# Insulated Terminals and Disconnects





# Introduction

TE insulated electrical terminal products provide reliable, repeatable, and rugged examples of terminals available. We start on the front end with terminal sizes and configurations that meet or exceed industry standards in terms of material selection, surface treatment, and electrical performance.

Here the comparison stops. What separates Raychem brand products from the rest of the industry are the materials and termination techniques used on the back end of the products, which provide unparalleled value.

## Products include:

**DuraSeal heat-shrinkable nylon crimp products**, which protect against water, condensation, salt, and corrosion. Their tough, heat-shrinkable nylon tubing resists abrasion and cut-through damage, provides strain relief, and protects against vibration damage. DuraSeal products are simple and quick to install using a crimp tool and a heat source. They accommodate a wide range of wire sizes and are color-coded for easy identification, yet are transparent for visual inspection of the finished splice.

**SolderGrip heat-shrinkable twist-on products**, which utilize a spiral copper coil that grips and compresses the conductors and allows a prefluxed solder ring to flow to the center of the splicing area, resulting in a highly reliable, repeatable joint. SolderGrip terminals use a durable polyvinylidene fluoride heat-shrinkable tubing that protects the electrical joint and provides insulation and strain relief. The SolderGrip technology is a reliable means of terminating more than two conductors time after time. SolderGrip terminals can terminate a variety of conductor types (solid and stranded) and platings. Terminations on more than eight individual conductors in a single joint have been successfully demonstrated using this product.

DuraSeal product delivers protected electrical joints on industry standard terminals and is suitable for harsh environments.

#### **Electrical Interconnect Products**





#### DURABLE

- Resistance to moisture and abrasion
- Strain relief

#### CAPABLE

- Protection from wire pull-out
- UL and CUL listed

#### EASY TO USE

• Easy installation

## DuraSeal Heat-Shrinkable Environmentally Sealed, Nylon Insulated Crimp Terminals and Disconnects

## Applications

DuraSeal products insulate and protect electrical connections from mechanical abuse, wire pull-out, and abrasion while resisting water, salt, and other contaminant's.

DuraSeal devices provide a tough, environmentally sealed wire connection. Their crimp barrel or terminal, encased in rugged, heat-shrinkable nylon tubing lined with a special hot-melt adhesive, resists damage from abrasions and cuts.

DuraSeal devices retain flexibility and impact-resistance long after similar products have become brittle.

DuraSeal devices accommodate wire gauge sizes 22 to 10. They are color-coded for easy identification of gauge sizes, yet transparent for inspection of the finished splice.

#### **Approvals and Reference Documents**

Agency approvals	UL listed component, file E87681, terminals except quick connect terminals; file E157833, quick connect terminals
Reference documents	TE specifications RB-108, Specification DuraSeal crimp terminals DuraSeal selection guide (H54153) DuraSeal installation guidelines (H54154)



## **Product Characteristics**

	Property	Unit	Requirement	Method of Test
Physical	Dimensions Tensile strength	Inches Pounds	None 8 to 40 lbs depending on AWG	See product dimensions UL486C, IEC512-8
	Property	Unit	Typical value	Method of Test
Electrical	Voltage drop Insulation resistance Dielectric withstand voltage	Millivolts Megohms Kilovolts	Less than equal length of wire 103 min. 2.5	MIL-S-81824, IEC512-2 MIL-STD-202 method 302 MIL-STD-202F method 301, IEC512-2
	Property	Unit	Requirement	Method of Test
Chemical	Diesel fuel Brake fluid Antifreeze 5% salt water Motor oil	_	Meet electrical test listed above after conditioning.	ASTM D 3032, ESA-603D
Environmental (Fluid)	Humidity Immersion Vibration Bending Thermal shock Heat aging (168h @ 85°C [185°F) Salt spray	-	Meet electrical test listed above after conditioning.	MIL-STD-202F method 106, IEC68-2-30 MIL-STD-202F condition C, IEC68-2-14 test NC MIL-STD-202F method 201, IEC68-2-6 UL486C, IEC512-8 MIL-STD-202F method 107, IEC68-2-14 test N MIL-STD-202F, IEC68-2-2 MIL-STD-202F method 101, IEC68-2-11
Operating conditions	Temperature rating Minimum shrink temperature Voltage rating	_	-55°C to +125°C [-67°F to -257°F] 180°C [356°F] 600 Volt max	None None None

