

Devices Product Data Sheets

SolderSleeve splicing devices can be used to make sealed or unsealed splices. In a single step, they solder, insulate, encapsulate and strain-relieve a wide range of wire sizes.

DuraSeal heat-shrinkable nylon crimp splices are easy to use in factory or repair applications. They provide watertight sealing and superior protection against corrosion, abrasion and vibration.

DuraSeal heat-shrinkable, environmentally sealed, nylon-insulated crimp splices



- Protects splices from water, condensation, salt, and corrosion.
- Provides strain relief.
- Protects against vibration in rugged environments.
- Completely insulates and protects electrical connections.
- Has adhesive lining for protection that is more reliable than conventional splices.
- UL, CUL, and Lloyd's listed.

Automotive/truck wiring repair and maintenance.

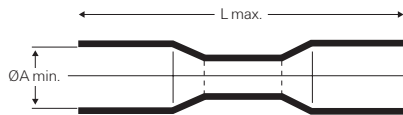
Automotive accessory installations.

OEM automotive/truck/RV wire harness fabrication.

Commercial wiring (pumps/pools/spas).

Specifications/ approvals	Series	Agency	Tyco
	D-406	UL and CUL listed 91J4, File E87681	RB-107
	Lloyd's listed, File 65 247 HH 02-93		

Product dimensions (mm/inches) Butt splices



Part number	Butt splice dimensions			Wire dimensions		
	A min.	L nom	Colour	Conductor (AWG)	Insulation OD. (max.)	Insulation OD. (min.)
D-406-0001	3.68 (.145)	31.5 (1.25)	Red	22-18	3.56 (.140)	1.40 (.055)
D-406-0002	4.57 (.180)	31.5 (1.25)	Blue	16-14	4.45 (.175)	2.03 (.080)
D-406-0003	6.35 (.250)	37.5 (1.50)	Yellow	12-10	6.22 (.245)	

Product selection process

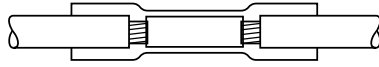
1. Determine wire size.
2. Select part number.

Wire size			
AWG	mm ²	Part number	Colour
22-18	0.5-1.0	D-406-0001	Red
16-14	1.5-2.5	D-406-0002	Blue
12-10	3.0-6.0	D-406-0003	Yellow

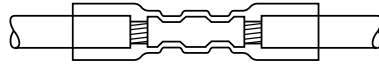
Product characteristics (typical)	Physical properties	Cut-through resistance: 31 kg (70 lb) Wire pull-out after crimping and recovery: red: 11.3 kg (25 lb); blue: 22.7 kg (50 Lb); yellow: 27.2 kg (60 Lb) Not flame-retardant No cracking after heat ageing for 168 h at 160°C
	Chemical properties	Solvent resistance: isopropyl alcohol, trichloroethylene, gasoline, battery acid, diesel fuel, motor oil, antifreeze, brake fluid, 5% salt water.
	Electrical properties	Dielectric strength: 2500 Vac
	Insulation resistance:	1000 megohms at 100 Vdc.

Installation

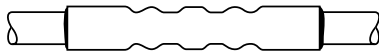
1. Select splice of appropriate size. Strip wire 7.5 mm (5/16 in). Insert into crimp barrel.



2. Crimp using Raychem AD-1522 crimp tool for preinsulated crimps.



3. Heat crimped splice with heat gun until tubing recovers and adhesive flows.



Installation requirements

For proper installation of these devices, the correct crimp tool and a heating tool with a reflector attachment must be used. The Raychem AD-1522 crimp tool and HL1802E heating tool are recommended.

Refer to Raychem installation procedure RPIP 821-00 for detailed instructions.

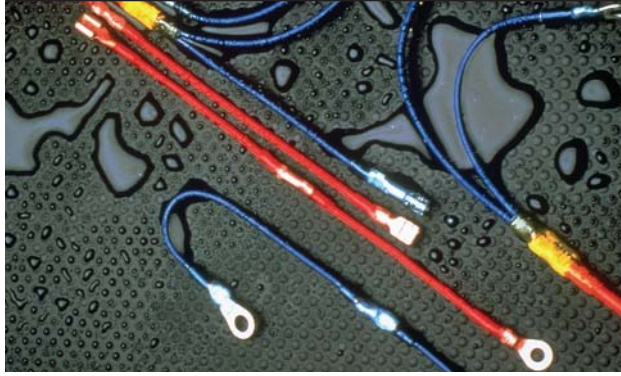
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DuraSeal heat-shrinkable environmentally sealed, nylon insulated crimp terminals and disconnects



- Resistance to moisture and abrasion.
- Strain relief.
- Protection from wire pull-out.
- Easy installation.

