



PREFORMED LINE PRODUCTS
The connection you can count on.

Section 5 - OPGW Fittings & Closures

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FIBERLIGN® Dead-end



The FIBERLIGN® Dead-end is designed to terminate Optical Ground Wire (OPGW) while minimising any compression stresses that may be transferred to the core or optical elements within. The combination of retaining rods, wedge and housing distribute axial and compressive loading over a large area of the OPGW cable. Left-hand or right-hand lay style is provided to suit left-hand or right-hand lay OPGW respectively.

The slotted housing design allows for the application of the FIBERLIGN® Dead-end at any location on the OPGW.

Integral Bonding Point:

Provisions for electrically bonding the OPGW to the supporting structure or ground lead are an integral part of the housing. An earth bonding lead pre assembled with compression terminals is included in the kit. This assembly can be connected from the FIBERLIGN® Dead-end to the ground point in your system.

A second earth bonding lead can be connected for higher fault current requirement. Consult PLP for recommendations.

Sag Adjustment:

The U-bolt provides up to 450 mm of take-up to allow for tension adjustment and extra clearance distance, without the need for additional hardware such as a turnbuckle or extension links.

- Product subject to cable design, constructions and testing
- Contact PLP with project and cable specification for product recommendation

FIBERLIGN® Dead-end



OPGWTS

FIBERLIGN® Dead-end

| Assembly Part Number | Cable Diameter Range (mm) | Colour Code |
|----------------------|---------------------------|-------------|
| OPGWTS-0900* | 9.00 - 9.49 | Pink |
| OPGWTS-0950* | 9.50 - 9.99 | Orange |
| OPGWTS-1000* | 10.00 - 10.39 | Red |
| OPGWTS-1040* | 10.40 - 10.79 | Black |
| OPGWTS-1080* | 10.80 - 11.29 | Green |
| OPGWTS-1130* | 11.30 - 11.69 | Brown |
| OPGWTS-1170* | 11.70 - 12.09 | Purple |
| OPGWTS-1210* | 12.10 - 12.59 | Yellow |
| OPGWTS-1260* | 12.60 - 12.99 | Blue |
| OPGWTS-1300* | 13.00 - 13.39 | White |
| OPGWTS-1340* | 13.40 - 13.89 | Orange |
| OPGWTS-1390* | 13.90 - 14.29 | Red |
| OPGWTS-1430* | 14.30 - 14.60 | Black |
| OPGWTS-1461* | 14.61 - 15.10 | Green |
| OPGWTS-1511* | 15.11 - 15.50 | Brown |
| OPGWTS-1551* | 15.51 - 15.99 | Purple |
| OPGWTS-1600* | 16.00 - 16.40 | Yellow |
| OPGWTS-1641* | 16.41 - 16.99 | Blue |
| OPGWTS-1700* | 17.00 - 17.20 | White |
| OPGWTS-1721* | 17.21 - 17.70 | Orange |
| OPGWTS-1771* | 17.71 - 18.00 | Red |
| OPGWTS-1801* | 18.01 - 18.50 | Black |
| OPGWTS-1851*-2E | 18.51 - 19.00 | Brown |
| OPGWTS-1901*-2E | 19.01 - 19.40 | Purple |
| OPGWTS-1941*-2E | 19.41 - 19.80 | Purple |
| OPGWTS-1981*-2E | 19.81 - 20.20 | Yellow |
| OPGWTS-2021*-2E | 20.21 - 20.70 | Yellow |
| OPGWTS-2071*-2E | 20.71 - 21.10 | Blue |
| OPGWTS-2111*-2E | 21.11 - 21.50 | Blue |
| OPGWTS-2151*-2E | 21.51 - 22.00 | Orange |
| OPGWTS-2201*-2E | 22.01 - 22.40 | Orange |
| OPGWTS-22.41*-2E | 22.41 - 22.80 | Red |
| OPGWTS-2281*-2E | 22.81 - 23.20 | Red |
| OPGWTS-2321*-2E | 23.21 - 23.80 | Black |

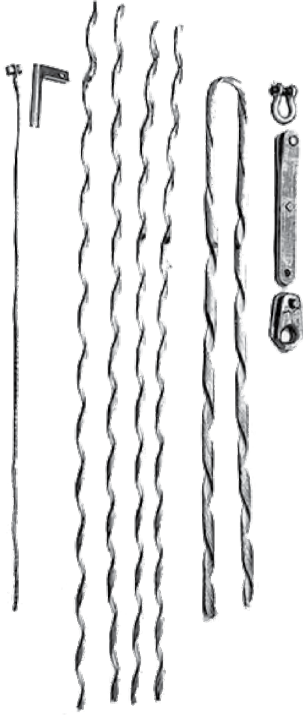
Note: -2E denotes 2 x earth bonding leads for high fault current OPGW.

* Substitute L for left hand Lay conductors

* Substitute R for Right Hand Lay conductors

| |
|------------------------------|
| OPGWTS - Assembly contents |
| Wedge Type Dead-end Assembly |
| 70 kN Shackle |
| Earth bonding lead with lugs |

FIBERLIGN® Formed Wire Dead-end



The FIBERLIGN® Formed Wire Dead-end offers an alternate method for dead-ending OPGW. Unlike the FIBERLIGN® Dead-end “U-Bolt Type” design shown at the beginning of this section, the Formed Wire Dead-end uses two helically shaped formed wire components: an inner layer of Structural Reinforcing Rods and an outer layer Dead-end component. The formed wire inner and outer layer components are designed to transfer axial tensile loads and distribute radial compressive forces over the surface in contact with the OPGW to minimize effects on the central core and internal optical fibers. Standard designs offered for left-hand lay single layer strand OPGW are listed in the table in this section. The standard Structural Reinforcing Rod component is right-hand lay and the standard Dead-end Component is left-hand lay.

