

FIBERLIGN® U-BOLT DEAD-END

The **FIBERLIGN U-Bolt Dead-End** is designed to terminate Optical Ground Wire (OPGW) while minimizing any compressive stresses that may be transferred to the core or optical elements within it. The retaining rods couple with the wedges where they are received within the housing. As the U-Bolt is secured to the structure, the dead-end assembly distributes the axial and compressive loads along the length of the dead-end.

FEATURES AND BENEFITS

- One-piece housing and subset rods minimize overall components and simplify installation steps
- Slotted housing allows the dead-end to be applied at any location along the OPGW
- A ground wire assembly can be attached to the housing with the supplied galvanized 1/2"-13 x 1" UNC bolt and lock washer
- An optional ground wire assembly can be included with the U-Bolt Dead-End
- In addition to the maximum allowable 4" of take-up for tension adjustment, the U-Bolt provides approximately 20" of additional clearance distance, eliminating the need for extra hardware such as turnbuckles or extension links
- Dead-end components are made of corrosion-resistant materials
- Retaining rods and wedges can only be reused once for retensioning after initial installation. Hardware components of the dead-end can be reused if they are in good condition.
- The FIBERLIGN U-Bolt Dead-End has been thoroughly tested for vibration, mechanical loading, and optical attenuation in accordance with IEEE Standard 1138 and IEEE Standard 1591.1

HOLDING STRENGTH

- Designed and tested in accordance with IEEE Std 1138 and 1591.1
- Dependent on internal construction and composition of material used for individual strands of the OPGW
- Highest holding capabilities exist with cables that use all aluminum-clad steel strands in a single layer
- OPGW with multiple strand layers and/or aluminum alloy strands may reduce holding capabilities
- Contact PLP for U-Bolt Dead-End holding strengths for specific OPGW designs

ATTACHMENT FITTINGS

- An Anchor Shackle (**Catalog Number: AS-5L**) can be included with U-Bolt Dead-Ends
- U-Bolt Dead-Ends can be attached to poles or structures with pins, sheave wheels, or other fittings with smooth contours, appropriate diameters (see table below), and adequate strength for proper fit and support under loading conditions

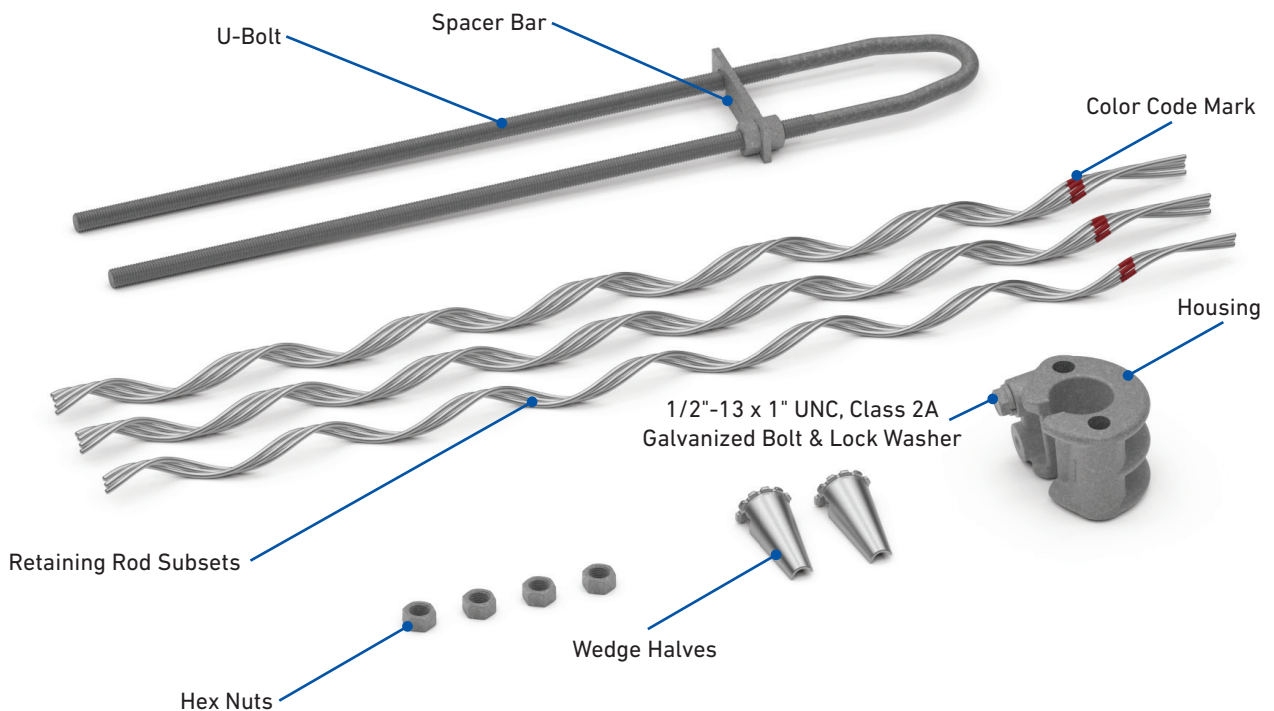
U-Bolt Dead-End Diameter	Attachment Fitting/Pin Diameter Range
5/8"	5/8" (15.9 mm) – 1-7/8" (47.6 mm)
3/4"	5/8" (15.9 mm) – 13/16" (20.6 mm)