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

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.

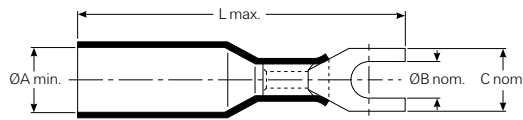
DuraSeal devices accommodate wire gauge sizes 22 to 10. They are colour-coded for easy identification of gauge sizes, yet transparent for inspection of the finished splice.

Approvals and reference documents	Agency approvals	UL listed component, file E87681, butt splices and terminals except quick connect terminals; file E157833, quick connect terminals
	Reference documents	Raychem specifications RB-107, Specification DuraSeal crimp splices Raychem specifications RB-108, Specification DuraSeal crimp terminals DuraSeal selection guide (H54153) DuraSeal installation guidelines (H54154)

Product characteristics

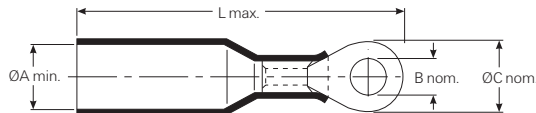
	Property	Unit	Requirement	Method of test
Physical	Dimensions	Inches	None	See product dimensions
	Tensile strength	Pounds	8 to 40 lbs depending on AWG	UL486C, IEC512-8
Electrical	Voltage drop	Millivolts	Less than equal length of wire	MIL-S-81824, IEC512-2
	Insulation resistance	Megohms	10 ³ min.	MIL-STD-202 method 302
	Dielectric withstand voltage	Kilovolts	2.5	MIL-STD-202F method 301, IEC512-2
Chemical	Diesel fuel		Meet electrical test	ASTM D 3032, ESA-603D
	Brake fluid		listed above after conditioning.	
	Antifreeze			
	5% salt water			
	Motor oil			
Environmental (Fluid resistance)	Humidity		Meet electrical test	MIL-STD-202F method 106, IEC68-2-30
	Immersion		listed above after conditioning.	MIL-STD-202F condition C, IEC68-2-14 test NC
	Vibration			MIL-STD-202F method 201, IEC68-2-6
	Bending			UL486C, IEC512-8
	Thermal shock			MIL-STD-202F method 107, IEC68-2-14 test N
	Heat ageing (168° @ 85°C)			MIL-STD-202F, IEC68-2-2
	Salt spray			MIL-STD-202F method 101, IEC68-2-11
Operating conditions	Temperature rating		-55°C to +125°C	None
	Minimum shrink temperature		180°C	None
	Voltage rating		600 Volt max	None

Product dimensions (mm/inches) Fork terminals



Part number	Fork terminal dimensions				Colour	Wire dimensions		
	A min.	B-stud recommended size	C nom.	L max.		Conductor (AWG)	Insulation O.D. (max.)	Insulation O.D. (min.)
B-106-2401	4.0 (.160)	4.0 (.169)	8.0 (.31)	32.0 (1.26)	Red	22-18	4.0 (.160)	1.4 (.055)
B-106-2402	4.6 (.180)	4.0 (.169)	8.0 (.31)	35.0 (1.38)	Blue	16-14	4.6 (.175)	2.0 (.080)
B-106-2502	4.6 (.180)	5.0 (.207)	10.0 (.39)	35.0 (1.38)	Blue	16-14	4.6 (.175)	2.0 (.080)
B-106-2403	6.5 (.250)	4.0 (.169)	8.0 (.31)	38.0 (1.50)	Yellow	12-10	6.5 (.250)	2.8 (.110)
B-106-2503	6.5 (.250)	5.0 (.207)	10.0 (.39)	40.0 (1.58)	Yellow	12-10	6.5 (.250)	2.8 (.110)