The rated breaking strength of OPGW with multi-layer strand construction may exceed the rated holding strength of a Formed Wire Dead-end. Consult PLP before using this product for multi-layer applications. Useful dimensions for VORTX™ damper placement are listed in the catalogue table and shown in a reference drawing above the catalogue table.

Current Transfer Tab:

The Current Transfer Tab provides direct electrical bonding between the OPGW and a ground lead. The Structural Reinforcing Rod Layer conveniently applies proper compression to retain the current transfer tab against the OPGW without fasteners. The current transfer tab has a $\varnothing 12.5\text{mm}$ diameter bolt hole to accommodate a standard M10 bolt, for compatible ground lug attachment. The standard current transfer tab accommodates left-hand lay OPGW and is rated for 80 kA2S to 150 kA2S depending on size of dead-end unit. Right-hand lay units for special applications are also available. Consult PLP for specifics.

Component Strength:

The strength of the thimble clevis, extension link, and anchor shackle are designed to meet or exceed the maximum rated holding strength. Refer to PLP drawings for recommendations.

Holding Strength:

Specific holding strengths on an OPGW cable will depend upon that cable's internal construction design and composition of the materials used for the individual strands. The highest holding capabilities exist with cable that use all aluminium clad steel strands in a single layer. Use of multi-layer and/or aluminium alloy strands may reduce holding capabilities. Consult PLP for information regarding holding abilities of the FIBERLIGN® Formed Wire Dead-end for a specific OPGW design.

Lay Direction:

Left-hand lay is standard. Right-hand lay units for right-hand lay OPGW are available. Contact PLP with cable specifications for further information.

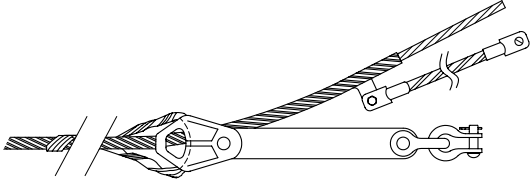
Component Reuse:

Once installed, structural reinforcing rods and dead-end components may be removed and reinstalled once for repositioning purposes; do not reuse after this initial installation. The hardware components may be reused as long as they are in good condition. Do not modify any components.

FIBERLIGN® Formed Wire Dead-end

OPGWFWTS

FIBERLIGN® Formed Wire Dead-end



| String Assembly Part Number | Conductor Diameter Range (mm) | Colour Code |
|-----------------------------|-------------------------------|-------------|
| OPGWFWTS-0900# | 9.00 - 10.15 | Brown |
| OPGWFWTS-1016# | 10-16 - 11.40 | Blue |
| OPGWFWTS-1141# | 11.41 - 12.80 | Red |
| OPGWFWTS-1281# | 12.81 - 14.10 | Orange |
| OPGWFWTS-1411# | 14.11 - 15.49 | Black |
| OPGWFWTS-1550# | 15.50 - 17.27 | Green |
| OPGWFWTS-1728# | 17.28 - 19.18 | Pink |

FIBERLIGN® Suspension



The FIBERLIGN® Suspension provides superior cable and fibre protection at the support point. The combination of structural reinforcing rods, outer rods, 'boltless' housing and resilient inserts reduces compression, clamping, and bending stresses on cable. Negative effects of wind-induced cable motion, such as aeolian vibration, galloping, and wind sway are also minimised. Left-hand or right-hand lay style is provided to suit left-hand or right-hand lay OPGW respectively.

Integral grounding point:

The current transfer tab provides direct electrical bonding between OPGW and a ground lead. The current transfer tab eliminates current transfer through components of the suspension unit.

Grounding wire assembly options:

An earth bonding lead with compression terminal are provided. This assembly can be connected from the FIBERLIGN® Suspension to the ground point in your system. Higher fault current requirements can be accommodated by the use of a 'higher rated' current transfer tab or a second earth bonding lead. Consult PLP for recommendation.

Line Angles:

The maximum recommended line angle for a single FIBERLIGN® Suspension is 30°. For OPGW line angles between 30° and 60°, the FIBERLIGN® Suspension: Double is recommended, although double dead-ending is another option.

- Product subject to cable design, constructions and testing
- Contact PLP with project and cable specification for product recommendation

FIBERLIGN® Suspension - Single



Note: -2E denotes 2x earth bonding leads

* Substitute L for left hand Lay conductors

* Substitute R for Right Hand Lay conductors

| OPGWSS - Assembly contents |
|--|
| Suspension body |
| Structural rods |
| Outer rods |
| Current transfer tab with M16 Assembly |
| 70 kN shackle |
| 70 kN eye tongue |
| Earth bonding lead with lugs |

