

# Fiberlign® Dielectric Deadend



## General Recommendations



The Fiberlign Dielectric Deadend has been designed to securely, but gently, terminate All-dielectric Self-supporting (ADSS) aerial fibre optic cable. Two component design consisting of the appropriate size and length structural reinforcing rods and a deadend component to transfer tensile loads and distribute radial compressive forces through the plastic jacket and onto the internal strength members without damaging the fragile, internal optical fibres. A Lite deadend is also available for short low tension applications where a two component design would not be necessary.

Deadend design and performance depends upon a number of factors such as cable make and design, strength member construction, jacket type, tension load requirements, temperature and environmental operating conditions.

- **Lite Series:** only recommended for short slack spans of ADSS cable
- **Short Span Series:** recommended for ADSS spans up to 200m
- **Long Span Series:** are recommended for ADSS spans up to 600m

# Fiberlign® Dielectric Deadend



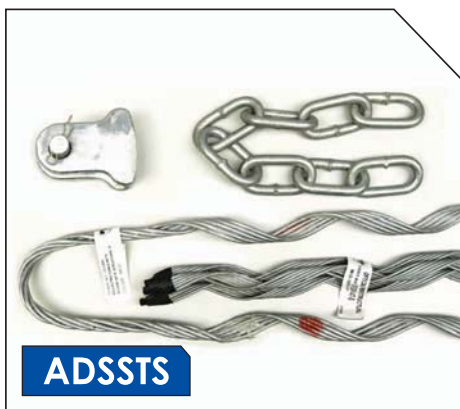
## Fiberlign Dielectric Deadend - Lite Series



Part Number	Conductor Diameter Range (mm)
ADSSTS-096-LITE	9.6 - 10.8
ADSSTS-120-LITE	12.0 - 12.9
ADSSTS-160-LITE	16.0 - 16.9
ADSSTS-192A-LITE	19.2 - 20.8

**Note:** Does not include structural reinforcing rods and are only recommended for short slack spans of ADSS cable. Subject to ADSS cable design and operating conditions

## Fiberlign Dielectric Deadend - Short Span Series



Part Number	ADSS Diameter Range (mm)
ADSSTS-075-S	7.5 - 8.3
ADSSTS-084-S	8.4 - 9.2
ADSSTS-093-S	9.3 - 10.1
ADSSTS-102-S	10.2 - 10.8
ADSSTS-109-S	10.9 - 11.5
ADSSTS-116-S	11.6 - 12.3
ADSSTS-124-SG	12.4 - 12.9
ADSSTS-130-SG	13.0 - 13.7
ADSSTS-138-SG	13.8 - 14.6
ADSSTS-147-SG	14.7 - 15.3
ADSSTS-154-SG	15.4 - 16.0
ADSSTS-161-SG	16.1 - 16.9
ADSSTS-170-SG	17.0 - 17.9
ADSSTS-180-SG	18.0 - 18.9
ADSSTS-210-SG	21.0 - 21.9
ADSSTS-220-SG	22.0 - 22.9

**Note:** Recommended for ADSS spans up to 200m. Subject to ADSS cable design and operating conditions. May be used for "Medium Span" applications, contact PLP for recommendations.

## Fiberlign Dielectric Deadend - Long Span Series

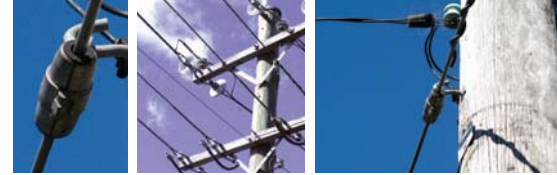


Part Number	ADSS Diameter Range (mm)
ADSSTS-116-LG	11.6 - 12.3
ADSSTS-124-LG	12.4 - 12.9
ADSSTS-130-LG	13.0 - 13.7
ADSSTS-138-LG	13.8 - 14.6
ADSSTS-147-LG	14.7 - 15.3
ADSSTS-154-LG	15.4 - 16.0
ADSSTS-161-LG	16.1 - 16.9
ADSSTS-170-LG	17.0 - 17.9
ADSSTS-180-LG	18.0 - 18.9
ADSSTS-190-LG	19.0 - 19.9
ADSSTS-200-LG	20.0 - 20.9
ADSSTS-210-LG	21.0 - 21.9
ADSSTS-220-LG	22.0 - 22.9