Product dimensions (mm/inches) Ring terminals



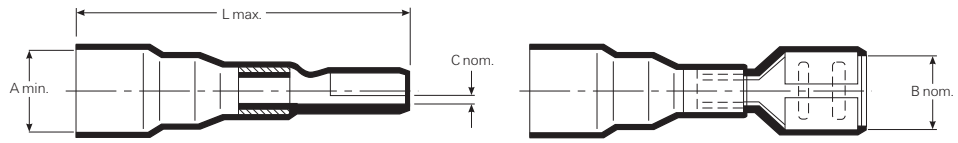
Part number	Ring terminal dimensions				Colour	Wire dimensions		
	A min.	B-stud recommended size	C nom.	L max.		Conductor (AWG)	Insulation O.D. (max.)	Insulation O.D. (min.)
B-106-1401	4.0 (.160)	4.0 (0.170)	8.0 (.310)	32.0 (1.26)	Red	22-18	4.0 (.160)	1.4 (.055)
B-106-1501	4.0 (.160)	5.0 (0.210)	10.0 (.39)	34.0 (1.34)	Red	22-18	4.0 (.160)	1.4 (.055)
B-106-1601	4.0 (.160)	6.0 (0.255)	10.0 (.47)	36.0 (1.42)	Red	22-18	4.0 (.160)	1.4 (.055)
B-106-1801	4.0 (.160)	8.0 (0.330)	14.0 (.55)	39.0 (1.54)	Red	22-18	4.0 (.160)	1.4 (.055)
B-106-1991	4.0 (.160)	10.0 (0.415)	18.0 (.70)	43.0 (1.70)	Red	22-18	4.0 (.160)	1.4 (.055)
B-106-1402	4.6 (.180)	4.0 (0.170)	8.0 (.31)	33.0 (1.30)	Blue	16-14	4.6 (.175)	2.0 (.080)
B-106-1502	4.6 (.180)	5.0 (0.210)	10.0 (.39)	35.0 (1.38)	Blue	16-14	4.6 (.175)	2.0 (.080)
B-106-1602	4.6 (.180)	6.0 (0.255)	11.0 (.47)	36.0 (1.44)	Blue	16-14	4.6 (.175)	2.0 (.080)
B-106-1802	4.6 (.180)	8.0 (0.330)	14.0 (.55)	40.0 (1.58)	Blue	16-14	4.6 (.175)	2.0 (.080)
B-106-1992	4.6 (.180)	10.0 (0.415)	18.0 (.70)	44.0 (1.73)	Blue	16-14	4.6 (.175)	2.0 (.080)
B-106-1403	6.5 (.250)	4.0 (0.170)	8.0 (.31)	38.0 (1.50)	Yellow	12-10	6.5 (.250)	2.8 (.110)
B-106-1503	6.5 (.250)	5.0 (0.210)	10.0 (.39)	40.0 (1.58)	Yellow	12-10	6.5 (.250)	2.8 (.110)
B-106-1603	6.5 (.250)	6.0 (0.255)	11.0 (.47)	41.5 (1.64)	Yellow	12-10	6.5 (.250)	2.8 (.110)
B-106-1803	6.5 (.250)	8.0 (0.330)	14.0 (.55)	45.0 (1.78)	Yellow	12-10	6.5 (.250)	2.8 (.110)
B-106-1993	6.5 (.250)	10.0 (0.415)	18.0 (.70)	47.0 (1.85)	Yellow	12-10	6.5 (.250)	2.8 (.110)

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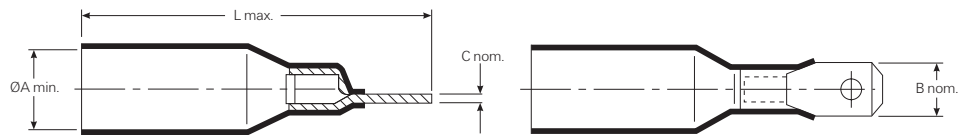
DuraSeal heat-shrinkable environmentally sealed, nylon insulated crimp terminals and disconnects