OPGWSS

FIBERLIGN® Suspension Single

| Single Part Number | Double Part Number | Diameter Range (mm) | Colour Code Inner | Colour Code Outer |
|--------------------|--------------------|---------------------|-------------------|-------------------|
| OPGWSS-0900*C | OPGWDSS-0900* | 9.00 - 9.68 | Blue | Blue |
| OPGWSS-0969*C | OPGWDSS-0969* | 9.69 - 10.11 | Green | Green |
| OPGWSS-1012*C | OPGWDSS-1012* | 10.12 - 10.62 | Yellow | Yellow |
| OPGWSS-1063*C | OPGWDSS-1063* | 10.63 - 11.15 | Black | Black |
| OPGWSS-1116*C | OPGWDSS-1116* | 11.16 - 11.63 | White | White |
| OPGWSS-1164*C | OPGWDSS-1164* | 11.64 - 11.71 | Purple | Orange |
| OPGWSS-1172*C | OPGWDSS-1172* | 11.72 - 12.09 | Purple | Purple |
| OPGWSS-1210*C | OPGWDSS-1210* | 12.10 - 12.78 | Orange | Orange |
| OPGWSS-1279*C | OPGWDSS-1279* | 12.79 - 12.98 | Red | Purple |
| OPGWSS-1299*C | OPGWDSS-1299* | 12.99 - 13.61 | Blue | Blue |
| OPGWSS-1362*C | OPGWDSS-1362* | 13.62 - 14.20 | Green | Green |
| OPGWSS-1421*C | OPGWDSS-1421* | 14.21 - 14.35 | Green | Green |
| OPGWSS-1436*C | OPGWDSS-1436* | 14.36 - 14.55 | Black | Black |
| OPGWSS-1456*C | OPGWDSS-1456* | 14.56 - 15-19 | Black | White |
| OPGWSS-1520*C | OPGWDSS-1520* | 15.20 - 15-80 | Brown | Brown |
| OPGWSS-1581*C | OPGWDSS-1581* | 15.81 - 16.05 | Red | Red |
| OPGWSS-1581*-2E | - | 15.81 - 16.05 | Red | Red |
| OPGWSS-1606*C | OPGWDSS-1606* | 16.06 - 16.92 | Red | Blue |
| OPGWSS-1606*-2E | - | 16.06 - 16.92 | Red | Blue |
| OPGWSS-1693*C | OPGWDSS-1693* | 16.93 - 17.32 | Yellow | Green |
| OPGWSS-1693*-2E | - | 16.93 - 17.32 | Yellow | Green |
| OPGWSS-1733*C | OPGWDSS-1733* | 17.33 - 18.03 | Yellow | Yellow |
| OPGWSS-1733*-2E | - | 17.33 - 18.03 | Yellow | Yellow |
| OPGWSS-1804*C | OPGWDSS-1804* | 18.04 - 18.49 | White | Black |
| OPGWSS-1804*-2E | - | 18.04 - 18.49 | White | Black |
| OPGWSS-1850*C | OPGWDSS-1850* | 18.50 - 18.90 | White | White |
| OPGWSS-1891*C | OPGWDSS-1891* | 18.91 - 19.05 | White | White |

OPGWDSS

FIBERLIGN® Suspension Double



| OPGWDSS - Assembly Contents |
|---|
| Suspension body x2 |
| Structural rods |
| Outer rods |
| Triangular yoke plate |
| Shackles x2 |
| Clevis Tongue x2 |
| Earth bonding lead with lugs and current transfer tab |

FIBERLIGN® Cushion Clamp



The FIBERLIGN® Cushion Clamp provides excellent protection to OPGW at support points. The combination of the Structural Reinforcing Rods and the elastomer inserts at the ends of the clamp body halves reduces bending stresses on the OPGW during aeolian vibration or galloping activity. The Cushion Clamp is designed to suit LV or HV power systems with spans up to 250m. For spans greater than 250m, FIBERLIGN® Suspension or support are recommended.

Lay Direction:

The Cushion Clamp can accommodate either left-hand lay or right-hand lay OPGW.

Line Angles:

The maximum recommended line angle for a single FIBERLIGN® Cushion Clamp is 30°. For line angles up to 60°, the Double suspension cushion clamp is recommended.

- Product subject to cable design, constructions and testing
- Contact PLP with project and cable specification for product recommendation

FIBERLIGN® Cushion Clamp



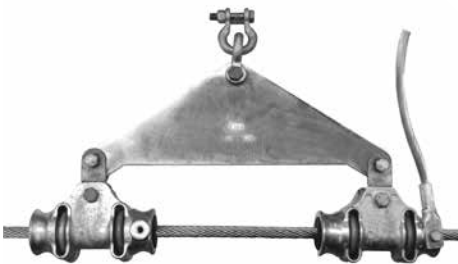
OPGWCCS

FIBERLIGN® Cushion Clamp Suspension

| Assembly Part Number | Cable Diameter Range (mm) |
|----------------------|---------------------------|
| OPGWCCS-090098 | 9.00 - 9.80 |
| OPGWCCS-099109 | 9.90 - 10.90 |
| OPGWCCS-110116 | 11.00 - 11.6 |
| OPGWCCS-117122 | 11.70 - 12.20 |
| OPGWCCS-123128 | 12.30 - 12.80 |
| OPGWCCS-129136 | 12.90 - 13.60 |
| OPGWCCS-137143 | 13.70 - 14.30 |
| OPGWCCS-144148 | 14.40 - 14.80 |
| OPGWCCS-149156 | 14.90 - 15.60 |
| OPGWCCS-157163 | 15.70 - 16.30 |
| OPGWCCS-164168 | 16.40 - 16.80 |
| OPGWCCS-177183 | 17.70 - 18.30 |
| OPGWCCS-184188 | 18.40 - 18.80 |
| OPGWCCS-189196 | 18.90 - 19.60 |
| OPGWCCS-197202-2E | 19.61 - 20.20 |
| OPGWCCS-209217-2E | 20.90 - 21.70 |
| OPGWCCS-232239-2E | 23.20 - 23.90 |
| OPGWCCS-256263-2E | 25.60 - 26.30 |

| OPGWCCS - Assembly contents |
|-----------------------------|
| Cushion Clamp |
| 70kN shackle |
| Earth Bonding Lead |

