

Raychem

**SolderSleeve[®]
One-Step**

Wire and Cable Terminators

Selection Guide



Splicing wire to wire



Terminating wire to component terminal



Terminating coaxial cables



Terminating ground wire to cable shield



Preinstalled wire lead

Introduction

Proven in three decades of use, SolderSleeve one-step wire and cable terminators provide electrical termination in a wide range of interconnect applications—for terminating wire to component terminals, for terminating ground wires to cable shields, for terminating coaxial cable, and for wire-to-wire splicing.

With one-step SolderSleeve products:

- Compatibility covers many component dielectric materials and wire installations, including sensitive low-temperature materials.
- A precisely engineered, fluxed solder preform within the heat-shrinkable thermoplastic sleeve provides a completely soldered, strain-relieved, encapsulated termination.

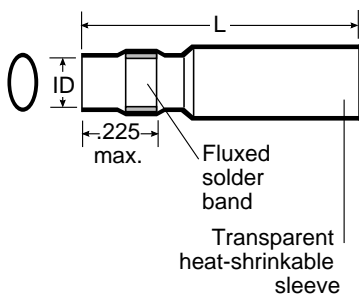
- Low-temperature wires can be terminated in applications with maximum operating temperatures up to 125°C.

One-step terminators have a one-piece design, which simplifies installation, and transparent insulation sleeves, which make inspection easy.

Sleeve style and size range available (dimensions in inches)

CWT-15XX Series*

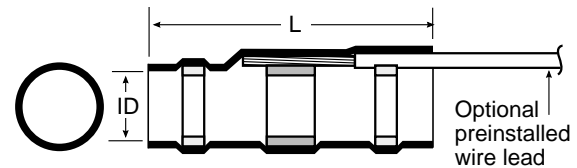
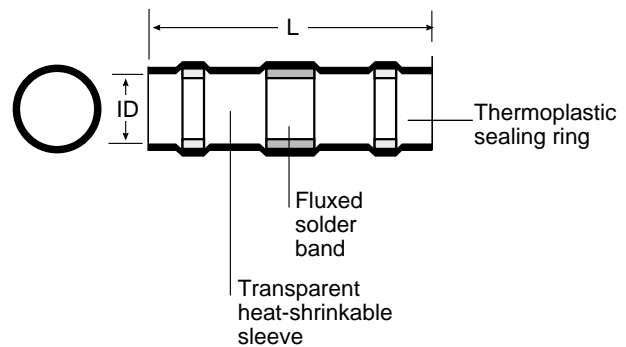
Terminating wires to component terminals (pin, post, tab)



*Optional tape carrier available.

CWT-38XX Series

Terminating ground wire to cable shield
Terminating coaxial cable
Wire to wire splicing



Part number	Min. inside diameter (ID)	Sleeve length
CWT-1501	.060	.575 ±.060
CWT-1502	.090	.575 ±.060
CWT-1503	.110	.575 ±.060
CWT-1504	.150	.575 ±.060
CWT-1505	.175	1.00 ±.060
CWT-1506	.230	1.00 ±.060

Part number	Min. inside diameter (ID)	Sleeve length
CWT-3801	.060	1.50 ±.150
CWT-3802	.080	1.50 ±.150
CWT-3803	.110	1.50 ±.150
CWT-3805	.175	1.50 ±.150
CWT-3806	.230	1.50 ±.150
CWT-3807	.275	1.50 ±.150
CWT-3809	.345	1.50 ±.150
CWT-3811	.430	1.50 ±.150
CWT-3813	.530	1.50 ±.150

Selection procedure

Select application type:

- Terminating wires to component terminals (use Table A)
- Terminating ground wires to cable shields (use Table B)
- Terminating coaxial cables (use Table D)
- Wire-to-wire splicing (use Table F)

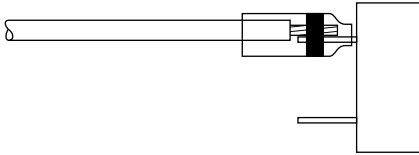
Select size:

