

# **BIRD-FLIGHT<sup>™</sup> DIVERTER**

The **BIRD-FLIGHT Diverter (BFD)** is designed to make overhead lines and guyed structures visible to birds and provides an economical means of reducing the hazard to both lines and birds. For low- and medium-voltage construction, the BFD is installed directly to the phase conductors (bare or jacketed). For high voltages, it is typically used on the shield wire and/or OPGW cable.

The **Plastic BFD** is manufactured from rigid, high-impact PVC possessing excellent chemical resistance and tensile strength properties. The BFD will retain good physical characteristics over a range of temperatures. For most OHSW and OPGW applications, the BFD can be installed robotically.

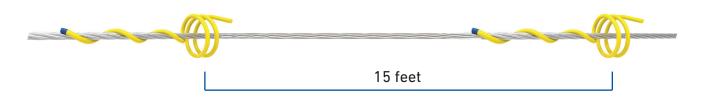
The **Aluminum BFD** is manufactured from a high strength, corrosion-resistant aluminum alloy material. It is designed for use on conductors operated at elevated temperatures (up to 250°C).

#### FEATURES AND BENEFITS

- Lightweight, economical, and easily applied by hand or hot stick
- Positive grip prevents product from moving along the span
- Long service life without deterioration of material properties
- Minimal wind resistance
- Manufactured from gray or yellow high-impact PVC with UV protection or aluminum alloy for high temperature requirements (contact PLP for other color options)
- For voltages up to 230 kV. Contact PLP for 345 kV applications.
- Meets UL 94 V-0 flammability requirements
- Robotically installed versions available for the plastic BFD

### **SPACING**

#### Horizontal Line Layout



BIRD-FLIGHT<sup>™</sup> Diverter

For optimal results, spacing distances are generally recommended at 15-foot intervals, but is dependent upon local conditions. Since wind resistance is very limited, a sufficient number of BIRD-FLIGHT Diverters can be used to ensure adequate visibility without creating stresses on the line. When marking multiple cables in a span, overall visibility is improved by staggering the placement between cables.

# Overall Length Coil Diameter Coil Diameter Coil Diameter Color Code Color Code Overall Length Aluminum

#### **BIRD-FLIGHT** Diverter

Characteristic	Description				
	Plastic (PVC)	Aluminum			
Length	Distance product covers the conductor				
Color Code	Identifies the conductor diameter ranges for colors corresponding to tabular information on catalog pages				
Coil Diameter	Internal diameter of diverter coil	Approximately 4 inches			
Application Voltage	Gray and Yellow; 230 kV and below Semi-Conductive 345 kV	230 kV and below			
Thermal Rating	125°C Continuous	250°C Continuous			

# SPECIFICATIONS



## **BIRD-FLIGHT DIVERTER ROBOTIC INSTALLATIONS**

#### LineFly<sup>™</sup> Robot

Offered as a service in partnership with FulcrumAir, installations of PLP's BIRD-FIGHT Diverters utilizing the revolutionary LineFly<sup>™</sup> robot provide utility asset owners with dramatic improvements in workplace safety and project efficiency while also reducing environmental disruptions. Using proprietary systems jointly developed by FulcrumAir and PLP, the robotic system quickly delivers precision installations of PLP's BIRD-FLIGHT Diverters, positioning them within inches of any predetermined distance.

#### Improved Workplace Safety

- Reduces lineworker exposure to safety hazards
- Eliminates the need for helicopter installations

#### **Enhanced Project Efficiency**

- · More cost-effective than traditional installation methods
- Multiple robots can be used simultaneously for rapid construction completion
- · Spans covered in a matter of minutes

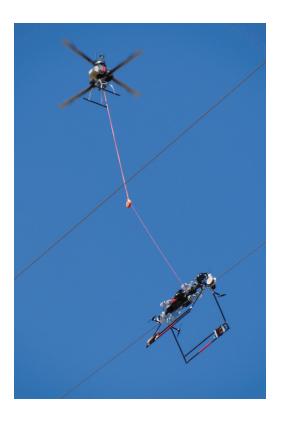
#### **Precision Product Installations**

• Installs BIRD-FLIGHT Diverters at precise locations, ensuring optimal visual alert for avian species

#### **Reduced Environmental Disruptions**

• Battery-powered propulsion drones provide a significantly quieter and more environmentally friendly method of installing diverters compared to using helicopters or bucket trucks







## **ORDERING INFORMATION**

Select the appropriate BIRD-FLIGHT Diverter size.