Note: -2E denotes 2x earth bonding leads



OPGWDCCS

FIBERLIGN® Double Cushion Clamp Suspension

| Assembly Part Number | Cable Diameter Range (mm) |
|----------------------|---------------------------|
| OPGWDCCS-090098 | 9.00 - 9.80 |
| OPGWDCCS-099109 | 9.90 - 10.90 |
| OPGWDCCS-110116 | 11.00 - 11.6 |
| OPGWDCCS-117122 | 11.70 - 12.20 |
| OPGWDCCS-123128 | 12.30 - 12.80 |
| OPGWDCCS-129136 | 12.90 - 13.60 |
| OPGWDCCS-137143 | 13.70 - 14.30 |
| OPGWDCCS-144148 | 14.40 - 14.80 |
| OPGWDCCS-149156 | 14.90 - 15.60 |
| OPGWDCCS-157163 | 15.70 - 16.30 |
| OPGWDCCS-164168 | 16.40 - 16.80 |
| OPGWDCCS-177183 | 17.70 - 18.30 |
| OPGWDCCS-184188 | 18.40 - 18.80 |
| OPGWDCCS-189196 | 18.90 - 19.60 |
| OPGWDCCS-197202-2E | 19.61 - 20.20 |
| OPGWDCCS-209217-2E | 20.90 - 21.70 |
| OPGWDCCS-232239-2E | 23.20 - 23.90 |
| OPGWDCCS-256263-2E | 25.60 - 26.30 |

| OPGWDCCS - Assembly contents |
|------------------------------|
| Cushion Clamp x2 |
| 70kN shackle x2 |
| Clevis Tongue x2 |
| Triangular Yoke Plate |
| Earth Bonding Lead |

FIBERLIGN® OPGW Accessories



OPGWRR

FIBERLIGN® Repair Rod

FIBERLIGN® Repair Rods are designed as a single component, outer layer assembly for use on OPGW. It is intended to repair the outer mechanical strand members on an OPGW cable. This is not an optical repair product.

These OPGW Repair Rods are not designed or tested as splices for use on all-metal overhead earth wire and are not intended for that application.

- Product subject to cable design, constructions and testing
- Contact PLP with project and cable specification for product recommendation

| Assembly Part Number | Cable Diameter Range (mm) | Colour Code |
|----------------------|---------------------------|-------------|
| OPGWRR-3600100* | 8.90 - 9.70 | Red |
| OPGWRR-3600101* | 9.80 - 10.70 | Black |
| OPGWRR-3600102* | 10.80 - 11.60 | Orange |
| OPGWRR-3600103* | 11.70 - 12.80 | Green |
| OPGWRR-3600104* | 12.90 - 13.90 | Blue |
| OPGWRR-3600105* | 14.00 - 15.20 | Yellow |
| OPGWRR-3600106* | 15.30 - 16.70 | Brown |
| OPGWRR-3600107* | 16.80 - 18.20 | Purple |
| OPGWRR-3600108* | 18.30 - 19.90 | Pink |

Note:

- * Substitute L for left hand Lay conductors
- * Substitute R for Right Hand Lay conductors

OFDLC

FIBERLIGN® Downlead Cushion For Concrete or Steel Poles



The FIBERLIGN® Downlead Cushion will accommodate one or two OPGW or other cables as necessary. The base of the clamp is of die-cast aluminium, whereas the top is a polymeric material. The base ensures electrical bonding of the OPGW and the top minimises compressive forces which could be transferred through to the optical elements of the cable.

| Part Number | Cable Diameter Range (mm) |
|----------------|---------------------------|
| OFDLC-8003041B | 9.50 - 11.80 |
| OFDLC-8003042B | 11.90 - 14.30 |
| OFDLC-8003043B | 14.40 - 16.60 |
| OFDLC-8003044B | 16.70 - 19.10 |

FIBERLIGN® OPGW Accessories

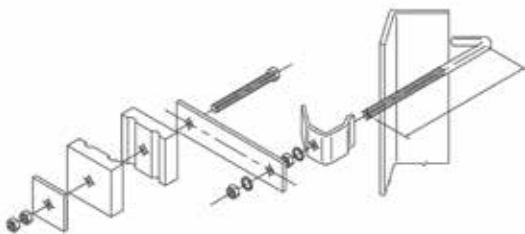
OFDLM

FIBERLIGN® Downlead Cushion



The FIBERLIGN® Downlead Cushion tower attachment will, with the change of only one component, fit any steel angle size to be found in a transmission line lattice-steel type tower without any drilling or other tower modification.

