VANDAPOWER

200 Series Lug & Ring Terminal Caps

The 200 Series terminal insulators are designed to protect ring and lug terminals. They are available in sizes from 12 mm up to 34 mm. They are manufactured from PVC, wich has a 105°C temperature rating.

TOD= Terminal Outside Diameter

212 Series
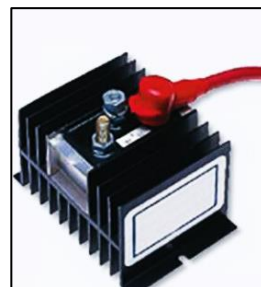12 mm TOD
18 – 2 ga cable

214 Series
14 mm TOD
18 – 2 ga cable

216 Series
16 mm TOD
18 – 2 ga cable

218 Series
18 mm TOD
18 – 2 ga cable

220 Series
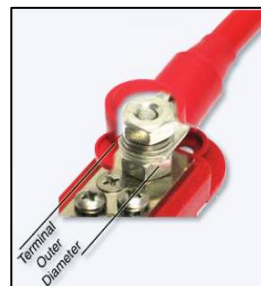20 mm TOD
18 – 2/0 ga cable

222 Series
22 mm TOD
18 – 2/0 ga cable

224 Series
24 mm TOD
18 – 2/0 ga cable

226 Series
26 mm TOD
18 – 2/0 ga cable

The 200 Series terminal insulators work with stud and eyelet terminals.

This series can have an extended length for longer terminals, and can be manufactured in 14 colors.

The 200 Series is commonly used on inverters, starters, windlasses, chargers, and other high energy connections.

228 Series
28 mm TOD
18 – 2/0 ga cable

230 Series
30 mm TOD
18 – 2/0 ga cable

232 Series
32 mm TOD
18 – 2/0 ga cable

234 Series
34 mm TOD
18 – 2/0 ga cable

VANDAPOWER

# 200 Series Lug & Ring Terminal Caps

Part Dimensions / Ordering Information

Dimensions

| Base Part Number	A Terminal O.D. (in/mm)	B Post Height (in/mm)	C Ins. Grip Diameter (in/mm)	D Cable Entry Options (See Chart)	E Terminal Length (in/mm)	Nominal Material Thickness (in/mm)
TI 212N*	.48/12	.70/17.8	.5/12.7	1,2	1.0/25.4	.06/1.5
TI 212E*	.48/12	.70/17.8	.5/12.7	1,2	1.25/31.8	.06/1.5
TI 214N*	.55/14	.75/19.1	.5/12.7	1,2	1.0/25.4	.06/1.5
TI 214E*	.55/14	.75/19.1	.5/12.7	1,2	1.25/31.8	.06/1.5
TI 216N*	.65/16	.80/20.3	.5/12.7	1,2	1.0/25.4	.06/1.5
TI 216E*	.65/16	.80/20.3	.5/12.7	1,2	1.25/31.8	.06/1.5
TI 218N*	.73/18	.87/22.1	.5/12.7	1,2	1.0/25.4	.06/1.5
TI 218E*	.73/18	.87/22.1	.5/12.7	1,2	1.25/31.8	.06/1.5
TI 220N*	.81/20	.95/24.1	.7/17.8	1,2,3	1.32/33.5	.07/1.8
TI 220E*	.81/20	.95/24.1	.7/17.8	1,2,3	1.75/44.5	.07/1.8
TI 222N*	.87/22	1.05/26.7	.7/17.8	1,2,3	1.32/33.5	.07/1.8
TI 222E*	.87/22	1.05/26.7	.7/17.8	1,2,3	1.75/44.5	.07/1.8
TI 224N*	.95/24	1.13/28.7	.7/17.8	1,2,3	1.62/41.2	.08/2.0
TI 224E*	.95/24	1.13/28.7	.7/17.8	1,2,3	2.06/52.3	.08/2.0
TI 226N*	1.03/26	1.25/31.8	.7/17.8	1,2,3	1.62/41.2	.08/2.0
TI 226E*	1.03/26	1.25/31.8	.7/17.8	1,2,3	2.06/52.3	.08/2.0
TI 228N*	1.11/28	1.32/33.5	.75/19.1	1,2,3	1.75/44.5	.09/2.3
TI 228E*	1.11/28	1.32/33.5	.75/19.1	1,2,3	2.25/57.2	.09/2.3
TI 230N*	1.20/30	1.40/35.6	.75/19.1	1,2,3	1.75/44.5	.09/2.3
TI 230E*	1.20/30	1.40/35.6	.75/19.1	1,2,3	2.25/57.2	.09/2.3
TI 232N*	1.28/32	1.50/38.1	.9/22.9	1,2,3,4	1.75/44.5	.10/2.5
TI 232E*	1.28/32	1.50/38.1	.9/22.9	1,2,3,4	2.38/60.5	.10/2.5
TI 234N*	1.37/34	1.60/40.6	.9/22.9	1,2,3,4	1.75/44.5	.10/2.5
TI 234E*	1.37/34	1.60/40.6	.9/22.9	1,2,3,4	2.38/60.5	.10/2.5
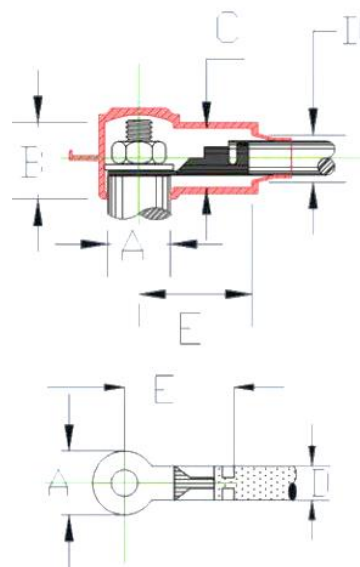
For use with stud-type terminal posts
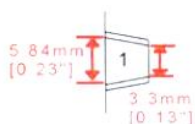
Cable Gauges 18-10
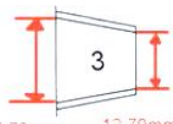0.8mm²
(3.24mm/0.13") to
5mm²
(5.42mm/0.215")
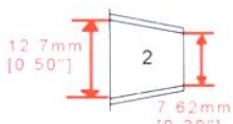
Cable Gauges 8-2
8mm²
(6.98mm/0.28") to
32mm²
(11.93mm/0.51")

