

# Shearbolt® Connectors

Fast, Reliable Medium Voltage Connections

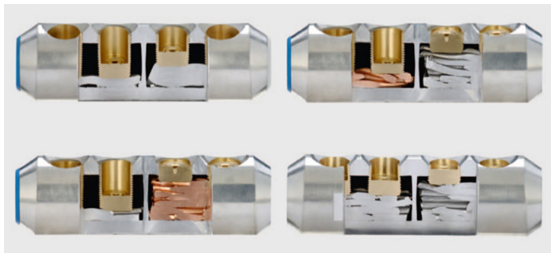


## RATINGS

- ANSI C119.4-2004
- ANSI Class 2 (40% RBS)
- Dual-Rated (AL/CU)

## ELECTRICAL PROPERTY

- Current Cycle Test - Class A @ 284°F (140°C) Conductor
- Mechanical Pullout Test -Class 2



## STEPLESS TECHNOLOGY

The stepless Shearbolt has no pre-set shear points in the threads and makes use of the maximum number of bolt threads possible to apply a compressive force to the conductor. The stepless technology ensures that the bolt will shear off below the surface of the connector, eliminating the need for filing sharp metal edges.

## HEX KEY BOLTS

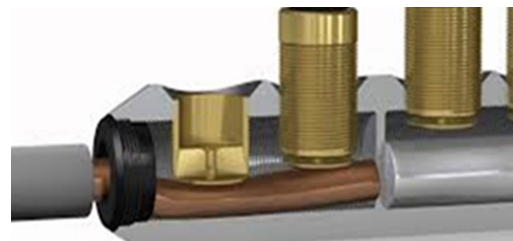
No special tools are required to install the connector since the shearbolts are equipped with hex key fittings. Only 5 mm, 6 mm, or 8 mm standard hex keys are needed.

## OVERVIEW

Prysmian Mechanical Shearbolt Connectors are designed to cover a wide range of conductor sizes from 6 AWG to 1500 kcmil. Individual sizes cover ranges from 6 AWG-3/0, 2 AWG-250 kcmil, 1/0 AWG -500 kcmil, 350-750 kcmil, 500-1000 kcmil and 750-1250 kcmil. The unique stepless Shearbolt design has no predetermined breaking points in the connector thread. Bolts always break flush with the surface of the connector body.

The design provides excellent performance and features not found in other mechanical connectors. They meet ANSI C119.4 and withstand the 40% pull out force (ANSI Class 2) required by IEEE-404. No compression dies or mechanical crimp tooling are required for installation. Following cable preparation, simply slide the connector over the conductor and tighten the bolts until they shear off.

Prysmian Mechanical Shearbolt Connectors are dual-rated (AL/CU) and tin-plated to resist corrosion. Compatible with the full line of Prysmian Elasppeed™ cold-applied splice kits, they offer the best medium voltage cable splicing solution.



## FRICTION DISC

As the bolt is tightened, the friction disc at the base of the bolt makes contact with the conductor and no longer rotates. The bolt rotates freely above the friction disc without putting torque on the conductor. This allows the shearbolt to apply the optimum amount of contact force without damaging even finely stranded conductors.

## COMPATIBILITY

Prysmian shearbolt connectors are designed to be compatible with Prysmian Elasppeed™ cold-applied splice kits. Two superior technologies provide for a quick and easy installation that saves time and cost over traditional methods.