### **Fork Terminals**



Part No.			Fork Termina	al Dimensions			Inculation	Wire Dim	ensions
	A Min.	Stud Size		C Nom.	L Max.	Color	Conductor (AWG)	Insulation O.D. (Max.)	O.D. (Min.)
		Metric	Imperial						
B-106-2401	3.81 [.15]	M4	8	7.87 [.31]	32.00 [1.26]	Red	22–18	3.81 [.150]	1.40 [.055]
B-106-2402	4.57 [.18]	M4	8	7.87 [.31]	35.05 [1.38]	Blue	16–14	4.45 [.175]	2.00 [.080]
B-106-2403	6.35 [.25]	M4	8	7.87 [.31]	38.10 [1.50]	Yellow	12–10	6.35 [.250]	2.79 [.110]
B-106-2502	4.57 [.18]	M5	10	9.91 [.39]	35.05 [1.38]	Blue	16–14	4.45 [.175]	2.00 [.080]
B-106-2503	6.35 [.25]	M5	10	9.91 [.39]	40.15 [1.58]	Yellow	12–10	6.35 [.250]	2.79 [.110]

#### **Electrical Interconnect Products**



## **Ring Terminals**



	Ring T	erminal Dir	nensions				Wire Dimensions			
Part No.	A Min.	St Si	ud ze	C Nom.	L Max.	Color	Conductor (AWG)	Insulation O.D. (Max.)	O.D. (Min.)	
		Metric	Imperial					(		
B-106-1401	3.81 [.15]	M4	8	7.88 [.31]	32.00 [1.26]	Red	22–18	3.81 [.150]	1.40 [.055]	
B-106-1501	3.81 [.15]	M5	10	9.91 [.39]	34.04 [1.34]	Red	22–18	3.81 [.150]	1.40 [.055]	
B-106-1601	3.81 [.15]	M6	1/4	11.94 [.47]	36.07 [1.42]	Red	22–18	3.81 [.150]	1.40 [.055]	
B-106-1801	3.81 [.15]	M8	5/16	13.97 [.55]	39.12 [1.54]	Red	22–18	3.81 [.150]	1.40 [.055]	
B-106-1991	3.81 [.15]	M10	3/8	17.78 [.70]	43.18 [1.70]	Red	22–18	3.81 [.150]	1.40 [.055]	
B-106-1402	4.57 [.18]	M4	8	7.88 [.31]	33.02 [1.30]	Blue	16–14	4.45 [.175]	2.00 [.080]	
B-106-1502	4.57 [.18]	M5	10	9.91 [.39]	35.05 [1.38]	Blue	16–14	4.45 [.175]	2.00 [.080]	
B-106-1602	4.57 [.18]	M6	1/4	11.94 [.47]	36.58 [1.44]	Blue	16–14	4.45 [.175]	2.00 [.080]	
B-106-1802	4.57 [.18]	M8	5/16	13.97 [.55]	40.13 [1.58]	Blue	16–14	4.45 [.175]	2.00 [.080]	
B-106-1992	4.57 [.18]	M10	3/8	17.78 [.70]	43.94 [1.73]	Blue	16–14	4.45 [.175]	2.00 [.080]	
B-106-1403	6.35 [.25]	M4	8	7.88 [.31]	38.10 [1.50]	Yellow	12–10	6.35 [.250]	2.79 [.110]	
B-106-1503	6.35 [.25]	M5	10	9.91 [.39]	40.13 [1.58]	Yellow	12–10	6.35 [.250]	2.79 [.110]	
B-106-1603	6.35 [.25]	M6	1/4	11.94 [.47]	41.66 [1.64]	Yellow	12–10	6.35 [.250]	2.79 [.110]	
B-106-1803	6.35 [.25]	M8	5/16	13.97 [.55]	45.21 [1.78]	Yellow	12–10	6.35 [.250]	2.79 [.110]	
B-106-1993	6.35 [.25]	M10	3/8	17.78 [.70]	46.99 [1.85]	Yellow	12–10	6.35 [.250]	2.79 [.110]	



