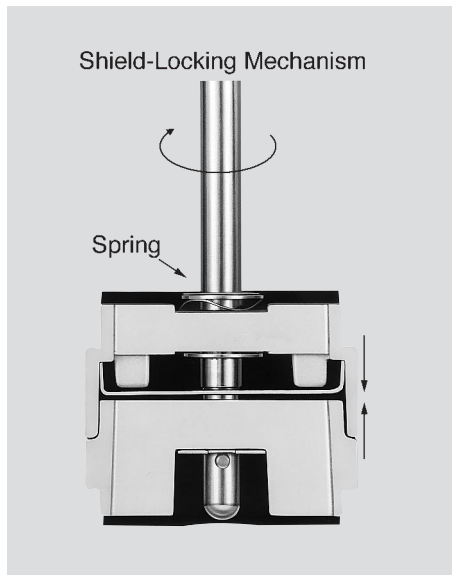


DLM Product Introduction

Cannon has expanded the DL-ZIF Series offering with the addition of the DLM (Metal Shell) versions. The DLM uses a rugged nickel plated aluminum housing. The Shield-Locking Mechanism feature (see illustration below) ensures uniform mating pressure around the perimeter of the mated connector to create an EMI/RFI shield. Facilitates compliance of equipment to CE EMC directives.



The DLM1/2/3 connectors are an extension of the DL line, similar to the current DLM5 and DLM6 products. The DLM series connectors are interchangeable to the DL (Plastic) versions for backwards/forwards compatibility.

The DLM Series are offered with the 3,18(.125) long 0,64(.025) square post 50μ inch gold contacts, as well as the 4,50(.177) long ∅ 0,50(.020) PC/RC round tail contacts.

Materials and Finishes

DLM1/2/3/5/6 Housing	Aluminum alloy, nickel plated
DLM1/2/3/5/6 Insulator	Glass filled thermoplastic, UL 94V-0 rated, Color: Black
Crimp Contact*	Copper alloy, 50μ inches gold over 50μ inches nickel in mating area, gold flash on balance
	Copper alloy, 20μ inches gold over 50μ inches nickel in mating area, tin lead on balance
Square Post Contact	Copper alloy, 50μ inches gold over 50μ inches nickel in mating area, gold flash on balance
	Copper alloy, 20μ inches gold over 50μ inches nickel in mating area, gold flash on balance
PC/RC Contact	Copper alloy, 20μ inches gold over nickel in mating area, tin lead on balance
Actuating Camshaft	Stainless steel, Passivated
Insulator Retainer (Plug Only)	Stainless steel, Passivated

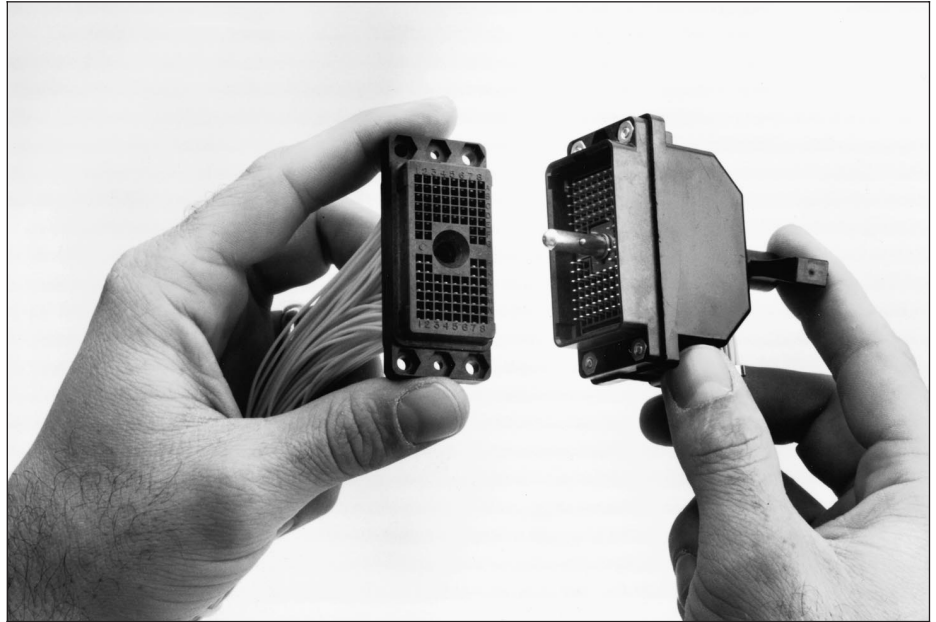
\* Order crimp contacts separately, see pages 52-53.