The actual clamping device will accommodate one or two OPGW or other cables as necessary. The base of the clamp is of die-cast aluminium, whereas the top is a polymeric material. The base ensures electrical bonding of the OPGW and the top minimises compressive forces which could be transferred through to the optical elements of the cable.



| Part Number | Cable Diameter Range (mm) | Tower Angle Width (mm) |
|-------------|---------------------------|------------------------|
| OFDLM-01-A | 9.50 - 11.80 | 45 - 100 |
| OFDLM-01-B | 11.90 - 14.30 | 45 - 100 |
| OFDLM-01-C | 14.40 - 16.60 | 45 - 100 |
| OFDLM-01-D | 16.70 - 19.10 | 45 - 100 |
| OFDLM-02-A | 9.50 - 11.80 | 110 - 150 |
| OFDLM-02-B | 11.90 - 14.30 | 110 - 150 |
| OFDLM-02-C | 14.40 - 16.60 | 110 - 150 |
| OFDLM-02-D | 16.70 - 19.10 | 110 - 150 |
| OFDLM-03-A | 9.50 - 11.80 | 160 - 200 |
| OFDLM-03-B | 11.90 - 14.30 | 160 - 200 |
| OFDLM-03-C | 14.40 - 16.60 | 160 - 200 |
| OFDLM-03-D | 16.70 - 19.10 | 160 - 200 |
| OFDLM-04-A | 9.50 - 11.80 | 210 - 250 |
| OFDLM-04-B | 11.90 - 14.30 | 210 - 250 |
| OFDLM-04-C | 14.40 - 16.60 | 210 - 250 |
| OFDLM-04-D | 16.70 - 19.10 | 210 - 250 |

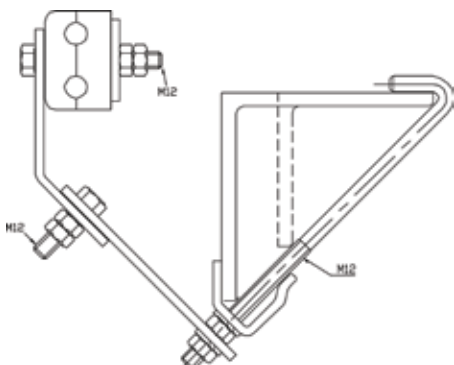
OFDLM

FIBERLIGN® Downlead Cushion With 45° Extension



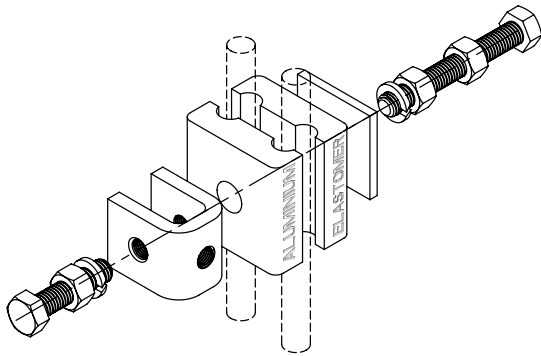
Features:

- For extra extension and greater mobility
- Available in either 2 or 4 cable clamping configuration



| Part Number Double Clamp | Part Number Quad Clamp | Cable Diameter Range (mm) | Tower Angle Width (mm) |
|--------------------------|------------------------|---------------------------|------------------------|
| OFDLM-01-A-2 | OFDLM-01-A-4 | 9.50 - 11.80 | 45 - 100 |
| OFDLM-01-B-2 | OFDLM-01-B-4 | 11.90 - 14.30 | 45 - 100 |
| OFDLM-01-C-2 | OFDLM-01-C-4 | 14.40 - 16.60 | 45 - 100 |
| OFDLM-01-D-2 | OFDLM-01-D-4 | 16.70 - 19.10 | 45 - 100 |
| OFDLM-02-A-2 | OFDLM-02-A-4 | 9.50 - 11.80 | 110 - 150 |
| OFDLM-02-B-2 | OFDLM-02-B-4 | 11.90 - 14.30 | 110 - 150 |
| OFDLM-02-C-2 | OFDLM-02-C-4 | 14.40 - 16.60 | 110 - 150 |
| OFDLM-02-D-2 | OFDLM-02-D-4 | 16.70 - 19.10 | 110 - 150 |
| OFDLM-03-A-2 | OFDLM-03-A-4 | 9.50 - 11.80 | 160 - 200 |
| OFDLM-03-B-2 | OFDLM-03-B-4 | 11.90 - 14.30 | 160 - 200 |
| OFDLM-03-C-2 | OFDLM-03-C-4 | 14.40 - 16.60 | 160 - 200 |
| OFDLM-03-D-2 | OFDLM-03-D-4 | 16.70 - 19.10 | 160 - 200 |
| OFDLM-04-A-2 | OFDLM-04-A-4 | 9.50 - 11.80 | 210 - 250 |
| OFDLM-04-B-2 | OFDLM-04-B-4 | 11.90 - 14.30 | 210 - 250 |
| OFDLM-04-C-2 | OFDLM-04-C-4 | 14.40 - 16.60 | 210 - 250 |
| OFDLM-04-D-2 | OFDLM-04-D-4 | 16.70 - 19.10 | 210 - 250 |

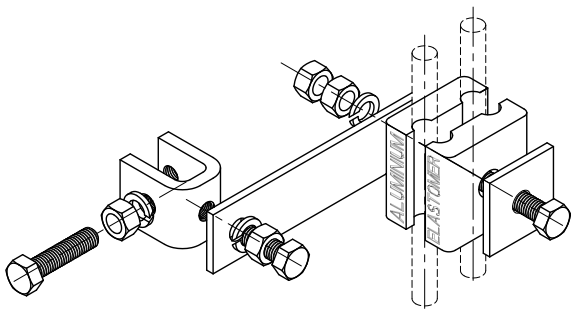
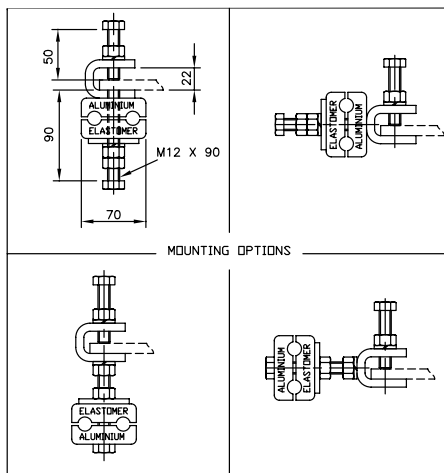
FIBERLIGN® OPGW Accessories