## Prysmian

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ACS-DS-0007-1024

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FEATURE	ADVANTAGE	BENEFIT
Wide application range	Reduced number of connectors to accommodate cable sizes from #6 to 1,500 kcmil	Reduces accidental use of the wrong connector
Each connector covers multiple conductor sizes	Range-taking in each connector	Reduced inventory
Step-less shearhead bolts	Installs with simple ratchet-type socket wrench or cordless impact wrench	Eliminates need for heavy crimp tooling and special dies
Bolts are continuous shearing	Bolts shear at or below the connector surface	No time-consuming filing is needed
Friction disk stops rotating upon conductor contact	Provides increased contact force	Will not damage fine stranded conductors
Compact, smooth body design	Compatible with Prysmian Cold Shrink Elaseed™ Splices	An engineered system providing years of trouble-free performance
Torque-controlled shearhead bolts	Sheared head gives positive indication of correct installation	Provides positive feedback that the connection is fully tightened
Heavy-duty design	Connector bodies are made of high strength, tin-plated aluminum alloy	Provides long service life under normal operation conditions with reserve capacity.
Centering rings for small diameter conductors	Minimizes voltage stresses at transition from connector body to cable insulation.	No separate metal inserts required – less parts to handle.
Factory filled oxide-inhibiting compound	Abrades and penetrates the conductor oxides	Generates low initial contact resistance and long term reliability
Knurled Inner bore	Unique profile breaks through oxides and grips conductor strands	Generates low contact resistance & increases mechanical pullout strength. Meets Class 2, 40% RBS of the conductor.
Solid center stop	Mechanical barrier is impervious to oil	Accommodates transition applications from polymeric to PILC cable
Dual-rated	Designed and tested for use on both aluminum and copper conductors	Ideal for aluminum to copper conductor transitions
No crimping required	No crimping dies, crimp tooling or calibration of crimp tool required	Easy installation - particularly in confined spaces
Transitions between conductor sizes	One connector can easily accommodate size transitions	Eliminates use of adapters that can impede electrical conductivity

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## Shear Bolt Connectors

Catalog Description	Part Number	Connector Range AWG / kcmil	Connector Length w/Centering Rings Inches (mm)	Connector O.D. Inches (mm)	Hex Key Size	Number of Bolts
6-3/0-ALSB	CUS53825	#6 to 3/0	2.95 (75)	.95 (24)	5 mm	2
2-250-ALSB	CUS53821	#2 to 250	4.41 (112)	1.10 (28)	5 mm	4
1/0-500-ALSB	CUS53783	1/0 to 500	5.12 (130)	1.38 (35)	6 mm	4
350-750-ALSB	CUS53826	350 to 750	6.93 (176)	1.65 (42)	8 mm	6
500-1000-ALSB	CUS53919	500 to 1000	7.83 (199)	2.05 (52)	8 mm	6
750-1250-ALSB	CUS53828	750 to 1250	10.15 (258)	2.10 (53)	8 mm	8
1250-1500-ALSB	CUS54040	1250 to 1500	9.69 (246)	2.36 (60)	8 mm	8

## Two Hole Shear Bolt Lugs

Catalog Description	Part Number	Connector Range AWG / kcmil	Connector Length w/Centering Rings Inches (mm)	Connector O.D. Inches (mm)	Hex Key Size	Number of Bolts
7-3/0-ALSB2	CUS53822	#7 to 3/0	5.16 (131)	0.94 (24)	5 mm	2
2-250-ALSB2	CUS53939	#2 to 250	5.98 (152)	1.10 (28)	5 mm	2
4/0-500-ALSB2	CUS53829	4/0 to 450/500*	6.32 (161)	1.38 (35)	6 mm	2
500-750-ALSB2	CUS53942	500 to 750	7.54 (192)	1.65 (42)	8 mm	3
750-1000-ALSB2	CUS53943	750 to 1000	8.37 (213)	2.05 (52)	8 mm	3
1000-1250-ALSB2	CUS53945	1000 to 1250	8.37 (213)	2.05 (52)	8 mm	3
1250-1500-ALSB2	CUS53913	1250 to 1500	9.09 (231)	2.36 (60)	8 mm	4

Note: \*Applicable only to 500 kcmil compact conductor

## designs. Shear Bolt Pin Terminal

Catalog Description	Part Number	Connector Range AWG / kcmil	Connector Length w/Centering Rings Inches (mm)	Connector O.D. Inches (mm)	Hex Key Size	Number of Bolts
#2-4/0-ALSBPIN	CUS54041	#2 to 4/0	9.51 (241.5)	0.94 (24)	5 mm	1



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