

The Cannon Microstrips provide an extremely dense and reliable interconnection solution in a minimum profile package, giving great application flexibility. Available with latches or guide pins, Microstrips are frequently found in board-to-wire applications where high reliability is a primary concern.

Three termination styles are available: solder cup, pigtail, harness, or printed circuit leads. The MicroPin Contact System assures maximum performance in a minimum package.



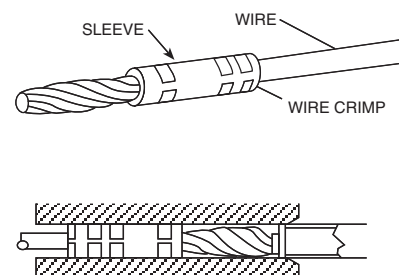
Product Features

- High Performance MicroPin Contact System
- High-density .050" contact spacing
- Pre-wired for ease of installation
- Fully potted wire terminations
- Guide pins for alignment and polarizing
- Quick-disconnect latches
- 3 Amp current rating
- Precision crimp terminations
- Solder cup, pigtail or printed circuit terminations
- Surface mount leads

MicroPin Contact System

The Cannon MicroPin Contact System offers uncompromised performance in downsized interconnects. The beryllium copper pin contact is fully recessed in the insulator, assuring positive contact alignment and robust performance. The socket contact is precision machined from high strength copper alloy and features a smooth lead-in chamfer.

The MicroPin features seven points of electrical contact. This contact system assures high normal force, excellent wipe and superior shock and vibration performance.



Specifications

Current Rating	3 Amps max
Dielectric Withstanding Voltage	900 VAC @ sea level; 300 VAC @ 70,000 feet altitude
Insulation Resistance	5000 megohms min.
Contact Resistance	8 milliohms max.
Operating Temperature	MTV polyester -56°C to +125°C; MTB diallyl phthalate -55°C to +150°C
Durability	500 cycles min.
Shock/Vibration	50 G's/20 G's
Connector Mating Force	(8 oz.) x (# of contacts)
Latch Retention	5 lbs. min.
Wire Size	#26 AWG insulated wire, #25 AWG uninsulated solid wire. MT strips will also accommodate #24 AWG through #32 AWG. For other wiring options contact the factory for ordering information.
	General Performance requirements in accordance with MIL-DTL-83513

Materials and Finishes

Insulator	MTV: Glass-filled polyester per MIL-M-24519; MTB: Glass-filled diallyl phthalate per MIL-M-14
Contact	Copper Alloy per MIL-C-83513
Contact Finish	50 Microinches Min. Gold Plated per MIL-G-45204
Insulated Wire	#26 AWG. 19/38 Stranded, silver-plated copper, TFE Teflon insulation per MIL-W-16878/4
Uninsulated Solid Wire	#25 AWG gold-plated copper per QQ-W-343
Potting Material/Contact Encapsulant	Epoxy
Latch	300 series stainless steel, passivated

How to Order



RoHS Compliance

Series

MTB1 – High Temperature Diallyl Phthalate 150°C (Recommended for severe environments)
MTV1 – Polyester 125°C (Recommended for general purpose use)

Number of Cavities

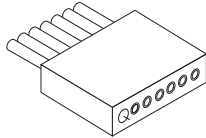
2 through 40.

This number is the total number of cavities including guide pins and latches. 40 positions is the maximum recommended size for standard strips, but sizes up to 120 positions are available on request.

