

## SolderSleeve Discrete Wire Terminators

## **Product Facts**

- Transparent polyvinylidene fluoride or polvolefin insulation sleeve provides encapsulation, inspectability, strain relief, and insulation
- Prefluxed solder preform offers a controlled soldering process
- One-piece design means easy installation and low installed cost
- Optional tape carrier provides convenience and ease of installation

 $(U_L)$ 

UL and CUL Recognized



### **Applications**

Used for terminating wires to component terminals, such as motor tabs, connector pins, and switch terminals.

## **Product selection process**

- 1. Determine the application operating temperature.
- 2. From the Product Options table on the next page, select the product series appropriate for the application, based on the temperature required.
- 3. Determine your component connection point type (pin, post, or tab) and dimensions.
- 4. Determine your wire gauge.

- 5. Optional: Select tape carrier center-to-center spacing (D-71X series only). This should match center spacing of component terminals.
- 6. Select part number from the appropriate table:
  - For B-155 and CWT series (applications with low-temperature wires-below 125°C [257°F]), use Table A.
  - For D-129/141/71X series (applications with wires rated higher than 125°C [257°F]), use Table B.

### Installation

For proper installation of these devices, the correct heating tool and reflector attachment must be used. Either of the following TE heating tools is recommended:

- HL1901E/HL2010E
- AA-400 Super Heater

Refer to TE installation procedure RCPS-200-12 (for D-129, D-141, D-71X) or RPIP-824-00 (for B-155 and CWT) for detailed instructions and recommended reflector attachment.

You will find ordering information for these tools see section 10.

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Dimensions are shown for reference purposes only. Specifications subject to change.

Dimensions are in millimeters unless otherwise specified. USA: +1 (800) 522-6752

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UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015

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## SolderSleeve Discrete Wire Terminators (Continued)

**Product Options** 

Product Series	Max. Operating Temperature	Min. Wire Temperature Rating		
B-155, CWT	125°C [257°F]	85°C [185°F]		
D-129, D-141, D-71X	150°C [302°F]	125°C [257°F]		
Note: Cadmium-free option (B-152 series) is available for operating temperature of 125°C [257°F].				

Consult TE for details.

## Table A. B-155 Series (125°C [257°F] rated)

Connection-point Type and Size	Terminal Dimensions	Wire AWG/mm <sup>2</sup>	Part No.
ш W	W = up to 0.63 [.025]	24 [0.24] 20 [0.61]	B-155-1501 B-155-1502
pin	W = 0.63 [.025] to 0.89 [0.035]	24 [0.24] 22 [0.38] 20 [0.61]	B-155-1501 B-155-1502 B-155-1503
н W	W = 0.89 [0.035] to 1.14 [.045]	24–22 [0.24–0.38] 20–18 [0.61–0.95]	B-155-1502 B-155-1503
post	W = 1.14 [.045] to 1.52 [.060]	24–22 [0.24–0.38] 20–18 [0.61–0.95]	B-155-1503 B-155-1504
	W = up to1.52 [.060]	24–20 [0.24–0.61]	B-155-1501
	W = 1.27 [.050] to 2.28 [.090]	24-18 [0.24–0.95]	B-155-1502
⊢ W, [] tab	W = 1.77 [.070] to 2.79 [.110]	24-18 [0.24–0.95]	B-155-1503
	W = 2.54 [.100] to 3.80 [.150]	24-18 [0.24–0.95]	B-155-1504
	W = 2.28 [.090] to 4.70 [.187]	22-16 [0.38–1.21]	B-155-1505

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## SolderSleeve Discrete Wire Terminators (Continued)

Table B. D-129/141/71X Series (up to 150°C [302°F] rated)

