



## **PREFORMED** LINE PRODUCTS

### **Section 8 – Transmission: Wildlife Protection**

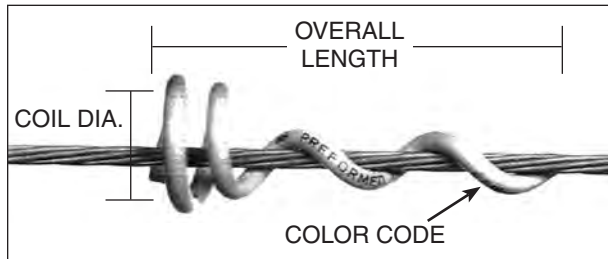
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# BIRD-FLIGHT™ Diverter

## NOMENCLATURE

### PLASTIC BIRD FLIGHT DIVERTER



**Length:** Distance product covers the conductor.

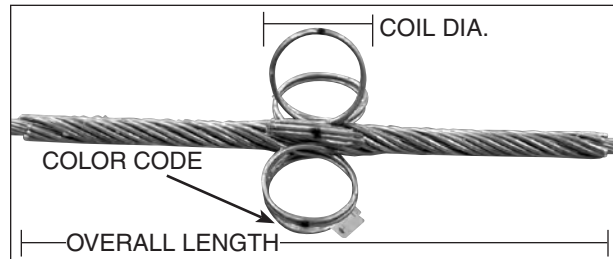
**Color Code:** Identifies conductor range, corresponding to tabular information on the following page.

**Color:** Yellow or Gray

**Material:** Outdoor grade PVC

**Coil Diameter:** Internal diameter of diverter coil

### ALUMINUM BIRD FLIGHT DIVERTER



**Length:** Distance product covers the conductor.

**Color Code:** Identifies conductor range, corresponding to tabular information on the following page.

**Color:** Silver

**Material:** Aluminum Alloy

**Coil Diameter:** Approximately 4"

## GENERAL RECOMMENDATIONS

The BIRD-FLIGHT Diverter 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 BIRD-FLIGHT Diverter is applied to the phase conductors (bare or jacketed). For high voltages, it is used on the shield wire.

The BIRD-FLIGHT Diverter is lightweight, offers little wind resistance and is easily and quickly applied by hand or by hot stick. The positive grip on the conductor ensures that the Bird-Flight Diverter remains in the applied position and cannot move along the span under aeolian vibration or other conditions.

**Visibility:** The diverter section increases the visible profile of the cable or conductor to a degree necessary to ensure safety, but avoids an undesirably bulky outline.

**Materials:** The plastic BFD is manufactured from rigid .375" and .500" high impact polyvinyl chloride (PVC) possessing excellent chemical resistance and tensile strength properties. The BIRD-FLIGHT Diverter will retain good physical characteristics within a range of extreme temperatures. Aging tests confirm the material does not deteriorate in function or appearance from the effects of severe weather conditions. Industrial fumes and salt water cannot seriously degrade the properties of rigid PVC.

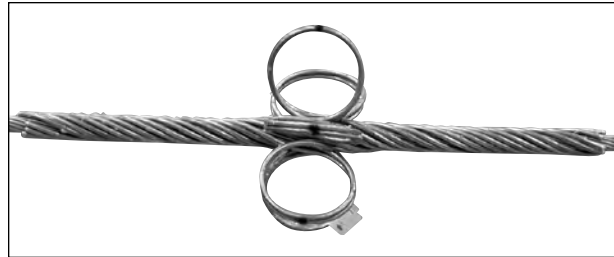
The Aluminum BFD is manufactured from a high strength, corrosive resistant aluminum alloy material. It is ideal for use on conductors operated at elevated temperatures.

## APPLICATIONS

**Ensure the correct size BIRD-FLIGHT Diverter is used.** For a detailed installation description, refer to the application instructions. Hot stick application is fast and simple with standard equipment.

**Spacing:** For optimum results, spacing distances are generally recommended at 15' intervals depending upon local conditions. Since wind resistance is very limited, sufficient BIRD-FLIGHT Diverter can be used to ensure adequate visibility without creating stresses on the line. When marking adjacent spans, overall visibility is improved by staggering the application.