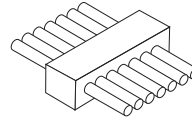
Contact Type

P- Pin

S – Socket



Pin Strip



Socket Strip

Termination Style

Solder Cup contacts for customer termination

S

Pre-wired Pigtails

H067 – Pre-wired pigtail with 18" of insulated Teflon wire per M22759/11, #26 AWG, 19 strand, yellow

HY01 – Pre-wired pigtail with 18" of insulated Teflon wire per M22759/11, #26 AWG, 19 strand, 10 color repeating

Straight Terminals .018" diameter, gold-plated

L1 – 5" extension

L2 – 1" extension

L57 – .190" extension

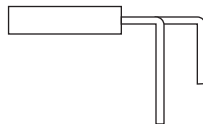
L61 – .125" extension



Right Angle Terminals staggered footprint .018" diameter, gold plated

AL57 – .190" extension

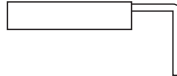
AL61 – .125" extension



Right Angle Terminals .050" in-line footprint .018" diameter, gold plated

BL57 – .190" extension

BL61 – .125" extension



Surface Mount .018" diameter, gold-plated

CL1



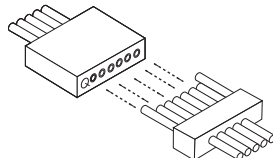
Guide Pin and Latch Options

01 – Guide pin installed in end cavities of socket strip. Blank holes in end cavities of pin strip.

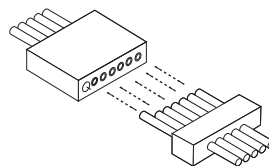
02 – Guide pin installed in cavity #1 of socket Strip. Blank holes in cavity #1 of pin strip.

03 – Spring latches installed in end cavities of socket strip. Latch clips installed in end cavities of pin strip. For use with MTV1 only.

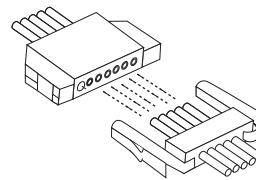
04 – Spring latch installed in center cavity of socket strip. Spring latch installed in center cavity of pin strip. For use with MTV1 only.



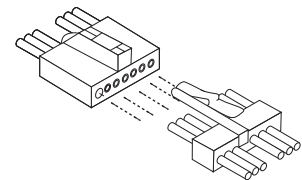
01
Guide Pins In End Cavities



02
Guide Pins In Cavity #1



03
End Latches



04
Center Latch

Dimensions shown in inch (mm)

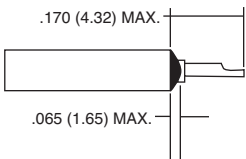
Specifications and dimensions subject to change

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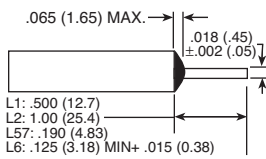
Connector Weights

Contact (with std. 1/2" copper pigtails)			.040 gms.
	MTB	pin	.021 gms.
Insulator (per contact cavity)		socket	.006 gms.
	MTV	pin	.014 gms.
		socket	.004 gms.
Guide Post	Stainless		.035 gms.
	Steel		
Latch	Male		.035 gms.
	Female		.074 gms.

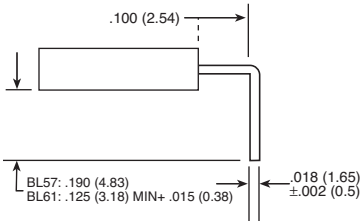
Terminal Dimensions



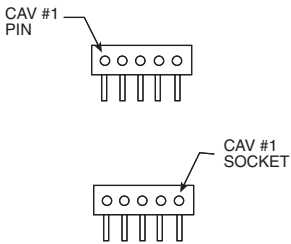
Solder Cup



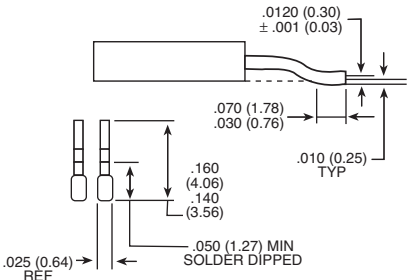
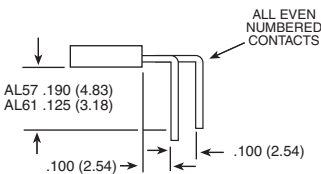
Straight Terminals