Cable Gauges 2-2/0
32mm²
(11.93mm/0.51") to
62mm²
(16.0mm/0.66")
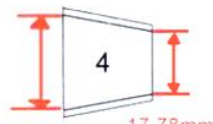
Cable Gauges 3/0-4/0
81mm²
(18.3mm/0.75") to
103mm²
(19.8mm/0.81")

Sample 8 Digit Part Number

TI232 N 4 V 02

Mold Number:
212-234

Length:
N – Normal
E - Extended

Cable Entry
(see Above)

Material:
V - Vinyl

Color:
02 – Red (*)
14 – Black (*)
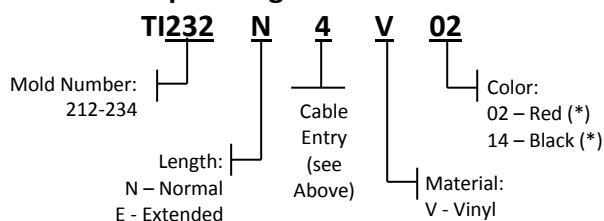
Finding the correct insulation

1. Determine your terminal's outside diameter (A above).
2. Determine your terminal's post height (B above).
3. Determine your terminal's cable entry (D above)

Match your terminal's measurements against the table above to find the correct insulator for your application.

V. 1601

VANDAPOWER

Lug & Ring Terminal Insulators

A more comprehensive line of insulators, offering a wider variety of lug and ring protection. Our lug and ring insulators can be used with starters, generators, alternators, solenoids, and other devices.

258 Series

- Protect large terminal connections from shorts
- Terminal Outside Dia: 2.3"/58.7mm
- Post height: 2.0"/50.8mm
- Inside grip Dia: .65"/16.6mm
- Can accept multiple cables, up to 1/0 ga each

Part#	Cable Entry Size
TI258N9*	Oval, up to 4/0

216T Series

- Snap-on insulator, can be removed without cable
- Terminal outside dia: .64"/16.3mm
- Post height: .74"/18.8mm

Part#	Cable Entry Size
TI216T8*	.27"/6.9mm

400 Series

- Terminal outside dia: .6"/15.2mm
- Post height: .88"/22.4mm
- Inside grip dia: .44"/11.2mm
- Terminal length: 1.19"/30.3mm