- Wire AWG
- Cable (dimensions)
- Connection point (pin, post, or tab dimensions)

Select options:

- Preinstalled wire leads (use Tables B, C, D, E)
- Tape carrier (available with CWT-15 series only. Use Table A)

Table A: Terminating wires to component terminals (dimensions in inches)

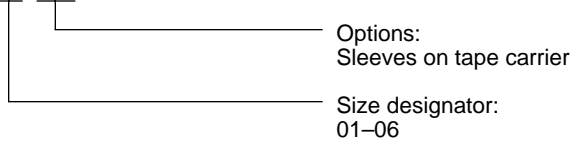


1. Determine your component connection point type (pin, post, or tab) and dimensions.
2. Determine your wire gauge.
3. Optional: Select center-to-center spacing of tape carrier. This should match center spacing of component terminals.
4. Select part number.

Connection point type and size		Tape carrier options—center-to-center spacing of sleeves					
Terminal dimensions Pin or post	Wire AWG	None	.100	.109	.125	.156	
 Pin	W = up to .025	24–22 CWT-1501	CWT-1501T1	CWT-1501T2	CWT-1501T3	CWT-1501T4	
		29 CWT-1502				CWT-1502T4	
 Pin	W = .025 to .035	24 CWT-1501	CWT-1501T1	CWT-1501T2	CWT-1501T3	CWT-1501T4	
		22 CWT-1502				CWT-1502T4	
		20 CWT-1503					
 Post	W = .035 to .045	24–22 CWT-1502					
		20–18 CWT-1503					
 Post	W = .045 to .060	24–22 CWT-1503					
		20–18 CWT-1504					
Tab							
 Tab	W = up to .060	24–18 CWT-1501	CWT-1501T1	CWT-1501T2	CWT-1501T3	CWT-1501T4	
		W = .050 to .090 24–18 CWT-1502				CWT-1502T4	
		W = .070 to .110 24–18 CWT-1503					
		W = .100 to .150 24–18 CWT-1504					
		W = .150 to .187 24–18 CWT-1505					
	W = .187 to .250 24–18 CWT-1506						

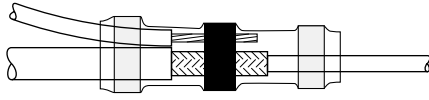
Part number description

CWT - 15 XX (ZZ)



Example:
CWT-1501 (without tape carrier)
CWT-1501T3 (with tape carrier)

Table B: Terminating ground wires to cable shields (dimensions in inches)



1. Determine your cable dimensions.
2. Optional: Select preinstalled wire lead type (use Table C)
3. Select part number.

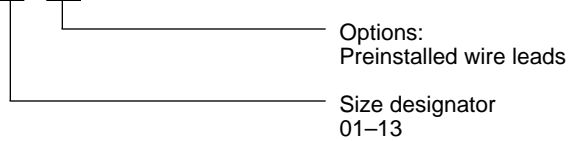
Cable dimension (jacket OD)	Preinstalled lead options (see Table C for lead description)		
	None	22 AWG stranded white	22 AWG stranded green
.030 to .060	CWT-3801		
.040 to .080	CWT-3802		
.060 to .110	CWT-3803	CWT-3803W1	CWT-3803W2
.100 to .175	CWT-3805	CWT-3805W1	CWT-3805W2
.150 to .230	CWT-3806	CWT-3806W1	CWT-3806W2
.170 to .275	CWT-3807	CWT-3807W1	CWT-3807W2
.250 to .345	CWT-3809	CWT-3809W1	CWT-3809W2
.300 to .430	CWT-3811		
.350 to .530	CWT-3813		

Table C: Preinstalled lead description

Insulation type	Conductor type	Size	Plating	Length (min.)	Color	Part number suffix
XL polyethylene	stranded	22 AWG	tin	6 inches	white	W1
XL polyethylene	stranded	22 AWG	tin	6 inches	green	W2

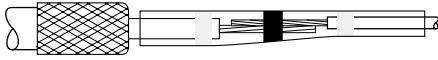
Part number description

CWT - 38 XX ()