Right Angle Terminals
.050" Centers

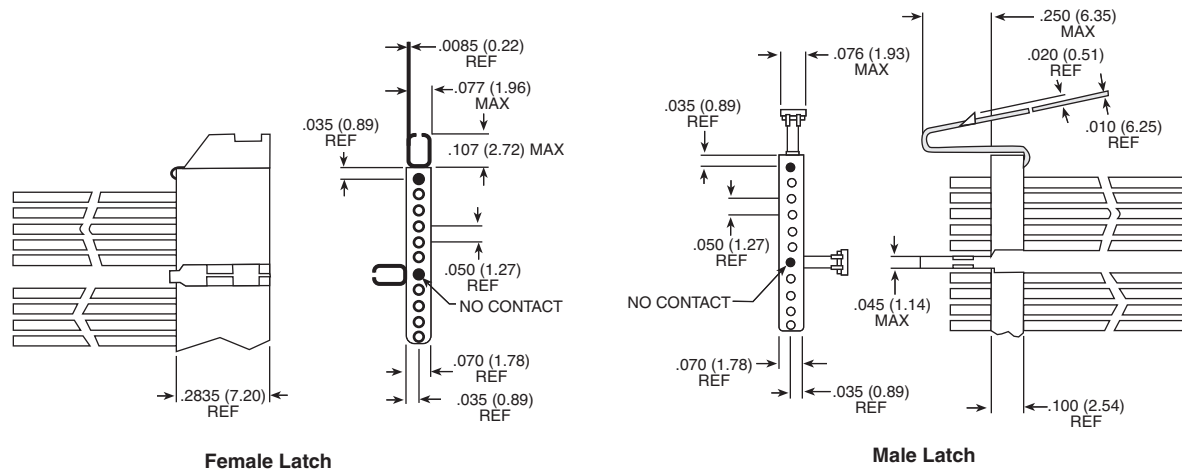


Right Angle Terminals
.100" Spacing Staggered

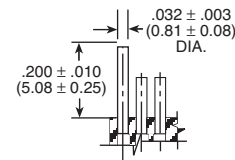


Surface Mount Terminals

Latch Dimensions



Guide Pin Dimensions



Standard Wire Termination Codes

The following termination codes are listed for your information. For additional codes please refer to Appendix on page 79 and 81. **All wire lengths are minimum.**

Harness Type - (H)

#26 AWG per MIL-W-16878 Type E; Teflon Stranded

Length	All Yellow	Color Coded
3 (76.2)	H020	H027
6 (152.4)	H019	H016
8 (203.2)	H026	H034
10 (254.0)	H029	H025
12 (304.8)	H028	H002
18 (457.2)	H001	H003
20 (508.0)	H033	H023
24 (609.6)	H009	H004
30 (762.0)	H010	H005
36 (914.4)	H011	H006
48 (1219.2)	H013	H048
72 (1828.5)	H017	H046
120 (3048.0)	H042	H041

Solid Uninsulated Type - (L)

#25 AWG Gold Plated Copper

Termination Code	Length
L61	.125 (3.18)
L56	.150 (3.81)
L57	.190 (4.83)
L39	.250 (6.35)
L58	.375 (9.52)
L1	.500 (12.70)
L14	.750 (19.05)
L2	1.000 (25.40)
L7	1.500 (38.10)
L6	2.000 (50.80)
L16	2.500 (63.50)
L10	3.000 (76.20)