Part#	Cable Entry Size
TI400N7*	.31"/7.9mm
TI400N9*	.44"/11.2mm
TI400E4*	.18"/4.6mm

405 Series

- Terminal outside Dia: 1.0"/25.4mm
- Post height: .98"/24.8mm
- Inside grip dia: .50"/12.7mm

NEW:406 Series

Part#	Cable Entry Size
TI405N1*	.13"/3.3mm
TI405N2*	.30"/7.6mm
TI405N9*	.50"/12.7mm
TI406N3*	.16"/4.1mm
TI406N9*	.75"/19mm

470 Series

- Terminal outside dia: .85"/21.6mm
- Post height: 1.06"/26.9mm
- Inside grip dia: .63"/15.9mm
- Terminal length: 1.81"/46.0mm

Part#	Cable Entry Size
TI470N9*	.63"/15.9mm

485 Series

- Terminal outside dia: .52"/12.9mm
- Post height: .45"/11.4mm
- Inside grip dia: .25"/6.4mm
- Cable entry: .25"/6.4mm

Part#	Cable Entry Size
TI485N9*	.25"/6.4mm

VANDAPOWER

V. 1601

Lug & Ring Terminal Insulators

487 Series

- Terminal Outside Dia: 1.26"/32mm
- Post height: .98"/24.9mm
- Inside grip Dia: .1.0"/25.4mm
- Available in 5 cable entries

NEW:488 Series

Part#	Cable Entry Size
TI487N6*	.5"/12.7mm
TI487N7*	.6"/15.2mm
TI487N8*	.65"/16.5mm
TI487N9*	.75"/19mm
TI488N9*	.87"/22.1mm

490 Series

- Used for angled connections
- Terminal outside dia: .75"/19.1mm
- Post height: 1.07"/27.2mm
- Inside grip dia: .50"/12.7mm

Part#	Cable Entry Size
TI490N9*	.5"/12.7mm

510 Series

- Terminal outside dia: .5"/12.7mm
- Post height: .8"/20.3mm
- Inside grip dia: .6.4-11.6mm
- Additional lead times may apply

Part#	Cable Entry Size
TI510N9*	.25"/6.4mm

600 Series

- Terminal outside Dia: 1.57"/40mm
- Post height: .1.62"/41.1mm
- Inside grip dia: .65"/16.6mm
- Available in 7 cable entries

Part#	Cable Entry Size	
TI600N1*	(1)	.31"/7.9mm
TI600N2*	(2)	.31"/7.9mm
TI600N3*	(1)	.5"/12.7mm
TI600N4*	(2)	.5"/12.7mm
TI600N5*	(1)	.62"/15.8mm
TI600N6*	(2)	.62"/15.8mm
TI600N7*	Oval up to 4/0	

800 Series

- Terminal outside dia: .85"/21.6mm
- Post height: 1.06"/26.9mm
- Inside grip dia: .63"/15.9mm
- Terminal length: 1.81"/46.0mm

Part#	Cable Entry Size
TI800N4*	.17"/4.3mm
TI800N5*	.21"/5.3mm
TI800N8*	.31"/7.9mm
TI800N9*	.50"12.7mm

801 Series
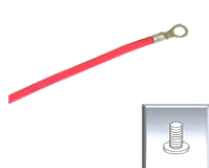
- Terminal outside dia: .75"/19.1mm
- Post height: 1.03"/26.2mm
- Inside grip dia: .37"/9.4mm
- Cable entry: .31"/7.9mm

Part#	Cable Entry Size
TI801N8*	.31"/7.9mm

* V02= Red
  V14= Black

VANDAPOWER

V. 1601

Battery Terminal Insulators

The battery insulators are designed for use in marine, commercial, industrial and automotive fields. Our battery terminal insulators are available in various materials and colors.

