

The Cannon DL Series of Zero Insertion Force (ZIF) connectors fill the need in the medical, commercial / industrial, computer, and peripheral equipment market places for low-cost, high performance, multiple-wire power and signal connectors.

DL connectors feature: a minimum rated life of 10,000 complete mating and unmating cycles with no performance loss; can be mated and unmated in less than two seconds even with as many as 2496 contacts; and they cost less (often as much as 25% less) per mated line than singular high-density rack-and-panel connectors.

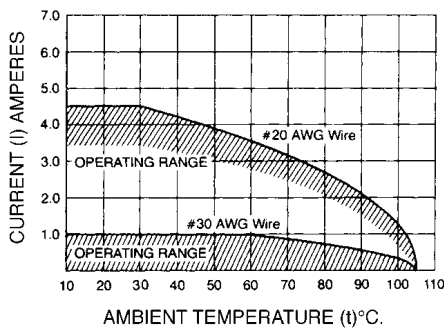
*Simple. Effective. Reliable. Durable*

Combining their special design with commercial-grade materials and low cost crimp, PCB, and wrappable hermaphroditic contacts, that may be hand or machine terminated, makes the DL Series of ZIF connectors the finest low-cost-per-mated-line I/O connectors available today.

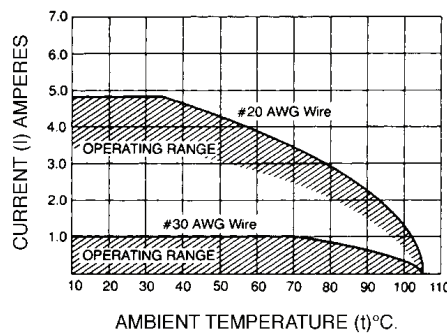


## Derating Curves

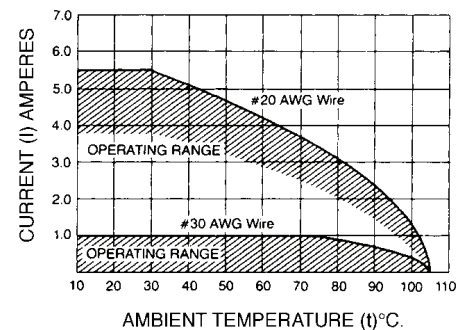
**DL1**



**DL2**



**DL3**



The ambient temperature curves shown represent the rated current carrying capacity of the Cannon DL1/2/3/4, electrical connectors, derated to 80% of the values recorded during the methods specified by International Electro-Technical Commission Document 48 (1975).

Current was applied to the total connector (all contacts) in one-half ampere increments and maintained at each current level until thermal stability was achieved. A thermocouple inserted into the "hottest area" of each connector then measured the connector temperature at the same time that an ambient temperature reading was taken. The difference between the two measured values is the heat rise or self-heating created solely by the current flow, and this temperature rise for the current level was deducted from the insulator material rated temperature. These values were then derated to 80% to obtain the curves shown.

## Standard Materials and Finishes

<b>DL Housing:</b>	Glass Filled Thermoplastic, UL 94V-1 rated, Color: Black
<b>Crimp Contacts and Square Post Contacts:</b>	- Copper alloy, 20 or 50 microinches gold over 50 microinches nickel in mated area, gold flash on balance
<b>Actuating Camshaft:</b>	Stainless steel, Passivated
<b>Insulator Retainer (Plug Only)</b>	Stainless steel, Passivated

## Electrical Data

<b>No. of Contacts:</b>	60, 96, 156, and 260 signal
<b>Wire Size:</b>	#18 AWG through #42 AWG
<b>Contact Termination:</b>	- Crimp - Square Post - Wrap Post - Buss - Pressfit