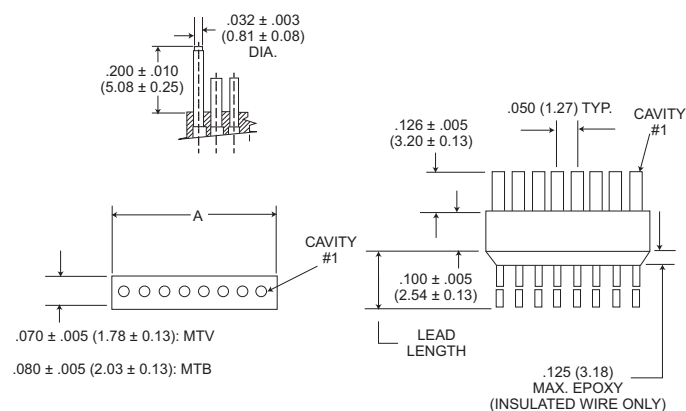
Polarization



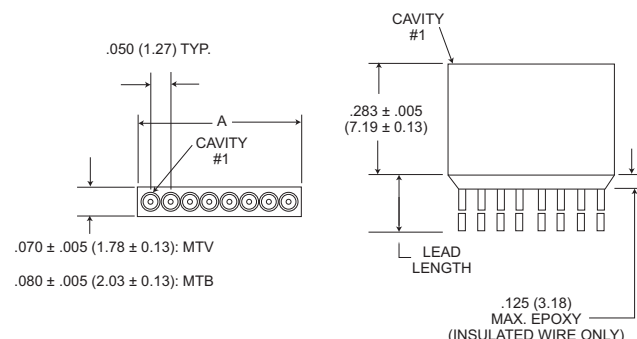
Modification code "-01" in the part number refers to guide posts located on both ends of the socket side of the 50-MIL STRIP connector and empty cavities on the pin side to accept the guide posts.

Although in many cases it is not necessary to polarize 50-MIL STRIP connectors, there are several ways to prevent cross plugging. One method is the use of guide posts that can be located in specified cavities to assure that the contacts will align when these post are positioned before mating.

MTB1 and MTV1 - .050 (1.27) Contact Centers



Receptacle

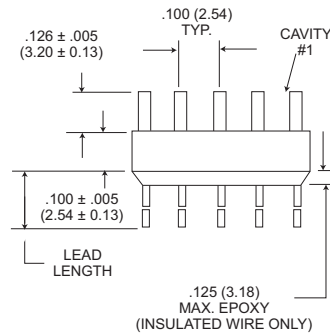
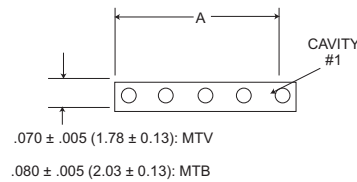
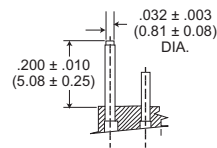