## **Push-on Terminals**



			Push-on Termi	nal Dimensions		Inculation	Wire Din	nensions	
Part No.	Tab Size (inches)	A Min.	B Nom.	C Nom.	L Max.	Color	Conductor (AWG)	Insulation O.D. (Max.)	O.D. (Min.)
B-106-3631	.250 x .032	3.81 [.150]	6.35 [.250]	.81 [.032]	30.48 [1.200]	Red	22–18	3.81 [.150]	1.40 [.055]
B-106-3632	.250 x .032	4.57 [.180]	6.35 [.250]	.81 [.032]	32.00 [1.260]	Blue	16–14	4.45 [.175]	2.00 [.080]
B-106-3633	.250 x .032	6.35 [.250]	6.35 [.250]	.81 [.032]	33.02 [1.300]	Yellow	12–10	6.35 [.250]	2.79 [.110]
B-106-3281	.110 x .020	3.81 [.150]	2.79 [.110]	.51 [.020]	22.86 [.900]	Red	22–18	3.81 [.150]	1.40 [.055]
B-106-3481	.187 x .020	3.81 [.150]	4.75 [.187]	.51 [.020]	30.48 [1.200]	Red	22–18	3.81 [.150]	1.40 [.055]

#### **Tab Terminals**



			Tab Termina			Inculation	Wire Dimensions		
Part No.	Tab Size (inches)	A Min.	B Nom.	C Nom.	L Max.	Color	Conductor (AWG)	Insulation O.D. (Max.)	O.D. (Min.)
B-106-4631	.250 x .032	3.81 [.150]	6.35 [.250]	.81 [.032]	30.48 [1.20]	Red	22–18	3.81 [.150]	1.40 [.055]
B-106-4632	.250 x .032	4.57 [.180]	6.35 [.250]	.81 [.032]	32.00 [1.26]	Blue	16–14	4.45 [.175]	2.00 [.080]

#### **Electrical Interconnect Products**



#### **Pin Terminals**



	PIN	Terminal Dimen	sions					
Part No.	A Min.	B Nom.	L Max.	Color	Conductor (AWG)	Insulation O.D. (Max.)	Insulation O.D. (Min.)	
B-106-6201	3.81 [.150]	2.00 [.080]	30.99 [1.220]	Red	22–18	3.81 [.150]	1.40 [.055]	

## **Bullet Terminals**



				Bullet Term	inal Dimensions		Color	Conductor (AWG)	Wire Dimensions	
Part No.	Fig.	Туре	A Min.	B Nom.	C Min.	L Max.			Insulation O.D. (Max.)	Insulation O.D. (Min.)
B-106-7401	1	М	3.81 [.150]	3.81 [.150]	-	33.53 [1.32]	Red	22–18	3.81 [.150]	1.40 [.055]
B-106-7502	1	М	4.57 [.180]	5.08 [.200]	-	34.54 [1.36]	Blue	16–14	4.45 [.175]	2.00 [.080]
B-106-8401	2	F	3.81 [.150]	3.81 [.150]	5.59 [.220]	30.48 [1.20]	Red	22–18	3.81 [.150]	1.40 [.055]
B-106-8502	2	F	4.57 [.180]	5.08 [.200]	6.10 [.240]	32.51 [1.28]	Blue	16–14	4.45 [.175]	2.00 [.080]