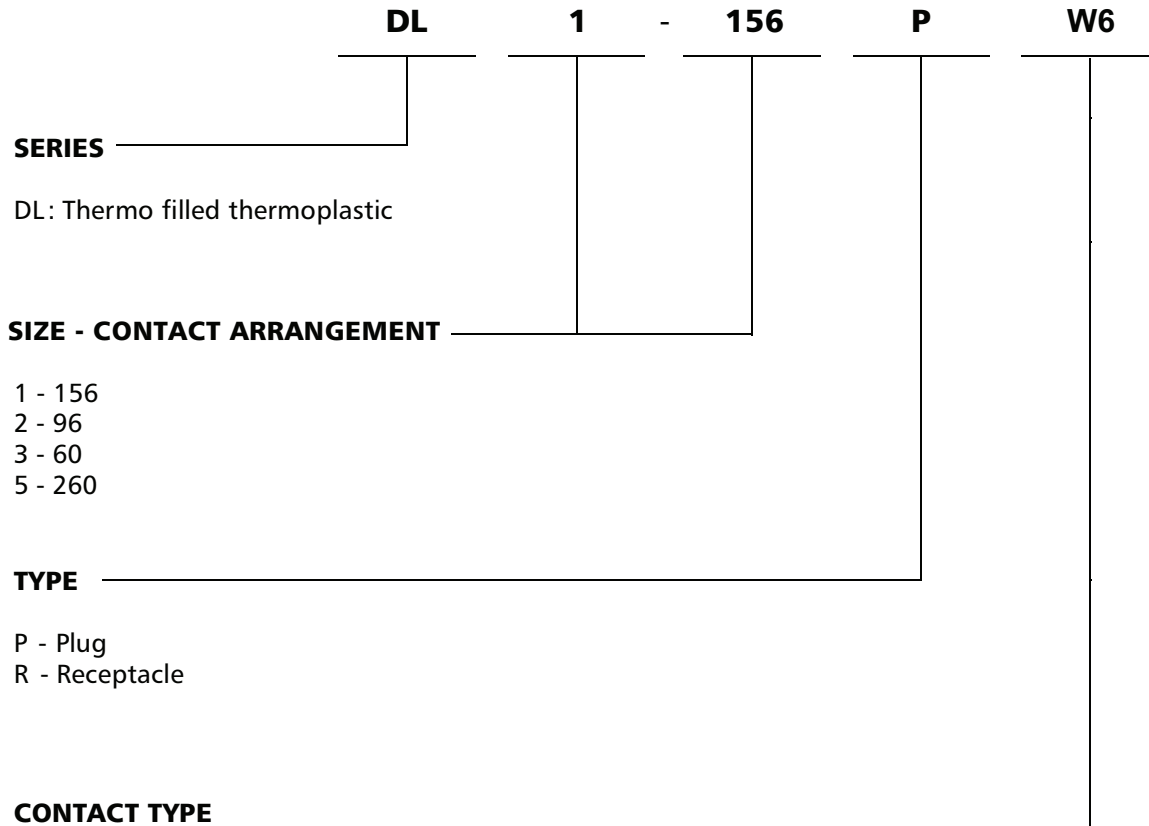
## Mechanical Data

<b>Actuation:</b>	Single Hand
<b>Coupling:</b>	Rotating latch
<b>Polarization:</b>	Polarizing Posts
<b>Contact Spacing:</b>	2,54 (0.100) Square Grid
<b>Shell Styles:</b>	Plug and Receptacle

## Performance Data

<b>Current Rating:</b>	5 A max - Crimp/Square Post/PCB contact 10 A, 20 A, 30 A, 40 A, 50 A, 60 A max - Buss contact
<b>Dielectric Withstanding Voltage:</b>	1200 VAC RMS - Crimp/Square Post Contact
<b>Operating Temperature:</b>	-55°C to 105°C (DL/DLM/DLD)
<b>Insulation Resistance:</b>	5000 Megaohms minimum
<b>Durability:</b>	10,000 Cycles minimum
<b>Contact Resistance:</b>	15 m $\Omega$ max. - Crimp/Square Post Contact 20 m $\Omega$ max. - Crimp #32 AWG - #30 AWG Contact
<b>Insulation Resistance:</b>	5000 M $\Omega$ min.
<b>Wire Accommodation:</b>	#42 AWG - #18 AWG
<b>Contact Retention:</b>	8 lb (35.585 N) minimum