**Note:** Recommended for ADSS spans up to 600m. Subject to ADSS cable design and operating conditions.

# Fiberlign® Dielectric Suspension/Support

## General Recommendations



The Fiberlign Dielectric Suspension is specifically designed for installation on ADSS cables. Due to the relatively fragile nature of the plastic jackets and non-metallic strength members of ADSS, special features are incorporated into the design of the Fiberlign Dielectric Suspension. Cushion inserts gently grip the ADSS cable and provide moderate slip strength without damaging the cable jacket. Products are available for both suspension and support applications from short spans and tensions to longer spans and higher tension applications. Structural reinforcing rods are also available in single and dual combinations with clamps designed for medium and long spans. Double suspension packages are available upon request for larger than normal turning angles.

- **Short Span Series:** recommended for ADSS spans up to 200m
- **Medium Span Series:** recommended for ADSS spans up to 350m
- **Long Span Series:** recommended for ADSS spans up to 600m

# Fiberlign® Dielectric Suspension/Support



## Short Span Series



The Fiberlign Dielectric Suspension/Support clamp is a new edition to PLP's ADSS hardware range of products and has been engineered to provide a multipurpose suspension or support clamp for ADSS cable. Cushion inserts gently grip the ADSS cable and provide moderate slip strength without damaging the cable jacket. The dielectric material of the body provides a highly abrasion resistant surface that allows the body to be used as a stringing device.

"Short Span" Series are recommended for ADSS spans up to 200m. Subject to ADSS cable design and operating conditions.

### Line Angles:

Maximum recommended line angle for the Fiberlign Dielectric Suspension/Support "Short Span" Series is 20°. Greater angles can be achieved by using the Fiberlign Dielectric Suspension/Support "Medium Span" and "Long Span" Series.

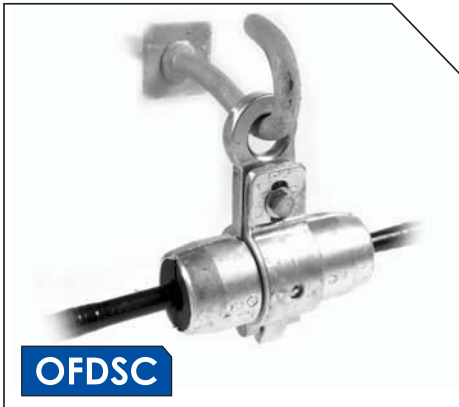
Part Number	Conductor Diameter Range (mm)	Thread Size (Support Bracket)
OFFDS2-070083	7.0 - 8.3	M16
OFFDS2-084095	8.4 - 9.5	M16
OFFDS2-096108	9.6 - 10.8	M16
OFFDS2-109121	10.9 - 12.1	M16
OFFDS2-120129	12.0 - 12.9	M16
OFFDS2-130139	13.0 - 13.9	M16
OFFDS2-140149	14.0 - 14.9	M16
OFFDS2-150159	15.0 - 15.9	M16
OFFDS2-160169	16.0 - 16.9	M16
OFFDS2-170179	17.0 - 17.9	M16
OFFDS2-180189	18.0 - 18.9	M16
OFFDS2-190199	19.0 - 19.9	M16
OFFDS2-200210	20.0 - 21.0	M16
OFFDS2-211229	21.1 - 22.9	M16
OFFDS2-230241	23.0 - 24.1	M16
OFFDS2-242254	24.2 - 25.4	M16
OFFDS2-255267	25.5 - 26.7	M16

**Note:** \* Subject to ADSS cable design and operating condition.

# Fiberlign<sup>®</sup> Dielectric Suspension



## Short Span Series



The Fiberlign Dielectric Suspension fitting is intended for use on All-dielectric Self-supporting (ADSS) optical fiber cables, typically installed on distribution power poles. Cushion inserts gently grip the ADSS cable and provide moderate slip strength without damaging the cable jacket.