- · For use on bare and jacketed conductors, strand, and fiber optic cables
- · Contact a PLP representative for more information regarding which product to select for a specific application.

#### **BIRD-FLIGHT Diverter – PVC**

Catalog Number		Conductor Diameter Range		Overall Length	Diverter Coil		
	GRAY	Minimum	Maximum		Outer Diameter	Color Code	
YELLOW		in (mm)					
BFDMS3331	BFDMS3346	0.175 (4.4)	0.249 (6.3)	8.00 (203)	2.25 (57)	Black	
BFDMS3155	BFDMS2921	0.250 (6.4)	0.349 (8.9)	8.50 (216)	2.50 (64)	Blue	
BFDMS13152R	BFDMS13153R	0.312 (7.9)	0.349 (8.9)	10 (254)	4.25 (108)	Blue	
BFDMS3164	BFDMS3355	0.350 (8.9)	0.350 (8.9) 0.449 (11.4)	0 ( ( 0 (11 ( )	9.5 (241)	2.75 (70)	Brown
BFDMS11135	BFDMS11060			12.37 (314)	4.25 (108)	Brown	
BFDMS11135R	BFDMS11060R	0.350 (8.9)	0.449 (11.4)	11.5 (292)	4.25 (108)	Brown	
BFDMS3341	BFDMS3366	0.450 (11.4)	0.599 (15.2)	14.5 (368)	4.25 (108)	Green	
BFDMS3341R	BFDMS3366R	0.450 (11.4)	0.599 (15.2)	13.5 (343)	4.25 (108)	Green	
BFDMS3344	BFDMS3371	0.600 (15.2)	0.770 (19.6)	17.00 (432)	4.25 (108)	Purple	
BFDMS3345	BFDMS3376	0.771 (19.6)	0.858 (21.8)	15.00 (381)	4.25 (108)	Red	
BFDMS3405	BFDMS11699	0.859 (21.8)	0.970 (24.6)	16.50 (419)	4.50 (114)	Orange	
BFDMS11111	BFDMS12290	0.971 (24.7)	1.121 (28.5)	15.50 (394)	4.25 (108)	Pink	
BFDMS11430		1.222 (31)	1.306 (33.2)	16.25 (412.8)	4.38 (111.3)	Gray	
BFDMS11110		1.307 (33.2)	1.530 (38.7)	17.00 (431.8)	4.70 (119.3)	Black	
BFDMS12351		1.531 (38.9)	1.786 (45.4)	20.00 (508)	4.88 (124)	White	
BFDMS11566		1.787 (45.4)	2.100 (53.3)	23.00 (584.2)	5.25 (133.4)	Purple	
BFDMS12603		2.101 (53.4)	2.500 (63.5)	26.00 (660.4)	5.25 (133.4)	Orange	

NOTE: Catalog Numbers ending with "R" are for Robotic Installations. Please see page 22 for additional details on LineFly Robotic Installation.

#### High-Temperature BIRD-FLIGHT Diverter

Catalog Mate		Conductor Di	ameter Range	Overall Length	Diverter Coil Outer Diameter	Color Code
	Material	Minimum	Maximum			
		in (mm)				
BFDMS11543	Aluminum	0.800 (20.3)	0.850 (21.6)	26.00 (660)		Pink
BFDMS12679		1.100 (28.0)	1.150 (29.2)	37.00 (939)	( 00 (101)	Purple
BFDMS12645		1.300 (33.0)	1.350 (34.3)	43.00 (1092)	4.00 (101)	Red
BFDMS12687		1.565 (39.8)	1.635 (41.5)	54.00 (1371)	]	Black

NOTE: High-Temperature BIRD-FLIGHT Diverters are NOT LineFly Robot installable. Consult PLP for BIRD-FLIGHT Diverters for 345kV Phase Conductor application.

## **CONTACT A PLP REPRESENTATIVE**

#### **UNITED STATES**



#### **INTERNATIONAL**

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