# BIRD-FLIGHT™ Diverter



**For use on:  
Bare and Jacketed Conductors & Strand**

Catalog Number	Material Color	Conductor Range (Inches)		Overall Length (Inches)	Diameter of Diverter Coil (Inches)	Diameter of PVC Rod (Inches)	Color Code
		Min	Max				
BFD-MS-3331	Yellow	0.175	0.249	7.00	2.25	0.375	Black
BFD-MS-3346	Gray						
BFD-MS-3155	Yellow	0.250	0.349	8.50	2.50	0.375	Blue
BFD-MS-2921	Gray						
BFD-MS-3164	Yellow	0.350	0.449	9.50	2.75	0.375	Brown
BFD-MS-3355	Gray						
BFD-MS-10022	Black						
BFD-MS-11135	Yellow			12.375	4.50	0.500	
BFD-MS-11060	Gray						
BFD-MS-11134	Black						
BFD-MS-3341	Yellow	0.450	0.599	11.00	3.00	0.375	Green
BFD-MS-3366	Gray						
BFD-MS-10023	Black						
BFD-MS-3344	Yellow	0.600	0.770	13.00	3.75	0.500	Purple
BFD-MS-3371	Gray						
BFD-MS-3345	Yellow	0.771	0.858	15.00	4.25	0.500	Red
BFD-MS-3376	Gray						
BFD-MS-3405	Yellow	0.859	0.942	16.50	4.75	0.500	Orange
BFD-MS-11699	Gray						
BFD-MS-11111	Yellow	0.971	1.121	15.50	4.25	0.438	Pink
BFD-MS-12290	Gray						
BFD-MS-10277	Black						
BFD-MS-11430	Yellow	1.122	1.306	16.25	4.38	0.438	Gray
BFD-MS-11110	Yellow	1.307	1.530	17.00	4.70	0.438	Black
BFD-MS-12351	Yellow	1.531	1.786	20.00	4.88	0.438	White
BFD-MS-11566	Yellow	1.787	2.100	23.00	5.25	0.438	Purple
BFD-MS-12603	Yellow	2.101	2.500	26.00	5.25	0.438	Orange
BFD-MS-11543	Aluminum	0.800	0.850	26.00	4.00	0.250	Pink
BFD-MS-12679	Aluminum	1.100	1.150	37.00	4.00	0.250	Purple
BFD-MS-12645	Aluminum	1.300	1.350	43.00	4.00	0.250	Red
BFD-MS-12687	Aluminum	1.565	1.635	54.00	4.00	0.250	Black

**Explanatory Notes:**

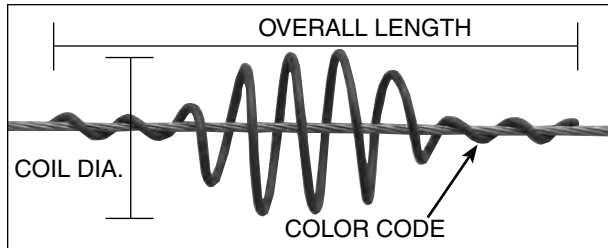
For field study results, consult Preformed Line Products.



# SWAN-FLIGHT™ Diverter

## NOMENCLATURE

### PLASTIC SWAN-FLIGHT DIVERTER



**Length:** Distance product covers the conductor.

**Color Code:** Identifies conductor range, corresponding to tabular information on the following page.

**Color:** Yellow or Gray

**Material:** Outdoor grade High Impact PVC

**Coil Diameter:** Outside diameter of diverter coil

## GENERAL RECOMMENDATIONS

The Preformed Line Products SWAN-FLIGHT Diverter is designed for use on conductor/strand to create greater visibility for avian flight paths on overhead lines and tower down guys. Offering little wind resistance, it reduces hazards to both lines and birds. For construction up to 230kV, the SWAN-FLIGHT Diverter can be applied to phase conductors (bare or jacketed). For EHV voltages, it is typically installed on the shield wire.

The SWAN-FLIGHT Diverter is lightweight, offers little wind resistance and is easily and quickly applied by hand or hot stick. The positive grip on the conductor ensures that the SWAN-FLIGHT Diverter remains in the applied location and cannot move along the span under Aeolian vibration or other conditions.

**Visibility:** The diverter section increases the visible profile of the cable or conductor to a degree necessary to ensure safety, but avoids an undesirably bulky outline.

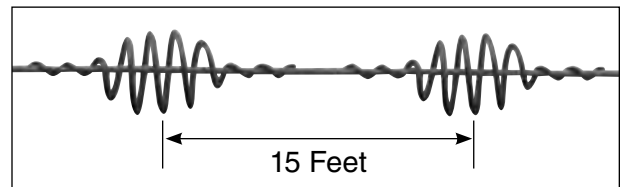
**Materials:** The SWAN-FLIGHT Diverter (SFD) is manufactured from rigid .375" and .500" high impact polyvinyl chloride (PVC) possessing excellent chemical resistance and tensile strength properties. The SFD will retain good physical characteristics within range of extreme

temperatures. Aging tests confirm the material does not deteriorate in function or appearance from the effects of severe weather conditions. Industrial fumes and salt water cannot seriously degrade the properties of rigid PVC.

## APPLICATIONS

**Ensure the correct size SWAN-FLIGHT Diverter is used.** For detailed installation description, refer to the application procedure. Hot stick application is fast and simple with standard equipment.

**Spacing:** For optimal results, spacing distances are generally recommended at 15' intervals depending upon local conditions. Since wind resistance is very limited, a sufficient quality of SWAN-FLIGHT Diverter can be used to ensure adequate visibility without creating stresses on the line. When marking adjacent spans, overall visibility is improved by the staggering application.



Catalog Number	Conductor Range (Inches)		Overall Length (Inches)	Diameter of Diverter Coil (Inches)	Diameter of PVC Rod (Inches)	Color Code
	Min	Max				
SFD-0445	0.175	0.249	20	7.0	0.375	Black
SFD-0635	0.250	0.349	23	7.0	0.375	Blue
SFD-0890	0.350	0.449	25	7.5	0.375	Brown
SFD-1140	0.450	0.599	35	8.0	0.375	Green
SFD-1520	0.600	0.770	38	8.0	0.500	Purple
SFD-1960	0.771	0.858	38	8.0	0.500	Red
SFD-2220	0.859	0.942	40	8.0	0.500	Orange
SFD-2460	0.943	1.121	40	8.0	0.500	Pink
SFD-2700	1.122	1.306	40	8.0	0.500	Gray
SFD-3035	1.307	1.530	46	8.0	0.500	Black

NOTE: Add suffix -Y to the catalog number for yellow color (i.e.: SFD-1140-Y).