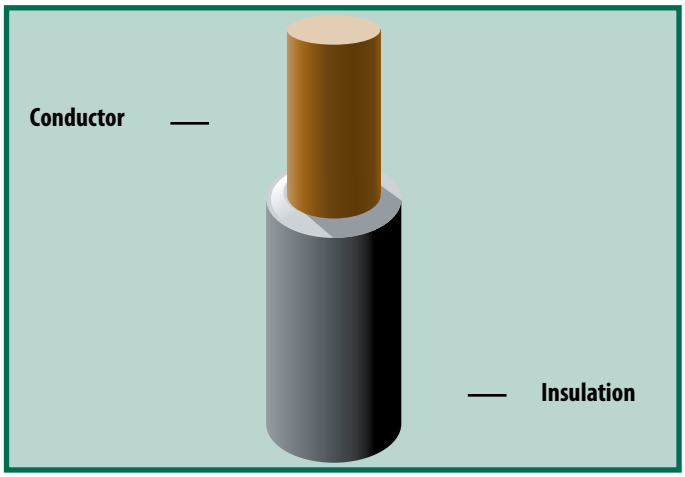
PVDF Insulated Singles

and Twisted Pairs or Triads

APPLICATION

RSCC Aerospace & Defense, a division of RSCC Wire & Cable, Inc., has earned the reputation as one of the world's leading manufacturers of PVDF insulated singles and twisted pairs or triads for wire wrap, power supplies and medical markets.

Wire wrapping continues to be used as the method of wiring back panels, power supply and test fixtures for the printed circuit board market. PVDF has good high dielectric strength and excellent mechanical properties over a broad range of temperatures, thus allowing for a thin wall insulation. Its cut through resistance is far superior to PVC and is a pure and clean polymer unlike PVC. It exhibits very low weight loss when exposed to high vacuum.



Wire wrap and medical applications
Electronic hook-up
Miniature leads

In addition it is resistant to a wide variety of chemicals, including most inorganic acids, bases, alcohols, halogenated solvents, organic acids, aliphatic and aromatic hydrocarbons.

The medical thermistor wire market has used this product for years in the fabrication of sensors for temperature measurement applications. This construction offers economical, stable, highly accurate temperature monitoring primarily for neonatal skin and incubators.

These insulated wires are available in gauge sizes 22-32, in single conductor, twisted pair or triad constructions, and may be ordered to a variety of UL or CSA listings, as well as conforming to SAE AS81822/3.

Conductor		No. of Conductors	Part Numbers		
AWG	Diameter Inch		UL 1423	UL 1422	SAE AS81822/3
30	.0100	1	U1423-30SO-X	U1422-30SO-X	81822/03-30SO-X
30	.0100	2	U1423-30SO-2-X	U1422-30SO-2-X	-
30	.0100	3	U1423-30SO-3-X	U1422-30SO-3-X	-
28	.0126	1	U1423-28SO-X	U1422-28SO-X	81822/03-28SO-X
28	.0126	2	U1423-28SO-2-X	U1422-28SO-2-X	-
28	.0126	3	U1423-28SO-3-X	U1422-28SO-3-X	-
26	.0159	1	U1423-26SO-X	U1422-26SO-X	81822/03-26SO-X
26	.0159	2	U1423-26SO-2-X	U1422-26SO-2-X	-
26	.0159	3	U1423-26SO-3-X	U1422-26SO-3-X	-
24	.0201	1	U1423-24SO-X	U1422-24SO-X	81822/03-24SO-X
24	.0201	2	U1423-24SO-2-X	U1422-24SO-2-X	-
24	.0201	3	U1423-24SO-3-X	U1422-24SO-3-X	-
22	.0253	1	U1423-22SO-X	U1422-22SO-X	81822/03-22SO-X
22	.0253	2	U1423-22SO-2-X	U1422-22SO-2-X	-
22	.0253	3	U1423-22SO-3-X	U1422-22SO-3-X	-

X = color. See page 67 for color designator.
The above part numbers represent the more popular constructions. However, other designs are available upon request.
All products are manufactured to meet RoHS compliance. For exceptions, please contact our sales department.

MARMON Aerospace & Defense™

PVDF Insulated Singles

Specifications and Standard Put-up Data

UL Style 1423	105°C, Voltage not specified, 4 mil minimum average wall, 3 mil minimum at any point, silver plated copper conductor or other conductor per UL.			
Conductor		Nom. Diameter Inch	Weight lbs/kft	Standard Put-up ft
AWG	Diameter Inch			
30	.0100	.0195	.470	20000
28	.0126	.0230	.710	15000
26	.0159	0.260	1.020	11000
24	.0201	.0300	1.520	9000
22	.0253	.0350	2.290	6000

UL Style 1422	105°C, Voltage not specified, 5 mil minimum average wall, 4 mil minimum at any point, silver plated copper conductor or other conductor per UL.			
Conductor		Nom. Diameter Inch	Weight lbs/kft	Standard Put-up ft
AWG	Diameter Inch			
30	.0100	.0210	.510	18000
28	.0126	.0240	.730	13000
26	.0159	.0270	1.050	9000
24	.0201	.0310	1.550	7000
22	.0253	.0360	2.340	5000

SAE AS81822/3	135°C, 300 volts, silver plated oxygen free conductor (type B) also available with silver plated copper (type A) or silver plated alloy (type C)			
Conductor		Nom. Diameter Inch	Weight lbs/kft	Standard Put-up ft
AWG	Diameter Inch			
30	.0100	.0195	.470	20000
28	.0126	.0265	.810	11000
26	.0159	.0295	1.140	9000
24	.0201	.0340	1.680	7000
22	.0253	.0390	2.470	5000

OTHER UL STYLES AVAILABLE: UL 1327, UL 1426, UL 1612
CSA GRADES AVAILABLE: PVF2 (150 volts), PVF2 (300 volts)
CONDUCTORS AVAILABLE: Silver plated or tin plated ETP copper; Silver plated or tin plated OFHC copper; Silver plated alloy 135

Insulation Properties

Characteristics	Value	Characteristics	Value
Flammability	V-0	Hardness Durometer Shore D	75-80
Tensile Strength @ yield 23.9°C (p.s.i.)	5200	Flexural Modulus @23.9°C (p.s.i.)	156-260 x 10^3
Elongation @ break (%)	50-250	Water Absorption (%)	.04
Dielectric Constant @ 60 cycle	8.40	Service Temperature	135°C

For specification and standard put-up data on twisted pairs and triads please visit our website.

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