- U-Bolt Dead-Ends can also be attached to a vang or structure plate with chamfered holes (ex. structure plate with maximum thickness of 1-1/16" (27 mm), 1" (25 mm) diameter hole, 1/8" x 45 degrees (3.2 mm x 45 degrees) chamfer, and 1-15/16" (24 mm) installation clearance)
- Consult PLP for installation to other plates and fittings



30,000 lb Anchor Shackle
(Catalog Number: AS-5L)

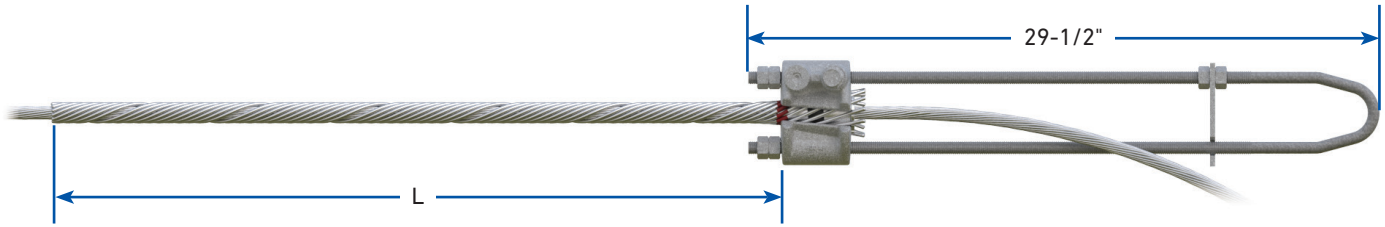
COMPONENTS



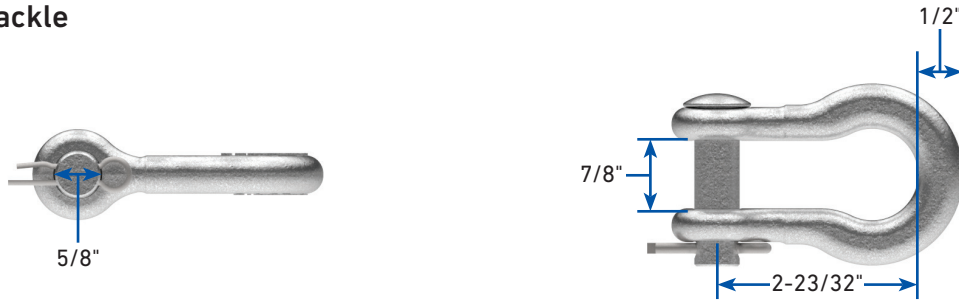


DIMENSIONS

U-Bolt Dead-End Assembly



AS-5L Anchor Shackle



ACCESSORIES

Catalog Number	Suffix Code	Description
710010016	G	4 ft (1.2 m) Long #4 (7W) Copper Ground Wire Assembly with One Terminal for 1/2" Bolt
710010294	GA	4 ft (1.2 m) Long 4/0 (7W) Aluminum Ground Wire Assembly with One Terminal for 1/2" Bolt
710011205	GA2	5 ft (1.5 m) Long 95 mm ² (19W) Aluminum Ground Wire Assembly with One Terminal for M12 Bolt and One Terminal for M16 Bolt – Includes bolts, washers, lock washers, and hex nuts for each terminal
AS-5L	S2	30,000 lb Anchor Shackle



4 ft (1.2 m) Long #4 (7W) Copper Ground Wire Assembly
(Catalog Number: 710010016, Suffix Code: G)



4 ft (1.2 m) Long 4/0 (7W) Aluminum Ground Wire Assembly
(Catalog Number: 710010294, Suffix Code: GA)



5 ft (1.5 m) Long 95 mm² (19W) Aluminum Ground Wire Assembly
(Catalog Number: 710011205, Suffix Code: GA2)



ORDERING INFORMATION

- Select the appropriate catalog number for the dead-end from the table below based on the diameter of the OPGW.
- Add the appropriate suffix code to the dead-end catalog number to include an anchor shackle and/or ground wire assembly (**ex: Catalog Number 2801304S2, 2801304G, or 2801301S2G**) - see ACCESSORIES on the previous page for suffix codes.
- Refer to the image under DIMENSIONS on the previous page for the Exposed Rod Length measurement listed in the table below.
- Standard U-Bolt Dead-Ends include left-hand lay retaining rods. Custom U-Bolt Dead-Ends with right-hand lay retaining rods are available. Contact PLP with OPGW specifications for further information.