OFDLM-22

FIBERLIGN® Download Cushion Mount
For Tower/Stobie Pole

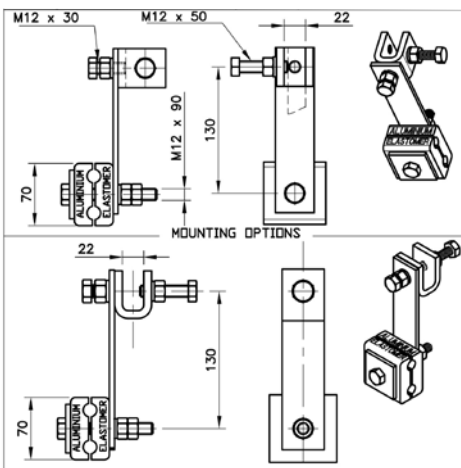
| Part Number | Conductor Diameter Range (mm) |
|-----------------|-------------------------------|
| OFDLM-22-095118 | 9.5 - 11.8 |
| OFDLM-22-119143 | 11.9 - 14.3 |
| OFDLM-22-144166 | 14.4 - 16.6 |
| OFDLM-22-167191 | 16.7 - 19.11 |
| OFDLM-22-192215 | 9.2 - 21.5 |
| OFDLM-22-216241 | 21.6 - 24.1 |



OFDLM-22E

FIBERLIGN® Download Tower 22mm, 130mm Extension

| Part Number | Conductor Diameter Range (mm) |
|------------------|-------------------------------|
| OFDLM-22E-095118 | 9.5 - 11.8 |
| OFDLM-22E-119143 | 11.9 - 14.3 |
| OFDLM-22E-144166 | 14.4 - 16.6 |
| OFDLM-22E-167191 | 16.7 - 19.11 |
| OFDLM-22E-192215 | 9.2 - 21.5 |
| OFDLM-22E-216241 | 21.6 - 24.1 |



COYOTE® Splice Case



Versatile:

The COYOTE® Closure Case is very versatile accommodating a wide variety of optical fibre cables. It effectively maintains an airtight, watertight seal around all types of fibre optic cable.

Easy to use:

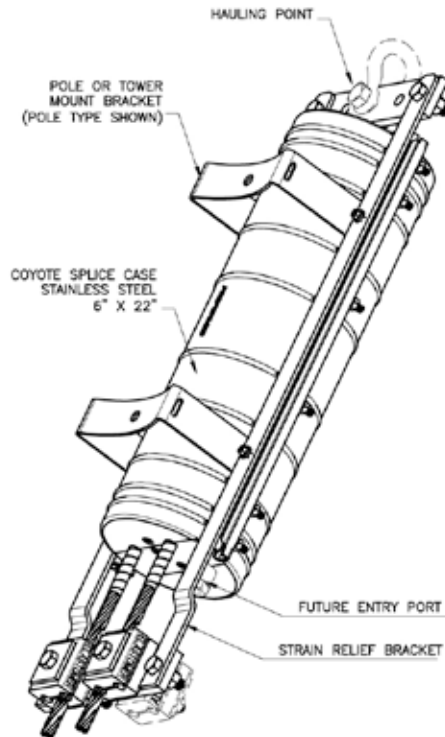
The COYOTE® Splice Case offers easy-to-use Lockbar™ fastening, reducing splice case installation and re-entry time. It can be easily re-entered without a special kit or special tools.

Secure:

The splice case remains secure whether the application is overhead or underground. Mounting brackets for overhead installation are available for wood poles, concrete/steel poles or transmission towers. The COYOTE® Splice Case is packaged to order for each communication application.

Features:

- Maintains an airtight and watertight seal
- Corrosion resistant
- Sealing system eliminates drilling and ‘heat shrink’ requirements
- Rapid installation and re-entry without special tools
- Splicing up to 864 fibres
- Versatile fibre management system



TYPICAL ASSEMBLY INCLUSIVE OF:

- COYOTE SPLICE CASE
- POLE OR TOWER MOUNT BRACKET
- STRAIN RELIEF BRACKET WITH HAULING POINT

COYOTE® Splice Case



CSL

Stainless Steel For OPGW Applications - 6.5" x 22"

OPGW Kit Contents Include:

- Splice Trays – 12/24 fibres per tray standard
- Maximum of 5 standard trays – 120 fibres
- Maximum of 6 low profile trays – 144 fibres
- Tower or pole mounting bracket
- PLP lock tape sealing system with c-cement
- Strain relief bracket
- Applications procedure with every kit
- PLP future entry port

Part Number

CSL***



Please contact PLP with the following information:

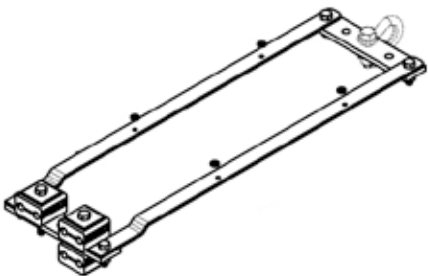
- Splice capacity required
- Loose or Uni-tube storage
- Number of entries – maximum of 4
- Cable diameters
- Strain relief bracket requirements
- Mounting hardware requirements
- Future entry port requirements
- Contact PLP for higher fibre capacity

Other size stainless steel closures are available:

- 6.6" x 22" - 180 max splice count (standard tray)
- 6.5" x 28" - 180 max splice count (standard trays)
- 8" x 28" - 252 max splice count (standard trays)
- 9.5" x 28" - 360 max splice count (standard trays)

OFSRB

Strain Relief Bracket



Part Number

OFSRB-065B-#####

- Securing Cables at entry point of splice case
- Strain relief

COYOTE® Splice Case Mounting Hardware

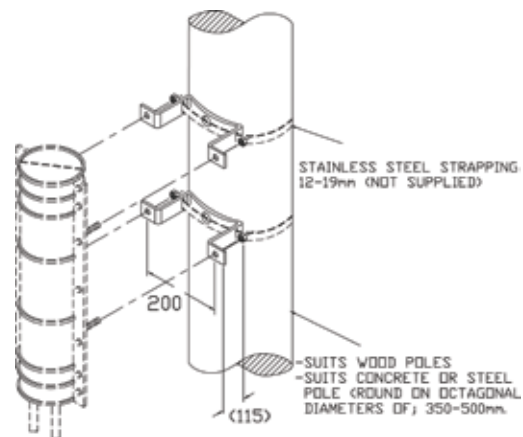


OFSCMOUNT Pole Mounting Bracket

Features:

- Suitable for wood, Concrete and Steel Poles
- Diameters of 350-500mm Standard
- 1 set includes 2 x brackets to install 1 COYOTE® Splice Case

| Part Number |
|--------------|
| OFSCMOUNT-04 |

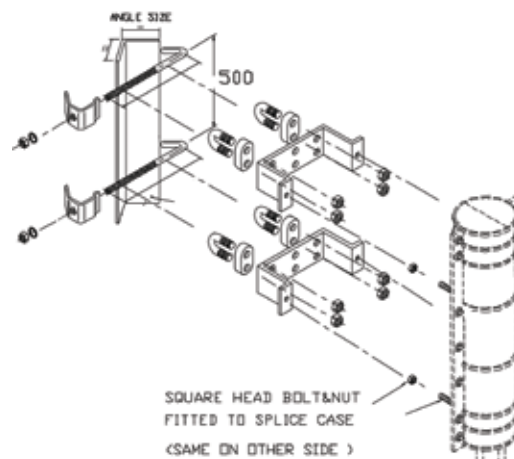


OFSCM Tower Mounting Bracket

Features:

- Suitable for all angle type tower construction
- 1 set includes 2 x brackets to install 1 COYOTE® Splice Case

| Part Number | Tower Angle Size (mm) |
|-------------|-----------------------|
| OFSCM-05-01 | 45 – 100 |
| OFSCM-05-02 | 110 – 150 |
| OFSCM-05-03 | 160 – 200 |
| OFSCM-05-04 | 210 - 250 |



COYOTE® Splice Case Mounting Hardware



BL

Band Lock

The PLP® Band Strap System uses the unique Band Lock System to attach fittings safely and securely to steel or concrete poles. Supplied as one unit, it does not require any special tools. Quick and easy installation accepts 12, 16 or 19 mm stainless steel strapping.



| Part Number |
|-------------|
| BL-10 |



SSS

Stainless Steel Strap

| Part Number | Reel Length (m) | Strap Width (mm) |
|-------------|-----------------|------------------|
| SSS-1230 | 30 | 12 |
| SSS-1630 | 30 | 16 |
| SSS-1930 | 30 | 19 |



OFSCCM

FIBERLIGN® Cable Storage Bracket

| Part Number | Conductor Bend Radius (mm) |
|-------------|----------------------------|
| OFSCCM-01 | 530 |



SSSB

Stainless Steel Buckle

| Part Number | Suits Strap Width (mm) |
|-------------|------------------------|
| SSSB-12 | 12 |
| SSSB-16 | 16 |
| SSSB-19 | 19 |



OFSCCM

FIBERLIGN® Cable Storage Bracket Cover

| Part Number |
|-------------|
| OFSCCM-01-C |

Spiral Vibration Dampers



OFSVD

Spiral Vibration Dampers For OPGW

Made from high impact, UV resistant, polyvinyl chloride (PVC), they are non-corrosive and do not abrade the OPGW or require engineering calculations for positioning. Vibration dampers are designed to reduce cable vibration at tangent supports and dead-end positions. The degree of protection needed on a specific line depends upon a number of factors such as line design, temperature, tension, exposure to the wind flow and vibration history on similar constructions in the same area.

| Part Number | Cable Diameter Range (mm) | Standard Pack Quantity | Colour Code |
|-------------|---------------------------|------------------------|-------------|
| OFSVD-0102 | 4.42 - 6.34 | 60 | Red |
| OFSVD-0103 | 6.35 - 8.29 | 60 | Blue |
| OFSVD-0104 | 8.30 - 11.74 | 60 | Black |
| OFSVD-0105 | 11.75 - 14.30 | 60 | Yellow |
| OFSVD-0106 | 14.31 - 19.30 | 25 | Green |

Spiral Vibration Damper Placement Guide

| Span Length (m) | Standard SVD Quantities |
|-----------------|-------------------------|
| 0 - 244 | 2 |
| 245 - 488 | 4 |
| 489 - 732 | 6 |
| 733 - 976 | 8 |
| 977 - 1220 | 10 |

