

# Electrical Accessories

A complete system of top quality, time saving products, designed for surface metal raceways, lighting and cable supports. Innovative designs offer many installation advantages. B-Line's surface raceways are U.L. listed and meet the requirements of the National Electrical Code, Article 384.

## Surface Raceways

Our channel provides structural support in addition to a raceway system.

For U.L. wire fill see chart on page 230-231.

## Cable Supports

A full range of clamps and saddles are offered in porcelain, thermoplastic elastomer and maple. Our maple clamps, Insulclamp™ cable clamps and porcelain saddles are furnished complete with steel clamps (electro-plated) and Everdur hardware where required.

## Materials & Finishes\*

Steel products are made from low carbon steel strips or plates. Porcelain saddles and clamps are made by dry process and white glazed (porcelain dielectric strength is 50 volts per mil). Maple clamps are made from kiln-dried maple wood, paraffin impregnated.

Finish Code	Finish	Specification
PLN	Plain	ASTM A1011 33,000 PSI min. yield
ZN	Electro-Plated Zinc	ASTM B633 SC3 Type III
GRN	DURA-GREEN™	
GALV	Pre-Galvanized	ASTM B653
YZN	Yellow Zinc Chromate	ASTM B633 SC3 Type II

\*Unless otherwise noted.

## Design Load

Design load data published includes a Safety Factor of 3.0 (Safety Factor = Ratio of ultimate load to the design load).

U.L. listed raceway channels:

B11, B11KO6	B32, B32KO6
B12, B12KO6	B42, B42KO6
B22, B22KO6	B52, B52KO6
B24, B24KO6	B54, B54KO6
B26, B26KO6	B56, B56KO6

U.L. File No. E29637

In all cases, the snap-in closure strip is required to complete raceway enclosure.

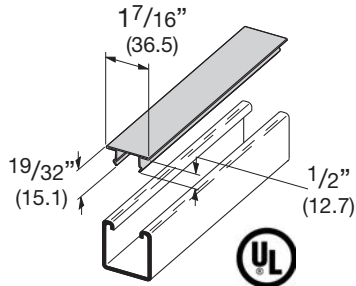
## Metric

Metric dimensions are shown in parentheses. Unless noted, all metric dimensions are in millimeters.



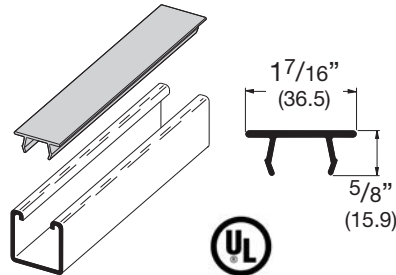
## B217-20 SNAP CLOSURE STRIP FOR ALL 1 5/8" (41.3) WIDE CHANNELS

- Refer to Raceway Fill Chart Pg. 214-215
- Material: 20 Gauge (.9)
- Standard finishes: GRN, GALV, YZN
- Standard length: 120" (3.05m)
- Wt./CFT 36 Lbs. (16.3 kg)



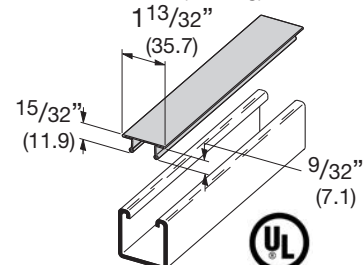
## B217P PLASTIC SNAP CLOSURE STRIP FOR ALL 1 5/8" (41.3) WIDE CHANNELS

- Refer to Raceway Fill Chart Pg. 214-215
- Standard finishes: Green (GRN) or Gray (GRY) Plastic
- Standard length: 120" (3.05m)
- Wt./CFT 9.2 Lbs. (4.2 kg)