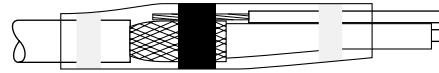


Example:
 CWT-3805 (without lead)
 CWT-3805W2 (with lead)

Table D: Terminating coaxial cables (dimensions in inches)



Center conductor soldering and insulation



Soldering the lead to the shield, insulation of the assembly

1. Determine your cable RG number or dimensions.

2. Optional: Select preinstalled wire lead type (use Table E).

3. Select part number

Note: Terminating the cable shield and center conductor requires two CWT series part numbers: one for the shield terminator and one for the center conductor terminator.

Cable RG number or dimensions		Preinstalled lead options (see Table E for lead description)		
Typical RG no.	Center conductor dielectric O.D.	Shield terminator jacket O.D.	None	With preinstalled lead*
174	Ctr. conductor		CWT-3803	CWT-3803WX
	Shield		CWT-3805	CWT-3805WX
58	Ctr. conductor		CWT-3803	CWT-3803WX
	Shield		CWT-3806	CWT-3806WX
59	Ctr. conductor		CWT-3805	CWT-3805WX
	Shield		CWT-3807	CWT-3807WX
	.030 to .090		CWT-3803	CWT-3803WX
	.080 to .110		CWT-3803	CWT-3803WX
	.110 to .130		CWT-3805	CWT-3805WX
		.050 to .110	CWT-3803	CWT-3803WX
		.100 to .175	CWT-3805	CWT-3805WX
		.125 to .235	CWT-3806	CWT-3806WX

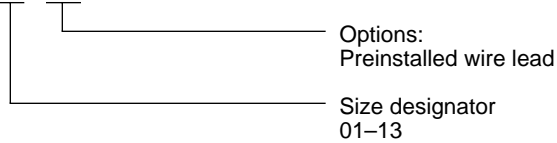
* X designates part number suffix for preinstalled wire lead type (see Table E).

Table E: Preinstalled lead description

Insulation type	Conductor type	Size	Plating	Length (min.)	Color	Part number suffix
XL polyethylene	stranded	22 AWG	tin	6 inches	white	W1
XL polyethylene	stranded	22 AWG	tin	6 inches	green	W2
	solid bus	22 AWG	solder	1 inches		W3
XL ETFE	solid	26 AWG	silver	6 inches	white	W4
XL ETFE	solid	26 AWG	silver	6 inches	blue	W5

Part number description

CWT - 38 XX ()



Example:
CWT-3805 (without lead)
CWT-3805W4 (with lead)

Table G: Circular mil area (CMA) selection

For splices containing more than two wire gauges: Use this table to calculate the circular mil area (CMA) of all the wires spliced. Select the sleeve recommended for that CMA from Table H.

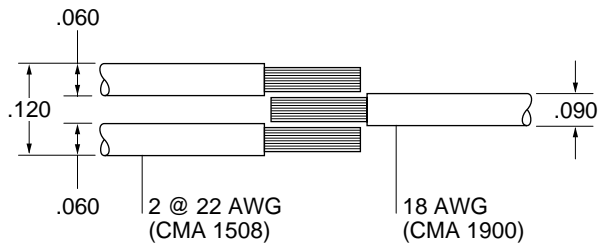
AWG	28	26	24	22	20	18	16	14	12
CMA	177	304	475	754	1216	1900	2426	3831	5874

Table H: Multiwire splice part number selection (dimensions in inches)

	Wire O.D.		CMA	
	Min.	Max.	Min.	Max.
CWT-3801	0.03	0.06	450	1450
CWT-3802	0.04	0.08	800	1900
CWT-3803	0.06	0.11	1650	3500
CWT-3805	0.08	0.175	2900	7200
CWT-3806	0.12	0.235	6100	11000
CWT-3807	0.16	0.275	10000	25000

CMA example

Multiwire splice



Total CMA = 3408

Correct part number selection based on CMA and Wire O.D. = CWT-3805

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