“Short Span” Series are recommended for ADSS spans up to 200m. Subject to ADSS cable design and operating conditions.

### Line Angles:

Maximum recommended line angle for the Fiberlign Dielectric Suspension/Support Short Span Series is 20°. Greater angles can be achieved by using the Fiberlign Dielectric Suspension/Support Medium Span and Long Span Series.

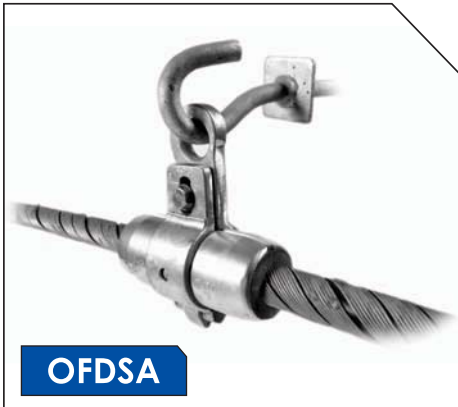
Part Number	Conductor Diameter Range (mm)
OFDSC-070083	7.0 - 8.39
OFDSC-084095	8.4 - 9.59
OFDSC-096108	9.6 - 10.89
OFDSC-109121	10.9 - 11.99
OFDSC-120125-3	12.0 - 12.99
OFDSC-130135-1	13.0 - 13.99
OFDSC-140145-3	14.0 - 14.99
OFDSC-150155-3	15.0 - 15.99
OFDSC-160165-1	16.0 - 16.99
OFDSC-170177-1	17.0 - 17.99
OFDSC-180185	18.0 - 18.99
OFDSC-190195	19.0 - 19.99
OFDSC-200210	20.0 - 21.09
OFDSC-211221	21.1 - 22.19
OFDSC-222231	22.2 - 23.19

**Note:** \* Subject to ADSS cable design and operating condition.

# Fiberlign® Dielectric Suspension



## Medium Span Series



Incorporating structural reinforcing rods along with the cushion inserts. The ADSS cable is gently gripped while still achieving moderate slip strength without damaging the cable jacket.

“Medium Span” Series are recommended for ADSS spans up to 350m. Subject to ADSS cable design and operating conditions.

### Line Angles:

Maximum recommended line angle for a single Fiberlign Dielectric Suspension/Support “Medium Span” Series is 30°. For turning angles up to 60° the double suspension is recommended, please contact PLP for support.

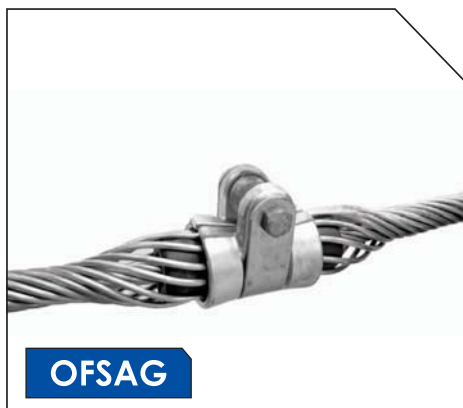
Part Number	Conductor Diameter Range (mm)
OFDSA-124129	12.4 - 12.99
OFDSA-130137	13.0 - 13.79
OFDSA-138146	13.8 - 14.69
OFDSA-147153	14.7 - 15.69
OFDSA-154160	15.4 - 16.09
OFDSA-161169	16.1 - 16.99
OFDSA-170179	17.0 - 17.99
OFDSA-180189	18.0 - 18.99
OFDSA-190199	19.0 - 19.99
OFDSA-200209	20.0 - 20.99
OFDSA-210219	21.0 - 21.99

