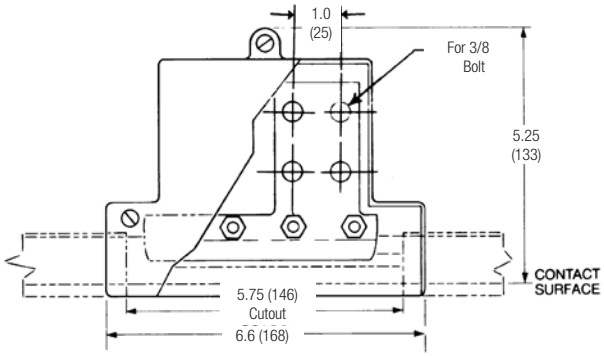
Powerfeeds

11092, 11093, 27104



11091, 11122

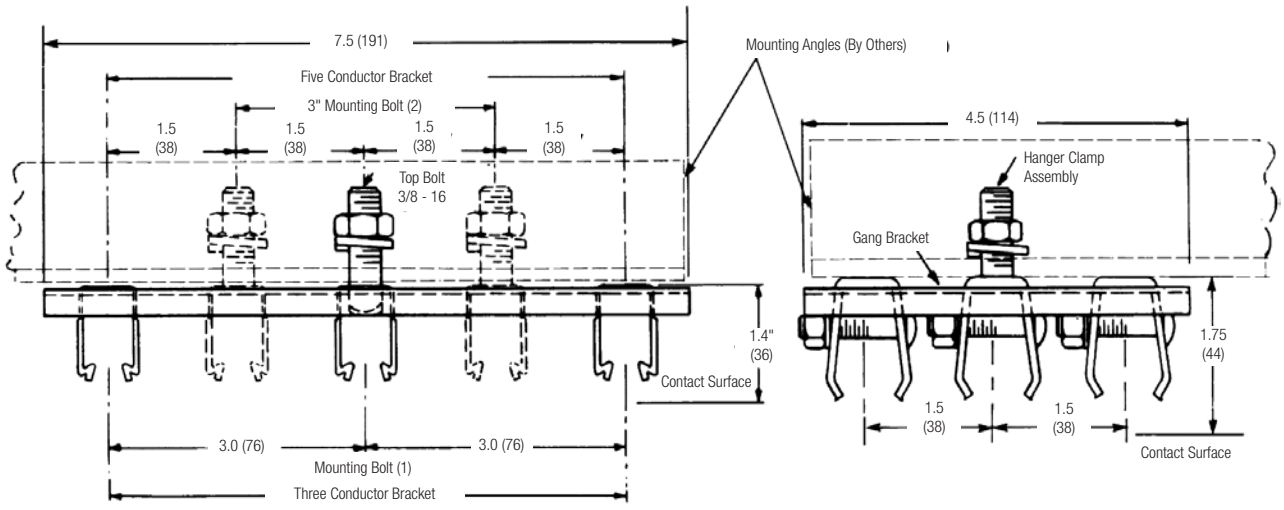




11094, 27106

Part No.	Current Cap. (Amps)	Temp. Rating °F (°C)	Description
11091	90 / 110	160 (71.1)	Steel clamp type. Complete assembly of clamp and PVC case for steel systems only. Single bolt hole 1/4" for 3/0
11122	90 / 110	400 (204.4)	Steel clamp type. Complete assembly of clamp and high-heat case for steel systems only.
11092 / 27104	250	160 (71.1)	Copper clamp type. Complete assembly of clamp and PVC case for systems with feed wires from #8 AWG to 1/0.
11093	250	400 (204.4)	Copper clamp type. Complete assembly of clamp and high heat case for systems with feed wires from #8 AWG to 1/0.
11094 / 27106	500	400 (204.4)	Copper clamp type with stub. Complete assembly of clamp with NEMA standard 4-hole stub and case. Feed wires to 500 MCM.

Gang Hanger Clamp Bracket

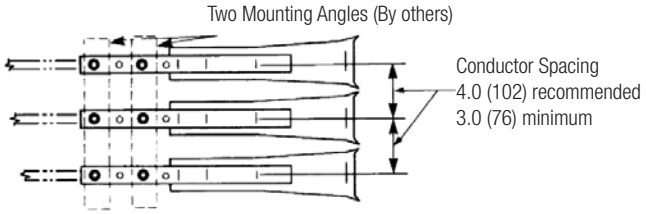


Snap-in Hanger 22646

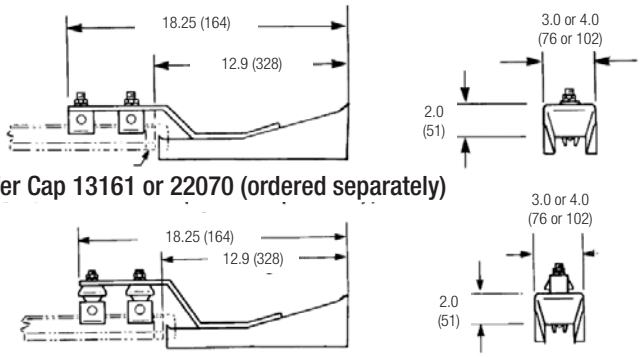
Cross-Bolt Hanger 22649

8-Bar Component Dimensions

Pick-up Guides



13142 For 'J' head collectors, indoors, 3.0 (76) spacing
11089 For 'J' head collectors, indoors, 4.0 (102) spacing



Crane Bridges and Runways