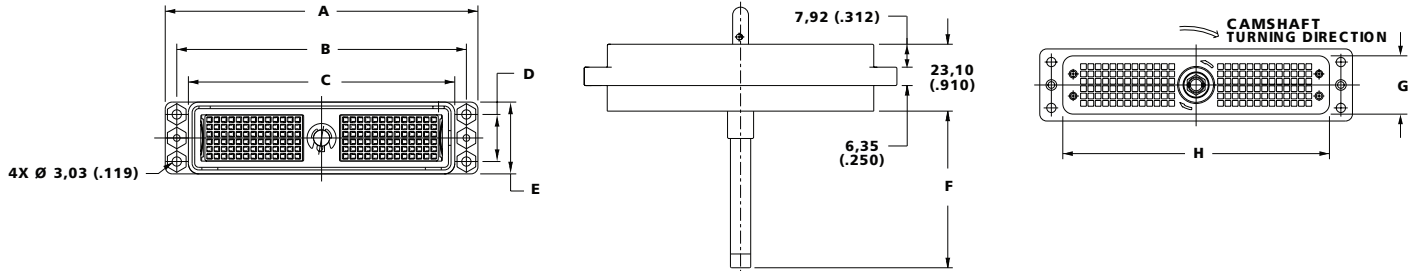
How to Order



### Plug

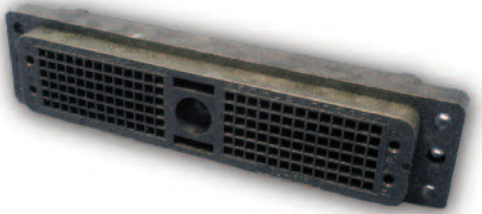


- Order Actuating Handle Kit sold separately, see page 44.
- Crimp Contacts are to be ordered separately and to be installed by customer, see pages 48-50.
- For contact cavity arrangements see pages 69-70.
- For panel cutout and mounting hole pattern, see page 66.
- For PC hole pattern, see pages 59-61.

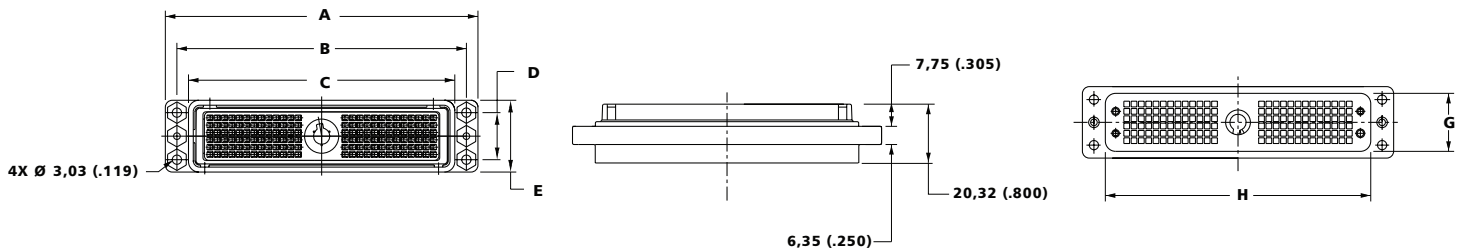


Description	A	B	C	D	E	F	G	H
<b>DL3-60P</b>	65,80 (2.592)	57,91 (2.280)	50,55 (1.992)	11,89 (0.466)	24,90 (0.981)	39,19 (1.543)	24,90 (0.981)	49,02 (1.931)
<b>DL2-96P</b>	65,80 (2.592)	57,91 (2.280)	50,60 (1.994)	19,38 (.763)	28,12 (1.108)	39,19 (1.543)	24,05 (0.947)	50,60 (1.994)
<b>DL1-156P</b>	108,00 (4.255)	100,03 (3.938)	92,26 (3.631)	16,26 (0.640)	24,90 (0.980)	54,81 (2.158)	20,10 (0.792)	92,10 (3.626)
<b>DL5-260P</b>	108,00 (4.255)	100,03 (3.938)	92,26 (3.631)	26,00 (1.024)	35,00 (1.378)	54,26 (2.136)	30,30 (1.193)	92,10 (3.626)

### Receptacle



- Crimp Contacts are to be ordered separately and to be installed by customer, see pages 48-50.
- For contact cavity arrangements see pages 69-70.
- For panel cutout and mounting hole pattern, see page 66.
- For PC hole pattern, see pages 59-61.