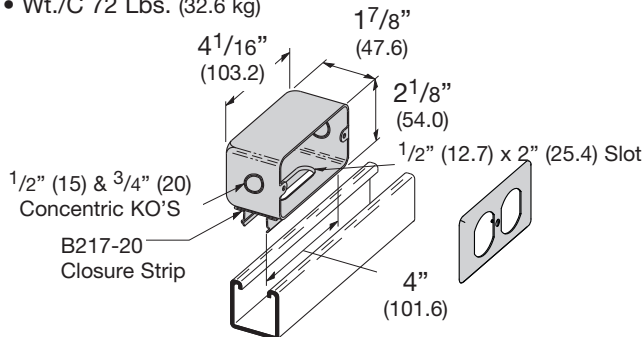
## B217-24 SNAP CLOSURE STRIP FOR ALL 1 5/8" (41.3) WIDE CHANNELS

- Refer to Raceway Fill Chart Pg. 214-215
- For use with 7 or fewer conductors no larger than #12 AWG
- Material: 24 Gauge (.6)
- Standard finishes: GRN, GALV, YZN
- Standard length: 120" (3.05m)
- Wt./CFT 28 Lbs. (12.7 kg)



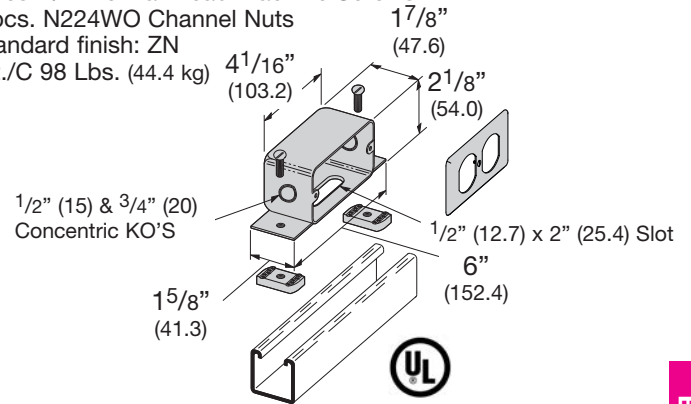
## B516 SNAP-IN OUTLET BOX

- Provided with #10-32 tapped hole for grounding strap
- Duplex cover plate included
- Receptacle not furnished
- Requires ground wire installation for use with UL listed channel raceway system
- Standard finish: GALV
- Wt./C 72 Lbs. (32.6 kg)



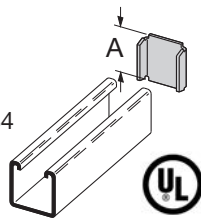
## B516S OUTLET BOX

- Duplex cover plate included
- Receptacle not furnished
- Includes:  
2 pcs. 1/4"-20 Flat Head Machine Screws  
2 pcs. N224WO Channel Nuts
- Standard finish: ZN
- Wt./C 98 Lbs. (44.4 kg)



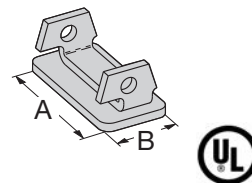
## B203 THRU B206 B220 THRU B223 X TYPE END CAPS

- Material: 12 Gauge (2.6)
- Standard finishes: ZN, GRN, HDG, SS4



## B283 THRU B286 END CAPS

- Material: 12 Gauge (2.6)
- Standard finishes: ZN, GRN



Part No.	Use With	A	Wt./C	
			Lbs.	kg
B203	B42	1.015" (25.8)	6	(2.7)
B204	B54	.827" (21.0)	5	(2.2)
B205	B22	1.640" (41.6)	10	(4.5)
B206	B32	1.390" (35.3)	8	(3.6)
B220	B52	.827" (21.0)	4	(1.8)
B221	B12	2.452" (62.3)	15	(6.8)
B222	B11	3.265" (82.9)	20	(9.1)
B223	B24	1.640" (41.6)	10	(4.5)

Part No.	Use With	A		B		Wt./C	
		Lbs.	kg	Lbs.	kg	Lbs.	kg
B283	B52	1 19/32" (40.5)		25/32" (19.8)		6	(2.7)
B284	B54 & B56	1 19/32" (40.5)		25/32" (19.8)		6	(2.7)
B285	B22	1 19/32" (40.5)		1 19/32" (40.5)		13	(5.9)
B286	B24 & B26	1 19/32" (40.5)		1 19/32" (40.5)		14	(6.3)

Reference page 162 for general fitting and standard finish specifications. U.L. Wire Fill Chart on pages 230 - 231.