## DL/DLM Product Features

- High pin count: 60, 96, 156, 260, 360, 624, 1248\* or 2496\* contact positions.
- Variety of contacts:
  - Crimp
  - Square Post
  - Wrap Post
  - Buss
  - PC/RC
- Metal or plastic housing.
- Wide range of accessories.
- Easy actuation by screwdriver, socket wrench (DL1/2/3 only), allen wrench or actuating handle (see accessories page 47).

The long life and rapid mating are achieved through the use of our Zero Insertion Force design. Contacts in the plug and receptacle do not touch each other while the connector halves are being engaged.

### Zero Insertion Force Camming Instructions



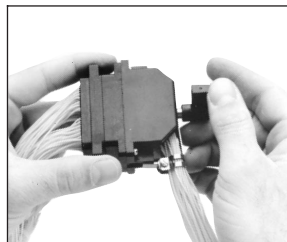
### It's as easy as 1, 2, 3...

- Step 1.** The plug is placed over the receptacle.  
**Step 2.** A "quarter turn" of an actuating shaft mates all the contacts at once.  
**Step 3.** The "same quarter" turn also physically locks the connector halves together.

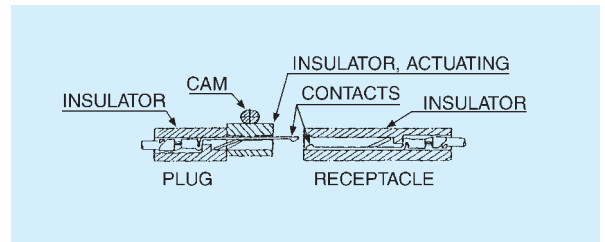
Connector engagement force is zero, and the only wear on the contacts occurs as they are pressed together and lightly wiped past each other during the camming and locking operation.

\* Contact Cannon for details.

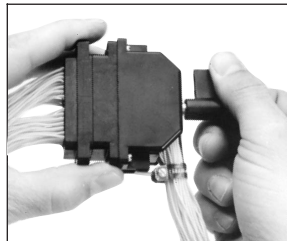
### This is our "DL/DLM" series of connectors.



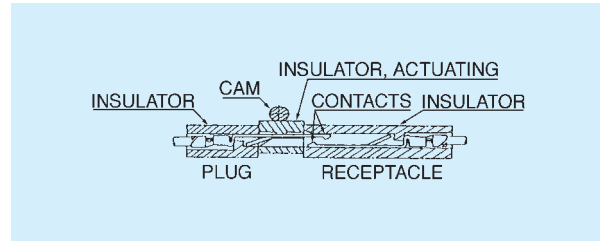
Step 1. Simply place it together.



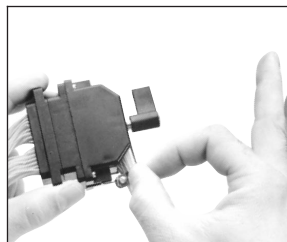
Contacts aligned.



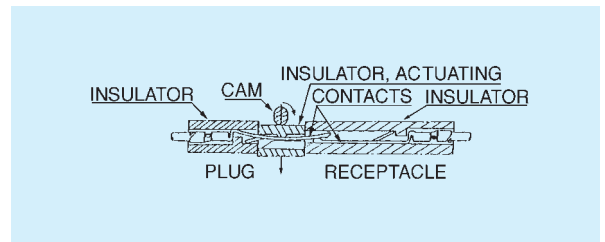
Step 2. Turn the cam a quarter turn.



Contacts engaged.



Step 3. It's locked and mated.



Contacts are mated.

DL/DLM/DLD Applications

**Medical**

- Ultrasound Diagnostic
- Patient Monitoring
- Hospital Equipment

**Test & Instrumentation**

- Avionics
- Automated Test Equipment
- Computer & Peripheral Equipment
- Semiconductor

**Commercial/Industrial Manufacturing**

- Automation
- Robotics
- Electrical Controls

**Entertainment**

- Recording Studio Equipment
- Stage Lighting & Sound
- Broadcasting Equipment

**Telecommunication**

- Systems Interconnect
- Manufacturing Test Equipment
- Switching Systems

**Transportation**

- Locomotive Systems
- Automotive Electronics
- Aircraft Simulators

**Signal and Power Distribution Cable Harness**



For your complete cable harnessing resource, contact Cannon for details.