Description	A	B	C	D	E	G	H
<b>DL3-60R</b>	65,80 (2.592)	57,91 (2.280)	50,50 (1.988)	11,89 (0.468)	24,90 (0.981)	19,18 (0.755)	49,02 (1.931)
<b>DL2-96R</b>	65,80 (2.592)	57,91 (2.280)	50,60 (1.994)	19,38 (.763)	28,12 (1.108)	24,05 (0.947)	50,60 (1.994)
<b>DL1-156R</b>	108,00 (4.255)	100,03 (3.938)	92,10 (3.622)	16,26 (0.640)	24,90 (0.980)	20,10 (0.792)	92,10 (3.626)
<b>DL5-260R</b>	108,00 (4.255)	100,03 (3.938)	92,10 (3.622)	26,00 (1.024)	35,00 (1.378)	30,30 (1.193)	92,10 (3.626)

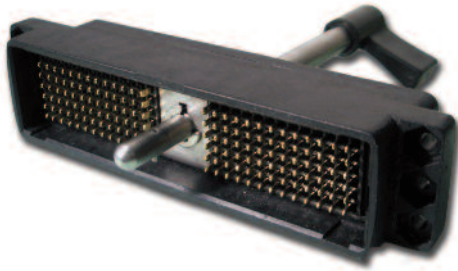
Notes:  
Crimp contacts are to be ordered separately and to be installed by customer, see pages 49-50.

Dimensions shown in mm (inch)  
Specifications and dimensions subject to change

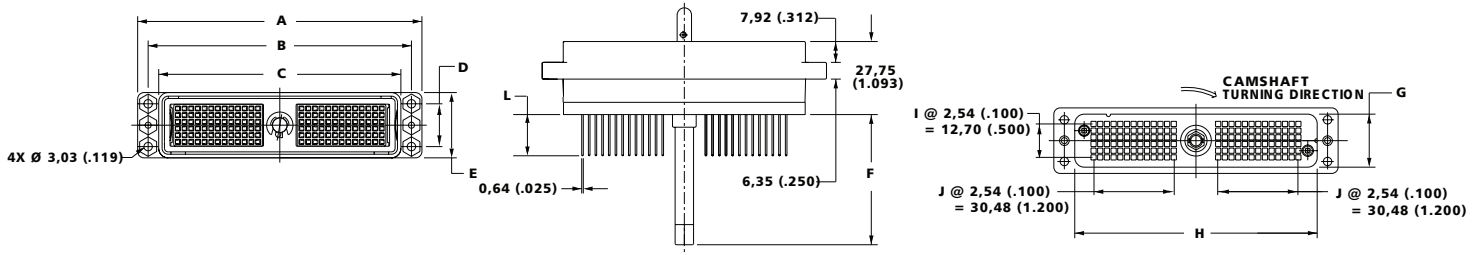
# Cannon ZIF Connectors

## DL - Plastic Body - Square / Wrap Post Contacts

### Plug



- Order Actuating Handle Kit sold separately, see page 44.
- For contact cavity arrangements see pages 69-70.
- For panel cutout and mounting hole pattern, see page 66.
- For PC hole pattern, see pages 59-61.