### Connection-point Type and Size

Towning		Wire		Tape Carrier Spacing of Sleeves (Center-to-Center)			ter)	
Terminal Dimensions		AWG	mm <sup>2</sup>	None	1.27 [0.050]	2.54 [0.100]	3.17 [0.125]	4.0 [0.156]
	W	30–26	[0.05–0.15]	D-141-30	D-713-03	—	_	—
	W = up to 0.61 [.024]	24–22	[0.24–0.38]	D-141-07	_	D-711-00	—	—
pin	W = 0.63 [.025] to 0.81 [.032]	20	[0.61]	D-141-31	—	D-711-04	D-711-07	D-711-08
ш W	W = 0.76 [.030] to 1.27 [.050]	24–20	[0.24–0.61]	D-141-56	_	_	_	
post	W = up to 1.52 [.060]	24–20	[0.24–0.61]	D-129-05	—	D-714-01	—	_
н W	W = 1.27 [.050] to 2.28 [.090]	24–20	[0.24–0.61]	D-129-03	_	_	_	D-714-00
tab	W = 2.28 [.090] to 3.55 [.140]	24–20	[0.24–0.61]	D-129-0043	_	_	_	_

#### For Fine Wire Terminations 0.15 mm<sup>2</sup> (26 AWG) and Smaller\*

Part No.*	Inside Diameter As Supplied**	Fully Recovered†	Length++
D-110-0062	1.0 [0.040]	0.6 [0.025]	16.0 [0.630]
D-110-0217	1.0 [0.040]	0.6 [0.025]	9.0 [0.360]
D-141-13	0.75 x 1.65 [0.030 X 0.065]	0.75 [0.030]	4.7 [0.185]
D-141-22	0.75 x 1.65 [0.030 X 0.065]	0.75 [0.030]	6.0 [0.240]
D-141-30	0.75 x 1.65 [0.030 X 0.065]	0.75 [0.030]	9.5 [0.375]

Note: Micro SolderSleeve terminators are used for attaching leads smaller than 26 AWG (0.15 mm<sup>2</sup>) to terminals less than 0.6 [.025] wide.

\*The D-110 series sleeves are primarily for single wire terminations and do not have a wire stop. The D-141 series will accept either one or two wires; the parts have a built-in wire stop that will locate the wire approximately 0.76 [0.03] from bottom of terminal.

\*\*Minimum. Wire insulation must be smaller than this. When using the D-141 parts for two-wire terminations, the combined wire insulation diameters must be less than 1.5 [.060].

+Maximum. The combination of conductor diameter and terminal width and the wire insulation must be greater than this.

††The terminal length should be at least 1.2 [0.05] shorter than this. The wire strip length must be adjusted so that, when terminated, the exposed conductor is covered by the sleeve.

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## SolderSleeve Discrete Wire Terminators (Continued)

# **Product Characteristics**

Material			
Insulation [D-129, D-141, D-71X]	Radiation-crosslinked, heat-shrinkable polyvinylidene fluoride		
Insulation [B-155, CWT]	Radiation-crosslinked, heat-shrinkable polyolefin		
Solder and flux [D-129, D-141, D-71X]	Solder: Sn63 Pb37	Flux: ROL1 per ANSI-J-004 [RMA flux	
Solder and flux [B-155]	Solder: Sn42Bi58	Flux: ROM1 per ANSI-J-004 [RA flux]	
Solder and flux [CWT]	Solder: Sn50 Pb32 Cd 18	Flux: ROM1 per ANSI-J-004 [RA flux]	
Typical Performance			
Voltage drop	2.0 mV		
Tensile strength	Exceeds strength of conduc	ctor	
Dielectric strength	2.0 kV		
Temperature rating [B-155, CWT]	-55°C to 125°C [-67°F to 25	57°F]	
Temperature rating [D-129, D-141, D-71X]	-55°C to 150°C [-67°F to 30	)2°F]	
Insulation resistance	1000 megohms		

# **Specifications/Approvals**

Series	Agency	TE
B-155	RoHS	RT-1404
CWT	UL and CUL E87681	D-5023
D-129, D-141	UL and CUL E87681	RT-1404