Product dimensions (mm/inches) Push-on terminals



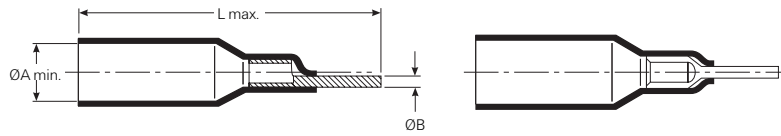
Part number	Push-on terminal dimensions				Colour	Wire dimensions		
	A min.	B nom.	C nom.	L max.		Conductor (AWG)	Insulation O.D. (max.)	Insulation O.D. (min.)
B-106-3631	4.0 (.160)	6.6 (.260)	0.8 (.032)	30.0 (1.20)	Red	22-18	4.0 (.160)	1.4 (.055)
B-106-3632	4.6 (.180)	6.6 (.260)	0.8 (.032)	32.0 (1.26)	Blue	16-14	4.6 (.175)	2.0 (.080)
B-106-3633	6.5 (.250)	6.6 (.260)	0.8 (.032)	33.0 (1.30)	Yellow	12-10	6.5 (.250)	2.8 (.110)
B-106-3281	4.0 (.160)	2.8 (.110)	0.5 (.020)	22.5 (.90)	Red	22-18	4.0 (.160)	1.4 (.055)

Tab terminals



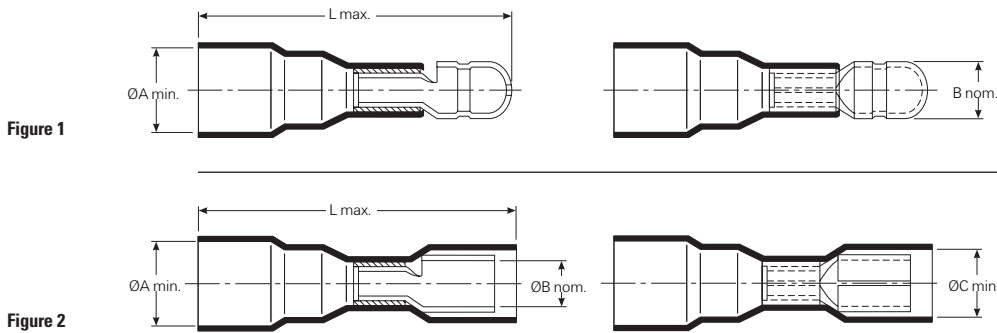
Part number	Tab terminal dimensions				Colour	Wire dimensions		
	A min.	B nom.	C nom.	L max.		Conductor (AWG)	Insulation O.D. (max.)	Insulation O.D. (min.)
B-106-4631	4.0 (.160)	6.35 (.250)	0.8 (.032)	32.0 (1.26)	Red	22-18	4.0 (.160)	1.4 (.055)
B-106-4632	4.6 (.180)	6.35 (.250)	0.8 (.032)	33.0 (1.30)	Blue	16-14	4.60 (.175)	2.0 (.080)

Product dimensions (mm/inches) Pin terminals



Part number	Pin terminal dimensions			Colour	Wire dimensions		
	A min.	B nom.	L max.		Conductor (AWG)	Insulation O.D. (max.)	Insulation O.D. (min.)
B-106-6201	4.0 (.160)	2.0 (080)	30.5 (1.22)	Red	22-18	4.0 (.160)	1.4 (.055)

Bullet terminals



Part number	Figure	Type	Bullet terminal dimensions				Colour	Wire dimensions		
			A min.	B nom.	C min.	L max.		Conductor (AWG)	Insulation O.D. (max.)	Insulation O.D. (min.)
B-106-7401	1	M	4.0 (.160)	4.0 (.160)	-	33.0 (1.32)	Red	22-18	4.0 (.160)	1.4 (.055)
B-106-7502	1	M	4.6 (.180)	5.0 (.200)	-	34.0 (1.34)	Blue	16-14	4.6 (.175)	2.0 (.080)
B-106-8401	2	F	4.0 (.160)	4.0 (.160)	5.5 (.220)	30.0 (1.28)	Red	22-18	4.0 (.160)	1.4 (.055)
B-106-8502	2	F	4.6 (.180)	5.0 (.200)	6.0 (.240)	32.0 (1.26)	Blue	16-14	4.6 (.175)	2.0 (.080)

Product dimensions (inches)

Standard packaging

Product supplied in bulk, 500 or 1000 pieces per box, depending on size.

For other packaging options consult factory.

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