- SVDs may be subset together in sets of up to 3 apiece; do not place more than 3 SVD's together in a subset as this can cause them to bind and reduce their overall effectiveness.
- SVDs have the advantage of being placement independent and may be placed at either end of the span, or on both ends if so desired. However, please note that SVDs are designed to be placed directly on to the conductor or shield wire and not on to rods or attachment hardware. A general recommendation, place SVDs on the bare conductor or shield wire approximately one hand's width away from suspension rods, dead-end rods, ties, etc.
- Please consult PLP for recommendations when;
 - * Flat open Terrain, river or gully crossings
 - * Tensions are greater than 20% UTS
 - * Aerial warning spheres are installed

VORTX™ Vibration Damper



Aeolian Vibration is a high frequency low amplitude motion caused by smooth laminar winds passing across the line. When conductors or cables are exposed to this wind a phenomenon known as eddy shedding occurs. Eddy or Vortex shedding creates an alternating pressure imbalance inducing the conductor to move up and down at right angles to the direction of air flow. These vibrations take the form of discrete standing waves that can cause support hardware breakdown, conductor fatigue, abrasion and eventually conductor failure.

The VORTX™ Damper exceeds the two response performance with a multi-response design that effectively reduces vibration over a wider range of imposing frequencies. This is accomplished by a design that has unequal messenger strand lengths enhanced in most cases with unequal weights. The weight sizes and messenger strand lengths are matched to specific conductor/cable impedance and line operating conditions that achieve optimum performance.

Features:

- Contoured Clamp - Aluminium alloy extrusions offer a more “precision” fit to evenly capture the conductor. As a result, tightening the bolt brings the clamp components together with evenly distributed pressure along the conductor surface.
- Clamp Profile - The clamp profile is configured to hang from the conductor or cable during installation in accordance with IEC standards. Hands are free to wrench tighten and reach proper torque.
- Messenger Strand - Galvanised steel messenger strand absorbs the vibration energy efficiently with optimum manufacturing techniques.
- Weight - Galvanised modular iron weights hug the sides of the messenger strand, not enclosing it. The possibility of corrosion is reduced.
- Weight Attachment: - PLP offers a collet type or crimped attachment to secure the weights to the messenger. Both meet pull-off strength requirements in accordance with IEC and AS1154.1 standards without changing properties of the adjoining messenger.

PLP uses a proprietary computer program to make product recommendations for maximising damper performance. The program input considers many variables specific to individual lines, their designs, construction, and local operating conditions. The output recommendations include; specific model VORTX™ Damper, quantity and their placement location on the span.

VORTX™ Stockbridge Damper

VSD - Selection Chart

For AAC, AAAC, ACSR and OPGW



Step 1: Choose conductor diameter from range below

Step 2: Choose clamp size from range below i.e. total diameter including armor rods if applicable

Step 3: Choose corresponding part number

| Conductor Selection | | Clamp Range | | Part No. |
|---------------------|----------|-------------|----------|-----------|
| Min (mm) | Max (mm) | Min (mm) | Max (mm) | |
| 9.7 | 11.9 | 9.7 | 12.3 | VSD-1012 |
| | | 15.5 | 20 | VSD-1020* |
| 12 | 18.2 | 12.3 | 15.5 | VSD-2016 |
| | | 15.5 | 20 | VSD-2020 |
| | | 20 | 25 | VSD-2025* |
| | | 25 | 32 | VSD-2032* |
| 18.3 | 21.7 | 15.5 | 20 | VSD-2520 |
| | | 20 | 25 | VSD-2525 |
| | | 25 | 32 | VSD-2532* |
| 21.8 | 24.9 | 20 | 25 | VSD-3525 |
| | | 25 | 32 | VSD-3532* |
| | | 32 | 40.1 | VSD-3540* |
| | | 40.1 | 50 | VSD-3550* |
| 25 | 33.9 | 25 | 32 | VSD-4032 |
| | | 32 | 40.1 | VSD-4040 |
| | | 40.1 | 50 | VSD-4050* |
| | | 50 | 61 | VSD-4061* |
| 32.1 | 44.7 | 32 | 40.1 | VSD-5040 |
| | | 40.1 | 50 | VSD-5050 |
| | | 50 | 61 | VSD-5061* |

* Represent dampers that in most cases are placed over Armor or Structural Rods.

Note: Final selection for weight combination at merging ranges are determined from conductor type and tension. Contact PLP technical support for further recommendations.



VDSR - VORTX™ Damper Structural Rods

For OPGW & High Temperature Conductors.

| Part Number | Conductor Diameter Range (mm) | Rod Length (mm) | Standard Pack Quantity | Colour Code |
|-------------|-------------------------------|-----------------|------------------------|-------------|
| VDSR-110 | 10.5 - 11.49 | 500 | 50 | Green |
| VDSR-120 | 11.5 - 12.49 | 500 | 50 | Purple |
| VDSR-130 | 12.5 - 13.79 | 500 | 50 | Orange |
| VDSR-140 | 13.8 - 14.89 | 500 | 50 | Blue |
| VDSR-150 | 14.9 - 15.49 | 500 | 30 | Brown |
| VDSR-160 | 15.5 - 16.49 | 500 | 30 | Yellow |
| VDSR-170 | 16.5 - 17.49 | 500 | 30 | Red |
| VDSR-180 | 17.5 - 18.49 | 500 | 30 | Yellow |
| VDSR-190 | 18.5 - 19.49 | 500 | 30 | Yellow |
| VDSR-200 | 19.5 - 20.49 | 500 | 30 | Yellow |
| VDSR-210 | 20.5 - 21.49 | 500 | 30 | Blue |
| VDSR-320 | 31.5 - 32.49 | 700 | 30 | Purple |