Description	A	B	C	D	E	F	G	H	I	J	L
<b>DL3-60PW4</b> <b>DL3-60PW4A</b>	65,80 (2.592)	57,91 (2.280)	50,55 (1.992)	11,89 (.468)	24,90 (.981)	34,54 (1.360)	19,94 (.785)	49,02 (1.931)	5 spaces	4 spaces	15,37 (.605)
<b>DL3-60PW6</b> <b>DL3-60PW6A</b>	65,80 (2.592)	57,91 (2.280)	50,55 (1.992)	11,89 (.468)	24,90 (.981)	34,54 (1.360)	19,94 (.785)	49,02 (1.931)	5 spaces	4 spaces	7,11 (.280)
<b>DL3-60PW9A</b>	65,80 (2.592)	57,91 (2.280)	50,55 (1.992)	11,89 (.468)	24,90 (.981)	34,54 (1.360)	19,94 (.785)	49,02 (1.931)	5 spaces	4 spaces	3,18 (.125)
<b>DL2-96PW4</b> <b>DL2-96PW4A</b>	65,80 (2.592)	57,91 (2.280)	50,60 (1.994)	19,38 (.763)	28,12 (1.108)	34,54 (1.360)	24,05 (.947)	50,60 (1.994)	7 spaces	6 spaces	15,37 (.605)
<b>DL2-96PW6</b> <b>DL2-96PW6A</b>	65,80 (2.592)	57,91 (2.280)	50,60 (1.994)	19,38 (.763)	28,12 (1.108)	34,54 (1.360)	24,05 (.947)	50,60 (1.994)	7 spaces	6 spaces	7,11 (.280)
<b>DL2-96PW9A</b>	65,80 (2.592)	57,91 (2.280)	50,60 (1.994)	19,38 (.763)	28,12 (1.108)	34,54 (1.360)	24,05 (.947)	50,60 (1.994)	7 spaces	6 spaces	3,18 (.125)
<b>DL1-156PW4</b> <b>DL1-156PW4A</b>	108,00 (4.255)	100,03 (3.983)	92,26 (3.631)	16,26 (.640)	24,90 (.981)	50,16 (1.975)	20,10 (.792)	92,10 (3.626)	5 spaces	12 spaces	15,37 (.605)
<b>DL1-156PW6</b> <b>DL1-156PW6A</b>	108,00 (4.255)	100,03 (3.983)	92,26 (3.631)	16,26 (.640)	24,90 (.981)	50,16 (1.975)	20,10 (.792)	92,10 (3.626)	5 spaces	12 spaces	7,11 (.380)
<b>DL1-156PW9A</b>	108,00 (4.255)	100,03 (3.983)	92,26 (3.631)	16,26 (.640)	24,90 (.981)	50,16 (1.975)	20,10 (.792)	92,10 (3.626)	5 spaces	12 spaces	3,18 (.125)
<b>DL5-260PW4</b> <b>DL5-260PW4A</b>	108,00 (4.255)	100,03 (3.983)	92,26 (3.631)	26,00 (1.024)	35,00 (1.378)	49,61 (1.953)	30,30 (1.193)	92,10 (3.626)	9 spaces	12 spaces	15,37 (.604)
<b>DL5-260PW6</b> <b>DL5-260PW6A</b>	108,00 (4.255)	100,03 (3.983)	92,26 (3.631)	26,00 (1.024)	35,00 (1.378)	49,61 (1.953)	30,30 (1.193)	92,10 (3.626)	9 spaces	12 spaces	7,11 (.280)
<b>DL5-260PW9A</b>	108,00 (4.255)	100,03 (3.983)	92,26 (3.631)	26,00 (1.024)	35,00 (1.378)	49,61 (1.953)	30,30 (1.193)	92,10 (3.626)	9 spaces	12 spaces	3,18 (.125)

Notes:  
Front removable 0,64 (0.025) square posts 2,54 (0.100) Centers.  
1 space at 2,54 (0.100)

Dimensions shown in mm (inch)  
Specifications and dimensions subject to change

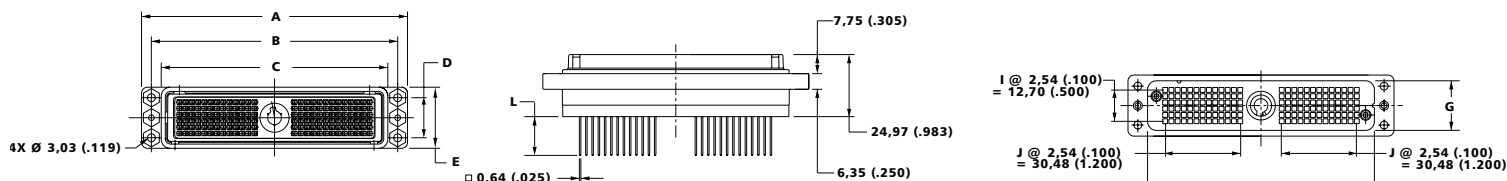


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### Receptacle



- For contact cavity arrangements see pages 69-70.
- For panel cutout and mounting hole pattern, see page 66.
- For PC hole pattern, see pages 59-61.