**Note:** \* Subject to ADSS cable design and operating condition.

# Fiberlign® Dielectric Suspension



## “Long Span” Series



The unit uses the concept of a combination of structural reinforcing rods, outer rods, ‘bolted’ housing and resilient cable inserts to reduce compression clamping and bending stress on the cable and glass fibers. Effects of wind-induced cable motions such as Aeolian vibration, galloping and wind sway are also minimized.

The double layer of rods also offers critical protection against tearing of the plastic jacket during unbalanced longitudinal loading of the cable while providing substantial holding strength. This holding strength can vary according to cable brand, jacket type, operating temperature and other factors.

Long Span Series are recommended for ADSS spans up to 600m. Subject to ADSS cable design and operating conditions.

### Line Angles:

Maximum recommended line angle for a single Fiberlign Dielectric Suspension/Support “Long Span” Series is 30°. For turning angles up to 60° the double suspension is recommended, please contact PLP for support.

Part Number	Conductor Diameter Range (mm)
OFSAG-104	10.4 - 11.0
OFSAG-111	11.1 - 11.6
OFSAG-117	11.7 - 12.1
OFSAG-121	12.2 - 12.9
OFSAG-130	13.0 - 13.9
OFSAG-136	14.0 - 14.5
OFSAG-146	14.6 - 15.0
OFSAG-151	15.1 - 15.7
OFSAG-158	15.8 - 16.3
OFSAG-164	16.4 - 17.0
OFSAG-171	17.1 - 17.5
OFSAG-176	17.6 - 18.0
OFSAG-181	18.1 - 18.5
OFSAG-186	18.6 - 19.0
OFSAG-191	19.1 - 19.5
OFSAG-196	19.6 - 20.1
OFSAG-202	20.2 - 20.9
OFSAG-210	21.0 - 21.3
OFSAG-214	21.4 - 22.0
OFSAG-221	22.1 - 22.5
OFSAG-226	22.6 - 23.0

# Fiberlign® Spiral Vibration Dampers



## For ADSS



OFSVD

The Fiberlign® Spiral Vibration Damper effectively reduces levels of Aeolian vibration on ADSS cables without the need to calculate precise positioning. Each Fiberlign® Spiral Vibration Damper has a helically formed dampening section that contacts the cable to dissipate the vibration wave. A smaller gripping section gently grips the cable so that cable and fiber are not damaged or distorted and there is no optical signal loss. ADSS cables tend to vibrate with less wind energy input as compared to other cables of comparable size, mainly due to their relatively lighter weight. The degree of protection needed for a specific application depends on a number of factors such as cable type, line design, temperature, tension and exposure to wind flow.

Part Number	Conductor Diameter Range (mm)	Standard Pack Qty	Colour Code	Material
OFSVD-0103-B	6.35 - 8.29	60	blue	Black PVC
OFSVD-0104-B	8.30 - 11.74	60	black	Black PVC
OFSVD-0105-B	11.75 - 14.30	60	yellow	Black PVC
OFSVD-0106-B	14.31 - 19.30	40	green	Black PVC
OFSVD-0108	19.58 - 22.25	25	-	Grey PVC
OFSVD-0109	22.25 - 25.5	25	-	Grey PVC

### SPIRAL VIBRATION DAMPER PLACEMENT GUIDE

Span Length (m)	Standard SVD Quantities
<50	0
50-150	2
150-350	4
350-550	6
550 - 700	8
700 - 850	10
850 - 1000	12
1000 - 1150	14

- SVDs may be subset together in sets of up to 3 apiece; do not place more than 3 SVDs 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