409 Series

- Protect stamped or wrapped battery terminals
- Available in 2 cable entries
- Post height: .83"/21.0mm
- Cable entry: 8 ga -1/0 ga

Part#	Cable Entry Size
TI409N2*	.29"/7.2mm
TI409N3*	.50"/12.7mm

415 Series

- Protect tapered style battery posts
- Post height: .74"/18.8mm
- Cable entry:1/0 ga -2/0 ga
- Available in 4 entry sizes

Part#	Cable Entry Size
TI415N6*	.37"/9.4mm
TI415N7*	.44"/11.2mm
TI415N8*	.50"/12.7mm
TI415N9*	..625"/15.9mm

416 Series

- Protect tapered style battery posts
- Post height: .76"/19.3mm
- Inside grip: .63"/16.0mm

Part#	Cable Entry Size
TI416N9*	.63"/16.0mm

417 Series

- Snap-on insulator, can be removed without cable
- Post height: .91"/23.1mm
- Inside grip dia: .50"/12.7mm
- Cable entry: 1-1/0 ga

Part#	Cable Entry Size
TI417N9*	.50"/12.7mm

430 Series

- Protect tapered style battery posts
- Post height: .83"/21.1mm
- Inside grip dia: .56"/14.2mm
- Cable entry: 2/0-3/0 ga

Part#	Cable Entry Size
TI430N7*	.56"/14.2mm
TI430N8*	.68"/17.3mm

455 Series

- Insulator for dual post battery
- Insulator snaps onto cable, and can be fastened with zip-tie
- Can accept multiple cables, of different sizes

Part#	Cable Entry Size
TI455N4*	.4"/10mm
TI455N6*	.5"/12.7mm
TI455N8*	.75"/19.1mm

* V02= Red
V14= Black

Battery Terminal Insulators

458 Series

- Insulator for dual post battery
- Attached cover can insulate post when not in use
- Often used with 226 Series Cap

Part#	Cable Entry Size
TI458N0*	n/a

500 Series

- Protect angle battery terminals
- Left, right, and dual cable entry
- Available in 2 sizes

Part#	Cable Entry Size
TI500L7*	.5"/12.7mm
TI500L9*	.69"/17.5mm
TI500R7*	.5"/12.7mm
TI500R9*	.69"/17.5mm
TI500D7*	.5"/12.7mm
TI500D9*	.69"/17.5mm

553 Series

- Protect side post battery connection
- Available in two sizes

Part#	Cable Entry Size
TI553X6*	.59"/15.0mm
TI553X9*	.90"/22.9mm

460 Series

- Protect marine battery, Exide 32
- Tabbed finger grip, for easy removal
- Available for positive and negative
- Allows for secondary battery connection

Part#	Cable Entry Size
TI460N9*	n/a

462 Series

- Protect dual-post battery terminals
- Often used in marine industry
- Attached cap covers post when not in use

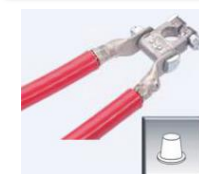| Part#	Cable Entry Size
TI462N0*	n/a

466 Series

- Protect heavy duty battery terminal
- Inside grip dia: .42"/10.7mm
- Cable entry:

Part#	Cable Entry Size
TI466L1,R1*	.13"/3.3mm
TI466L2,R2*	.30"/7.6mm
TI466L3,R3*	.50"/12.7mm
TI466N9*	Oval up to 4/0 ga

Left Entry   Right Entry   Oval Entry

468 Series

- Protect heavy duty battery terminal
- Accepts right, left, and dual cable
- Snaps onto terminal & cable
- Accepts up to 4/0 ga cables

Part#	Cable Entry Size
TI468L9*	.82"/20.8mm
TI468R9*	.82"/20.8mm
TI468D9*	.82"/20.8mm

* V02= Red
V14= Black

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Battery Terminal Insulators

740 Series

- Protect marine wing-nut terminals
- Top insulator swivels to accommodate different cable direction
- Several cable entries
- Top insulator offers single, dual,

Red	Black	Cable Entry Size
TI3014	TI4013	(1).31"/7.9mm
TI3024	TI4023	(2).31"/7.9mm
TI3034	TI4033	(1).5"/12.7mm
TI3044	TI4043	(2).5"/12.7mm
TI3054	TI4053	(1).62"/15.8mm
TI3064	TI4063	(2).62"/15.8mm
TI3074	TI4073	Oval up to 4/0 ga

843 Series

- Protect tapered battery post
- Left, right and duals cable entry
- Post height: .79"/20.1mm

Part#	Cable Entry Size
TI843L8*	.44"/11.2mm
TI843L9*	.50"/12.7mm
TI843R8*	.44"/11.2mm
TI843R9*	.50"/12.7mm
TI843D8*	.44"/11.2mm
TI843D9*	.50"/12.7mm