Description	A	B	C	D	E	G	H	I	J	L
<b>DL3-60RW4</b> <b>DL3-60RW4B</b>	65,80 (2.592)	57,91 (2.280)	50,50 (1.988)	11,89 (.466)	24,90 (.980)	19,94 (0.785)	49,02 (1.931)	5 spaces	4 spaces	15,37 (.605)
<b>DL3-60RW6</b> <b>DL3-60RW6B</b>	65,80 (2.592)	57,91 (2.280)	50,50 (1.988)	11,89 (.466)	24,90 (1.360)	19,94 (.785)	49,02 (1.931)	5 spaces	4 spaces	7,11 (.280)
<b>DL3-60RW9B</b>	65,80 (2.592)	57,91 (2.280)	50,50 (1.988)	11,89 (0.466)	24,90 (1.360)	19,94 (.785)	49,02 (1.931)	5 spaces	4 spaces	3,18 (.125)
<b>DL2-96TW4</b> <b>DL2-96RW4B</b>	65,80 (2.592)	57,91 (2.280)	50,60 (1.994)	19,38 (.763)	28,12 (1.108)	24,05 (.947)	50,60 (1.994)	7 spaces	6 spaces	15,37 (.605)
<b>DL2-96RW6</b> <b>DL2-96RW6B</b>	65,80 (2.592)	57,91 (2.280)	50,60 (1.994)	19,38 (.763)	28,12 (1.108)	24,05 (.947)	50,60 (1.994)	7 spaces	6 spaces	7,11 (.280)
<b>DL2-96RW9B</b>	65,80 (2.592)	57,91 (2.280)	50,60 (1.994)	19,38 (.763)	28,12 (1.108)	24,05 (.947)	50,60 (1.994)	7 spaces	6 spaces	3,18 (.125)
<b>DL1-156RW4</b> <b>DL1-156RW4B</b>	108,00 (4.255)	100,03 (3.983)	92,00 (3.622)	16,26 (.640)	24,90 (.980)	20,10 (.792)	92,10 (3.626)	5 spaces	12 spaces	15,37 (.605)
<b>DL1-156RW6</b> <b>DL1-156RW6B</b>	108,00 (4.255)	100,03 (3.983)	92,00 (3.622)	16,26 (.640)	24,90 (.980)	20,10 (.792)	92,10 (3.626)	5 spaces	12 spaces	7,11 (.380)
<b>DL1-156RW9B</b>	108,00 (4.255)	100,03 (3.983)	92,00 (3.622)	16,26 (.640)	24,90 (.980)	20,10 (.792)	92,10 (3.626)	5 spaces	12 spaces	3,18 (.125)
<b>DL5-260RW4</b> <b>DL5-260RW4B</b>	108,00 (4.255)	100,03 (3.983)	92,00 (3.622)	26,00 (1.024)	35,00 (1.378)	30,30 (1.193)	92,10 (3.626)	9 spaces	12 spaces	15,37 (.604)
<b>DL5-260RW6</b> <b>DL5-260RW6B</b>	108,00 (4.255)	100,03 (3.983)	92,00 (3.622)	26,00 (1.024)	35,00 (1.378)	30,30 (1.193)	92,10 (3.626)	9 spaces	12 spaces	7,11 (.280)
<b>DL5-260RW9B</b>	108,00 (4.255)	100,03 (3.983)	92,00 (3.622)	26,00 (1.024)	35,00 (1.378)	30,30 (1.193)	92,10 (3.626)	9 spaces	12 spaces	3,18 (.125)

Notes:

Front removable 0,64 (0.025) square posts 2,54 (0.100) Centers.

1 space at 2,54 (0.100)