## General Notes for Strut-Type Channel Raceway

UL Category RIUU - B-Line, Inc., Highland, IL 62249 December 11, 1998 (C)  
 FLUORESCENT AND INCANDESCENT LIGHTING



Suitable for not more than the number of wires of the sizes and types indicated in the following tables. Intended to enclose circuits operating at potentials not exceeding 600 volts between conductors. In all cases, the B217-20 or B217P snap-in cover is required to complete raceway closure. When using B217-24 snap-in cover, the number of wires is limited to 7 or fewer conductors no larger than #12 AWG.

B-Line's strut-type channel raceways and fittings are manufactured and tested to comply with the UL Standard for Safety for Strut-Type Channel Raceways and Fittings (UL 5B) in accordance with Article 384 of the 2002 National Electrical Code, NFPA 70.

1. Support spans for strut-type channel raceway shall not exceed 10 foot intervals.
2. No conductor larger than that for which the raceway is listed shall be installed in strut-type channel raceways. No wires under 14AWG or over 6AWG are allowed in any of B-Line's strut-type channel raceway. See tables 1, 2 and 3 below for a listing of the approved conductors for B-Line's strut-type channel raceways.
3. The number of conductors permitted in strut-type channel raceway shall not exceed the percentage fill using Table 384-22 and the applicable outside diameter of specific types and sizes of wire given in the tables in chapter 9 of the National Electrical Code. Table 384-22 lists two different percent fill areas depending on the use of internal or external joiners. Use 40% area fill with external joiners and 25% area fill for internal joiners.
4. Items in the electrical section of the B-Line Strut Systems Catalog identified by the UL symbol provide for electrical continuity. Other items require the use of a separate grounding wire.
5. If strut-type channel raceway is connected to another wiring system, the raceway must be field-tapped adjacent to the wire entry point to accept a #10-32 or larger grounding screw. A plated or stainless steel screw may be used. A sheet metal screw is not acceptable. Drill and tap the grounding wire hole before installing wires in raceway or move installed wires out of the way to avoid damage. After drilling and tapping, remove metal chips and burrs before installing screw.

**TABLE 1: MAXIMUM NUMBER OF WIRES (Adjusted per NEC Table 384.22 for 40% fill)**

Use this table to determine the type and number of conductors for use with B-Line's strut-type channel raceway using external joiners. This table applies for all installations except for the support and supply of electric discharge type lighting fixtures. See table 2 and 3 for further information.

Insulation Type	Wire Size AWG.	B11 B11K06	B12 B12K06	B22 B22K06	B24 B24K06	B26 B26K06	B32 B32K06	B56 B56K06
FEP, FEPB	14	172	127	81	81	81	67	36
	12	126	92	59	59	59	49	26
	10	90	66	42	42	42	35	19
	8	51	38	24	24	24	20	11
	6	24	17	11	12	12	9	5
RH, RHH, RHW	14	52	38	24	26	27	20	12
	12	45	33	21	22	23	17	10
	10	37	27	17	18	19	14	8
	8	20	14	9	10	10	7	4
	6	14	10	6	7	7	5	3
T, TW	14	124	91	58	58	58	48	26
	12	95	70	45	45	45	37	20
	10	69	51	33	33	33	27	14
	8	36	26	17	18	19	14	8
	6	21	15	9	10	11	8	5
THHN, THWN	14	178	131	84	84	84	69	37
	12	130	95	61	61	61	50	27
	10	82	60	38	38	38	32	17
	8	46	34	21	22	22	17	10
	6	33	24	15	16	16	12	7
THW	14	82	61	39	39	39	32	17
	12	66	49	31	31	31	26	14
	10	52	38	24	24	24	20	11
	8	29	21	13	14	15	11	6
	6	21	15	10	10	11	8	5
XHHW	14	124	91	58	58	58	48	26
	12	95	70	45	45	45	37	20
	10	71	52	33	33	33	28	15
	8	37	27	17	19	19	14	8
	6	27	20	13	14	14	10	6