900 Series

- Protect tapered battery post
- Left, right and dual cable entry
- Cable entry ring can utilize zip-tie, securing insulator
- Cable entry: up to 3/0 ga (4/0 ga when cut and ziptied)

Part#	Cable Entry Size
TI900L9*	.63"/16.0mm
TI900R9*	.63"/16.0mm
TI900D9*	.63"/16.0mm

975 Series

- Heavy duty cable series
- Cable entry accepts double cable
- Wide cable entry for large cable
- Cable entry: up to 4/0 ga

Part#	Cable Entry Size
TI975D8	.80"/20.3mm

976 Series

- Heavy duty cable series
- Triple cable entry permits 3 cables
- Wide cable entry for large cables
- Cable entries can be blocked
- Cable entry: up to 4/0 ga

Part#	Cable Entry Size
TI976N8	.80"/20.3mm

* V02= Red
   V14= Black

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L-Post Terminal Insulators

This series of insulators is designed to protect L- Post terminals, or Flag terminals.

433 Series

- Protect L-Post battery terminals
- Available with left & right entry
- Cable entry: .44"/11.2mm
- Post height: 1.04"/26.4mm

Part#	Cable Entry Size
TI433L5*	.44"/11.2mm
TI433R5*	.44"/11.2mm

436 Series

- Protect flat threaded battery posts
- Also protect low-profile L-Post
- Insulator snaps onto cable
- Can be secured to cable with ziptie
- Available without shroud
- Post height: .75"/19.1mm

Part#	Cable Entry Size
TI436N4*	.36"/9.2mm
TI436N5*	.48"/12.2mm
TI436N7*	.64"/16.2mm
TI436S4*	.35"/9.0mm
TI436S5*	.48"/12.2mm

437 Series

- Protect L-post battery terminals
- Insulator snaps onto cable
- Can be secured to cable with a ziptie
- Availble without shroud
- Post height: 1.28"/32.5mm

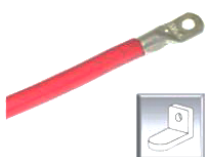| Part#	Cable Entry Size
TI437N4*	.36"/9.3mm
TI437N5*	.46"/11.4mm
TI437N7*	.48"/12.3mm
TI437S5*	.40"/10.0mm

439 Series

- Protect L-Post battery terminals
- Isolator snaps onto cable
- Can be secured to cable with ziptie
- Available without shroud
- Post height: 1.28"/32.5mm

Part#	Cable Entry Size
TI439N5*	.38"/9.6mm

444 Series

- Protect smaller L-Post terminals
- Available with left of richt entry
- Post height: 1.2"/30.5mm

Part#	Cable Entry Size
TI444L6*	.30"/7.6mm
TI444R6*	.30"/7.6mm
TI444L8*	.37"/9.4mm
TI444R8*	.37"/9.4mm
TI444L9*	.44"/11.2mm
TI444R9*	.44"/11.2mm

799 Series

- Protect smaller L-Post battery terminals
- Left, Right and duals cable entry
- Post height: 1.51"/38.3mm
- Cable entry: .25"/6.4mm

Part#	Cable Entry Size
TI799L9*	.25"/6.4mm
TI799R9*	.25"/6.4mm
TI799D9*	.25"/6.4mm

481 Series

- Protect heavy duty L-Post terminals
- Covers exposed terminal base
- Typically used with 433 Series

Part#	Cable Entry Size
TI481N9*	n/a

* V02= Red
  V14= Black

V. 1601

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Adapter Terminal Insulators

Adapter Terminal Insulators are designed to protect combination connections, where cables may be detached from the battery terminal.

419 Series

- Protect multiple cable terminals
- Insulator can slide back, to access cable connections
- Cable Entry: .53"/13.8mm

Part#	Cable Entry Size
TI419N9*	Open up to 1/0 ga

421 Series

- Protect offset battery terminals
- Use with negative terminal, usually left cable entry
- Insulator slides over terminal
- Cable entry: .60"/15.2mm

Part#	Cable Entry Size
TI421N9	.60"/15.2mm

422 Series

- Protect offset battery terminals
- Use with positive terminal, usually right cable entry
- Insulator slides over terminal
- Cable Entry: .60"/15.2mm