FIBERLIGN U-Bolt Dead-End

Catalog Number	Cable Diameter Range		U-Bolt Diameter	Overall Rod Length		Rods per Set	Subsets	Color Code	Component's Rated Strength	Exposed Rod Length for VORTX™ Damper Placement "L"	
	in	mm		in	mm					lb	in
280110266	0.358 – 0.374	9.1 – 9.5	5/8	24	610	9	3-3-3	Blue	25,000	21	533
2801300	0.375 – 0.391	9.6 – 9.9	5/8	24	610	9	3-3-3	Pink	25,000	21	533
2801301	0.392 – 0.410	10.0 – 10.3	5/8	24	610	9	3-3-3	Pink	25,000	21	533
2801302	0.411 – 0.425	10.4 – 10.7	5/8	26	660	10	3-3-4	White	25,000	23	584
2801303	0.426 – 0.443	10.8 – 11.2	5/8	26	660	10	3-3-4	White	25,000	23	584
2801304	0.444 – 0.460	11.3 – 11.6	5/8	27	686	10	3-3-4	Brown	25,000	24	609
2801305	0.461 – 0.477	11.7 – 12.0	5/8	27	686	10	3-3-4	Brown	25,000	24	609
2801306	0.478 – 0.494	12.1 – 12.5	5/8	29	737	11	3-4-4	Purple	25,000	26	660
2801307	0.495 – 0.511	12.6 – 12.9	5/8	29	737	11	3-4-4	Purple	25,000	26	660
2801308	0.512 – 0.528	13.0 – 13.3	5/8	31	787	12	3-3-3-3	Yellow	25,000	28	711
2801309	0.529 – 0.545	13.4 – 13.8	5/8	31	787	12	3-3-3-3	Yellow	25,000	28	711
2801310	0.546 – 0.562	13.9 – 14.2	5/8	32	813	12	3-3-3-3	Blue	25,000	29	737
2801311	0.563 – 0.579	14.3 – 14.6	5/8	32	813	12	3-3-3-3	Blue	25,000	29	737
2801312	0.580 – 0.596	14.7 – 15.1	5/8	34	864	12	3-3-3-3	Orange	25,000	31	787
2801313	0.597 – 0.613	15.2 – 15.5	5/8	34	646	12	3-3-3-3	Orange	25,000	31	787
2801314	0.614 – 0.630	15.6 – 15.9	5/8	36	914	11	3-4-4	Red	25,000	33	838
2801315	0.631 – 0.647	16.0 – 16.4	5/8	36	914	11	3-4-4	Red	25,000	33	838
2801316	0.648 – 0.664	16.5 – 16.9	5/8	38	965	12	3-3-3-3	Black	25,000	35	889
2801317	0.665 – 0.681	17.0 – 17.2	5/8	38	965	12	3-3-3-3	Black	25,000	35	889
2801318	0.682 – 0.698	17.3 – 17.7	5/8	40	1,016	12	3-3-3-3	Green	25,000	37	938
2801319	0.699 – 0.715	17.8 – 18.0	5/8	40	1,016	12	3-3-3-3	Green	25,000	37	938
2801320	0.716 – 0.732	18.1 – 18.5	5/8	41	1,041	12	3-3-3-3	Brown	25,000	38	965
2801321	0.733 – 0.749	18.6 – 18.9	5/8	41	1,041	12	3-3-3-3	Brown	25,000	38	965
2801322	0.750 – 0.766	19.0 – 19.4	3/4	59	1,499	12	3-3-3-3	Purple	45,000	56	1,422
2801323	0.767 – 0.783	19.5 – 19.8	3/4	59	1,499	12	3-3-3-3	Purple	45,000	56	1,422
2801324	0.784 – 0.800	19.9 – 20.2	3/4	64	1,626	12	3-3-3-3	Yellow	45,000	61	1,549
2801325	0.801 – 0.817	20.3 – 20.7	3/4	64	1,626	12	3-3-3-3	Yellow	45,000	61	1,549
2801326	0.818 – 0.834	20.8 – 21.1	3/4	66	1,676	13	3-3-3-4	Blue	45,000	63	1,600
2801327	0.835 – 0.851	21.2 – 21.5	3/4	66	1,676	13	3-3-3-4	Blue	45,000	63	1,600
2801328	0.852 – 0.868	21.6 – 22.0	3/4	70	1,778	12	3-3-3-3	Orange	45,000	67	1,701
2801329	0.869 – 0.885	22.1 – 22.4	3/4	70	1,778	12	3-3-3-3	Orange	45,000	67	1,701
2801330	0.886 – 0.902	22.5 – 22.8	3/4	72	1,829	12	3-3-3-3	Red	45,000	69	1,753
2801331	0.903 – 0.919	22.9 – 23.2	3/4	72	1,829	12	3-3-3-3	Red	45,000	69	1,753
2801332	0.920 – 0.936	23.3 – 23.8	3/4	74	1,880	13	3-3-3-4	Black	45,000	71	1,803

1 DEAD-ENDS