# Fiberlign® Downlead Cushion

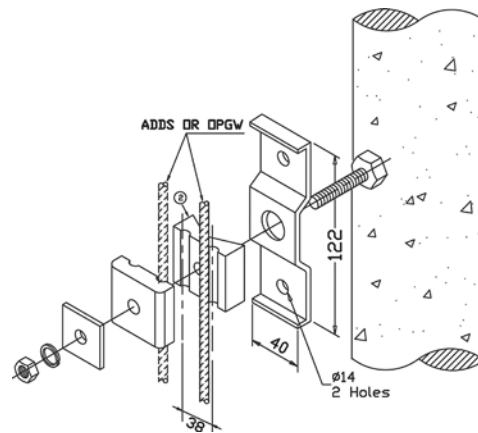
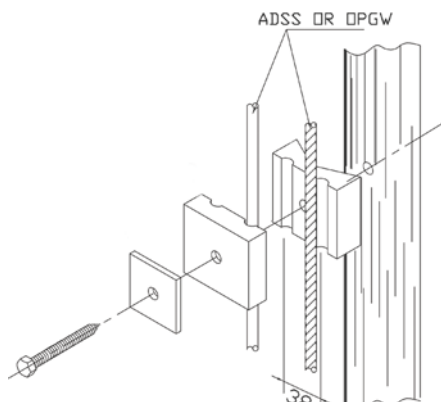


## For Concrete/Steel and Wood Poles

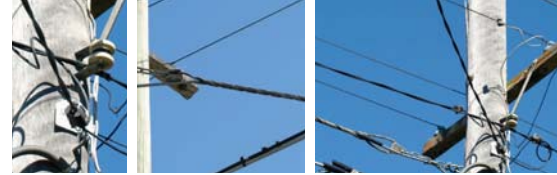


The Fiberlign® Downlead Cushion will accommodate one or two OPGW or ADSS conductors. The base of the clamp is of diecast aluminium, whereas the top is a polymeric material. The base ensures electrical bonding of the OPGW/ADSS and the top minimises compressive forces which could be transferred through to the optical elements of the cable.

Part Number Wood Poles	Part Number Concrete Poles	Colour Code
OFDLC-8003041	OFDLC-8003041A	9.5 - 11.8
OFDLC-8003042	OFDLC-8003042A	11.9 - 14.3
OFDLC-8003043	OFDLC-8003043A	14.4 - 16.6
OFDLC-8003044	OFDLC-8003044A	16.7 - 19.1
OFDLC-8003052	OFDLC-8003052A	19.2 - 21.5
OFDLC-8003256	OFDLC-8003256A	21.6 - 24.1
OFDLC-8003257	OFDLC-8003257A	24.2 - 26.6
OFDLC-8003379	OFDLC-8003379A	26.7 - 30.2



# Fiberlign® Cable Abrasion Protector



For ADSS



**PTG**

The Fiberlign® Cable abrasion protector is intended to protect the ADSS cable jacket from abrasion from structures, trees or other cables. It is made from black, low density polyethylene for low cost and superior abrasion resistance.

The tube may be cut in the field to accommodate specific length needs.

Part Number	Diameter Range (mm)	Protector ID (mm)	Protector Length (mm)
PTG-0201	6.04-12.7	12.7	1800
PTG-0203	12.8-25.4	25.4	1800
PTG-0203-0900	12.8 - 25.4	25.4	900
PTG-0205	25.6-38.1	38.1	1800

## Fiberlign ADSS Cable Storage Bracket



**OFSCCM**

The Fiberlign Cable Storage Bracket is designed to store excess ADSS or underground fibre optic cable. Excess cable can be utilised for future loop joints or T-offs. Two size available to cater for allowable minimum bend radius of fibre optic cable.

- Standard: Galvanised steel finish
- For Plastic coating finish, contact PLP

Part Number	Minimum Bend Radius (mm)
OFSCCM-02-250	250
OFSCCM-02-400	400