Part#	Cable Entry Size
TI422N9	.60"/15.2mm

456 Series

- Protect marine battery terminals
- Works with bolt-on / wing-nut type battery terminals
- Accepts single or multiple cables

Part#	Cable Entry Size
TI456N9*	Oval up to 4/0 ga

457 Series

- Protect marine battery terminals
- Works with bolt-on / wing-nut type battery terminals
- Single cable entry, in 3 sizes

Part#	Cable Entry Size
TI457N1*	.11"/2.8mm
TI457N2*	.32"/8.1mm
TI457N3*	.55"/14.0mm

* V02= Red
  V14= Black

Adapter Terminal Insulators

451 Series

- Protect multiple cable terminals
- Insulator snaps onto cables and can be removed easily
- Cable entry: 53"/13.8mm

Part#	Cable Entry Size
TI451N9*	Open up to 1/0 ga

453 Series

- Protect offset battery terminal, usually left cable entry
- Insulator snaps onto cable
- Cable entry: .50"/12.7mm

Part#	Cable Entry Size
TI453L9 V14	Open up to 1/0 ga
TI453R9 V14	Open up to 1/0 ga
TI453D9 V14	Open up to 1/0 ga

454 Series

- Protect offset battery terminals
- Use with positive terminal, usually right cable entry
- Insulator slides on to cable
- Cable Entry: .50"/12.7mm

Part#	Cable Entry Size
TI454L9 V02	Open up to 1/0 ga
TI454R9 V02	Open up to 1/0 ga
TI454D9 V02	Open up to 1/0 ga

776 Series

- Protect heavy duty battery terminals
- Waterproof inulator/cover kit
- Prevents electrical current flow when submerged in salt water
- Includes 479 Series disc

Part#	Cable Entry Size
TI776N7*	.42"/10.7mm
TI776N8*	.62"/15.8mm
TI776N9*	.82"/20.8mm

70480 Series

- Corrosion prevention kit for 8DA & 4DA batteries
- Cable locations can be changed
- Includes all necessary components: bases, covers, terminals, sleeves, plugs, gel
- For use with 1/0 ga – 4/0 ga cables

Part#	Cable Entry Size
70480*	Min: .5"/12.7mm Max: .87"/22.1mm

* V02= Red
V14= Black

Specialty Terminal Insulators

550 Series

- Covers engine sensors
- Generous height and downward wire exit
- Retainer lip keeps cover in place
- Wall thickness: ~1mm
- Available in 2 cable entries

Part#	Cable Entry Size
TI550N6*	.25"/6.4mm
TI550N9*	.38"/9.5mm

560 Series

- Covers engine sensors
- Generous height and downward wire exit
- Retainer lip keeps cover in place
- Wall thickness: ~2.8mm

Part#	Cable Entry Size
TI560N4*	.25"/6.4mm

621 Series

- Small straight sensor cover
- Molded in ring allows for greater strength
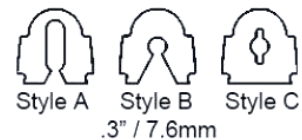- Typically used with oil and water temperature sensors

Part#	Cable Entry Size
TI621N9*	.25"/6.4mm

725 Series

- Accepts terminals up to 24mm
- Tunnel cap allows for various cable entry sizes and shapes
- Insulator can be zip-tied to cable
- Maximum terminal OD: .94"/24mm
- Maximum terminal height: .99"/25.3mm
- Available in halogen-free material

Part#	Cable Entry Size
TI224T9*	Various Inserts

Style A   Style B   Style C
.3" / 7.6mm

729 Series

- Accepts terminals up to 24mm
- Tunnel cap allows for various cable entry sizes and shapes
- Insulator can be zip-tied to cable
- Maximum terminal OD: .1.1"/28mm
- Maximum terminal height: 1.2"/30.7mm
- Available in halogen-free material

Part#	Cable Entry Size
TI228T9	Various inserts

Style A   Style B   Style C
.5" / 12.7mm

735 Series

- Accepts terminals up to 24mm
- Tunnel cap allows for various cable entry sizes and shapes
- Insulator can be zip-tied to cable
- Maximum terminal OD: .1.52"/34mm
- Maximum terminal height: 1.3"/38.6mm
- Available in halogen-free material

Part#	Cable Entry Size
TI234T9*	Various Inserts

Style A   Style B   Style C
.7" / 17.8mm

* V02= Red
V14= Black