Plug

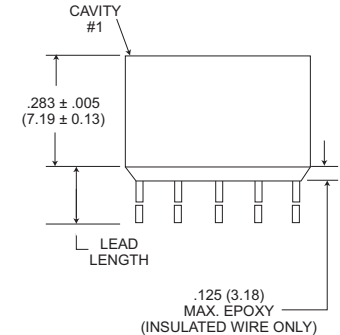
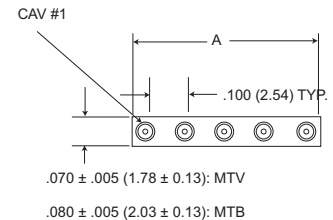
Part Number by Size	A ±.015 (0.38)	Part Number by Size	A ±.015 (0.38)	Part Number by Size	A ±.015 (0.38)	Part Number by Size	A ±.015 (0.38)	Part Number by Size	A ±.015 (0.38)	Part Number by Size	A ±.015 (0.38)	Part Number by Size	A ±.015 (0.38)
MT*1-1**	.070 (1.78)	MT*1-21**	1.070 (27.18)	MT*1-41**	2.070 (52.58)	MT*1-61**	3.070 (77.98)	MT*1-81**	4.070 (103.38)	MT*1-101**	5.070 (128.78)		
MT*1-2**	.120 (3.05)	MT*1-22**	1.120 (28.45)	MT*1-42**	2.120 (53.85)	MT*1-62**	3.120 (79.25)	MT*1-82**	4.120 (104.65)	MT*1-102**	5.120 (130.05)		
MT*1-3**	.170 (4.32)	MT*1-23**	1.170 (29.72)	MT*1-43**	2.170 (55.12)	MT*1-63**	3.170 (80.52)	MT*1-83**	4.170 (105.92)	MT*1-103**	5.170 (131.32)		
MT*1-4**	.220 (5.59)	MT*1-24**	1.220 (30.99)	MT*1-44**	2.220 (56.39)	MT*1-64**	3.220 (81.79)	MT*1-84**	4.220 (107.19)	MT*1-104**	5.220 (132.59)		
MT*1-5**	.270 (6.85)	MT*1-25**	1.270 (32.36)	MT*1-45**	2.270 (57.66)	MT*1-65**	3.270 (83.06)	MT*1-85**	4.270 (108.46)	MT*1-105**	5.270 (133.86)		
MT*1-6**	.320 (8.13)	MT*1-26**	1.320 (33.53)	MT*1-46**	2.320 (58.93)	MT*1-66**	3.320 (84.33)	MT*1-86**	4.320 (109.73)	MT*1-106**	5.320 (135.13)		
MT*1-7**	.370 (9.40)	MT*1-27**	1.370 (34.80)	MT*1-47**	2.370 (60.20)	MT*1-67**	3.370 (85.60)	MT*1-87**	4.370 (111.00)	MT*1-107**	5.370 (136.40)		
MT*1-8**	.420 (10.67)	MT*1-28**	1.420 (36.07)	MT*1-48**	2.420 (61.47)	MT*1-68**	3.420 (86.87)	MT*1-88**	4.420 (112.27)	MT*1-108**	5.420 (137.67)		
MT*1-9**	.470 (11.94)	MT*1-29**	1.470 (37.34)	MT*1-49**	2.470 (62.74)	MT*1-69**	3.470 (88.14)	MT*1-89**	4.470 (113.54)	MT*1-109**	5.470 (138.94)		
MT*1-10**	.520 (13.60)	MT*1-30**	1.520 (38.61)	MT*1-50**	2.520 (64.01)	MT*1-70**	3.520 (89.41)	MT*1-90**	4.520 (114.81)	MT*1-110**	5.520 (140.21)		
MT*1-11**	.570 (14.48)	MT*1-31**	1.570 (39.88)	MT*1-51**	2.570 (65.28)	MT*1-71**	3.570 (90.68)	MT*1-91**	4.570 (116.08)	MT*1-111**	5.570 (141.48)		
MT*1-12**	.620 (15.75)	MT*1-32**	1.620 (41.15)	MT*1-52**	2.620 (66.55)	MT*1-72**	3.620 (91.95)	MT*1-92**	4.620 (117.35)	MT*1-112**	5.620 (142.75)		
MT*1-13**	.670 (17.02)	MT*1-33**	1.670 (42.42)	MT*1-53**	2.670 (67.82)	MT*1-73**	3.670 (93.22)	MT*1-93**	4.670 (118.62)	MT*1-113**	5.670 (144.02)		
MT*1-14**	.720 (18.29)	MT*1-34**	1.720 (43.69)	MT*1-54**	2.720 (69.09)	MT*1-74**	3.720 (94.49)	MT*1-94**	4.720 (119.89)	MT*1-114**	5.720 (145.29)		
MT*1-15**	.770 (19.56)	MT*1-35**	1.770 (44.96)	MT*1-55**	2.770 (70.36)	MT*1-75**	3.770 (95.76)	MT*1-95**	4.770 (121.16)	MT*1-115**	5.770 (146.56)		
MT*1-16**	.820 (20.83)	MT*1-36**	1.820 (46.23)	MT*1-56**	2.820 (71.63)	MT*1-76**	3.820 (97.03)	MT*1-96**	4.820 (122.43)	MT*1-116**	5.820 (147.83)		
MT*1-17**	.870 (22.10)	MT*1-37**	1.870 (47.50)	MT*1-57**	2.870 (72.90)	MT*1-77**	3.870 (98.30)	MT*1-97**	4.870 (123.70)	MT*1-117**	5.870 (149.10)		
MT*1-18**	.920 (23.37)	MT*1-38**	1.920 (48.77)	MT*1-58**	2.920 (74.17)	MT*1-78**	3.920 (99.57)	MT*1-98**	4.920 (124.97)	MT*1-118**	5.920 (150.37)		
MT*1-19**	.970 (24.64)	MT*1-39**	1.970 (50.04)	MT*1-59**	2.970 (75.44)	MT*1-79**	3.970 (100.84)	MT*1-99**	4.970 (126.24)	MT*1-119**	5.970 (151.64)		
MT*1-20**	1.020 (25.91)	MT*1-40**	2.020 (51.31)	MT*1-60**	3.020 (76.71)	MT*1-80**	4.020 (102.11)	MT*1-100**	5.020 (127.50)	MT*1-120**	6.020 (152.91)		

NOTE: MTB1 available in up to 120 contacts.

MTB2 and MTV2 - .100 (2.54) Contact Centers



Receptacle



Plug

Part Number by Size	A ±.015 (0.38)	Part Number by Size	A ±.015 (0.38)
MT*2-1**	.070 (1.78)	MT*2-31**	3.070 (77.98)
MT*2-2**	.170 (4.32)	MT*2-32**	3.170 (80.52)
MT*2-3**	.270 (6.86)	MT*2-33**	3.270 (83.06)
MT*2-4**	.370 (9.40)	MT*2-34**	3.370 (85.60)
MT*2-5**	.470 (11.94)	MT*2-35**	3.470 (88.14)
MT*2-6**	.570 (14.48)	MT*2-36**	3.570 (90.68)
MT*2-7**	.670 (17.02)	MT*2-37**	3.670 (93.22)
MT*2-8**	.770 (19.56)	MT*2-38**	3.770 (95.76)
MT*2-9**	.870 (22.10)	MT*2-39**	3.870 (98.30)
MT*2-10**	.970 (24.64)	MT*2-40**	3.970 (100.84)
MT*2-11**	1.070 (27.18)	MT*2-41**	4.070 (103.38)
MT*2-12**	1.170 (29.72)	MT*2-42**	4.170 (105.92)
MT*2-13**	1.270 (32.26)	MT*2-43**	4.270 (108.46)
MT*2-14**	1.370 (34.80)	MT*2-44**	4.370 (111.00)
MT*2-15**	1.470 (37.34)	MT*2-45**	4.470 (113.54)
MT*2-16**	1.570 (39.88)	MT*2-46**	4.570 (116.08)
MT*2-17**	1.670 (42.42)	MT*2-47**	4.670 (118.62)
MT*2-18**	1.770 (44.96)	MT*2-48**	4.770 (121.16)
MT*2-19**	1.870 (47.50)	MT*2-49**	4.870 (123.70)
MT*2-20**	1.970 (50.04)	MT*2-50**	4.970 (126.24)
MT*2-21**	2.070 (52.58)	MT*2-51**	5.070 (128.78)
MT*2-22**	2.170 (55.12)	MT*2-52**	5.170 (131.32)
MT*2-23**	2.270 (57.66)	MT*2-53**	5.270 (133.86)
MT*2-24**	2.370 (60.20)	MT*2-54**	5.370 (136.40)
MT*2-25**	2.470 (62.74)	MT*2-55**	5.470 (138.94)
MT*2-26**	2.570 (65.28)	MT*2-56**	5.570 (141.48)
MT*2-27**	2.670 (67.82)	MT*2-57**	5.670 (144.02)
MT*2-28**	2.770 (70.36)	MT*2-58**	5.770 (146.56)
MT*2-29**	2.870 (72.90)	MT*2-59**	5.870 (149.10)
MT*2-30**	2.970 (75.44)	MT*2-60**	5.970 (151.64)

Dimensions shown in inch (mm)

Specifications and dimensions subject to change

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