DL/DLM/DLD Performance Specifications

Current Rating	5 A max. - Crimp/Square Post/PCB Contact 4 A max. - PC/RC Contact 10 A, 20 A, 30 A, 40 A, 50 A, 60 A max. - Buss Contact
Dielectric Withstanding Voltage	1200 VAC RMS - Crimp/Square Post Contact 1000 VAC RMS - PC/RC Contact 750 VAC RMS - DL4
Operating Temperature	-55°C to 105°C (DL/DLM/DLD) -55°C to 71°C (DL4)
Durability	10,000 Cycles min. (DL/DLM) 20,000 Cycles min. (DL4) 100,000 Cycles min. (DLD)
Contact Resistance	15 mΩ max. - Crimp/Square Post Contact 20 mΩ max. - Crimp #32 AWG - #30 AWG Contact 30 mΩ max. - PC/RC Contact
Insulation Resistance	5000 MΩ min.
Wire Accommodation	#42 AWG-#18 AWG
Contact Spacing	2,54 (.100) Square Grid
Contact Retention:	8 lbs (35,585 N) min.

DL/DLM/DLD Mechanical Data

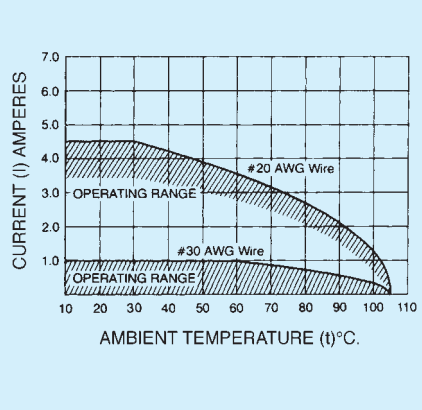
Polarization	Polarizing Posts
Contact Termination	PC Tails, Straight Crimp Square Post Wrap Post Buss

## DL/DLM/DLD Temperature/Current Rating

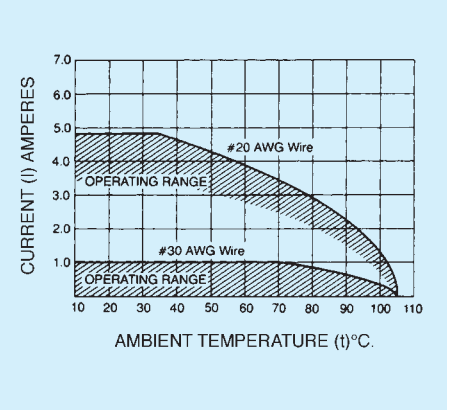
The ambient temperature curves shown represent the rated current carrying capacity of the Cannon DL1/2/3/4, DLM1/2/3 and DLD1/2 electrical connectors, derated to 80% of the values recorded using the methods specified by International Electro-Technical Commission Document 48 (1975).

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.

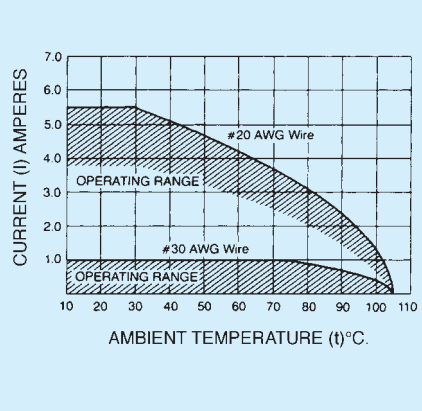
**DL1/DLM1/DLD1**



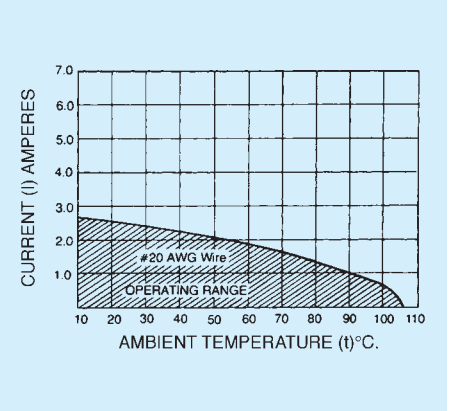
**DL2/DLM2/DLD2**



**DL3/DLM3**



**DL4**



## DL/DLM/DLD Test Data

Test Description	MIL Standard	Test Method
Dielectric Withstanding Voltage	MIL-STD-202	301
Contact Resistance	MIL-STD-202	307
Insulation Resistance	MIL-STD-202	302, Condition B
Humidity (Standard)	MIL-STD-202	103, Condition B
Humidity (DL4)	MIL-STD-202	106
Salt Spray	MIL-STD-202	101, Condition B (48 Hours)
Shock	MIL-STD-202	213, Condition A (50 G's)
Vibration (Standard)	MIL-STD-202	204, Condition C
Vibration (DL4)	MIL-STD 167-1/2 Modified	—

DLM1 — Metal Body — 156 Pin Connectors — Crimp Contacts

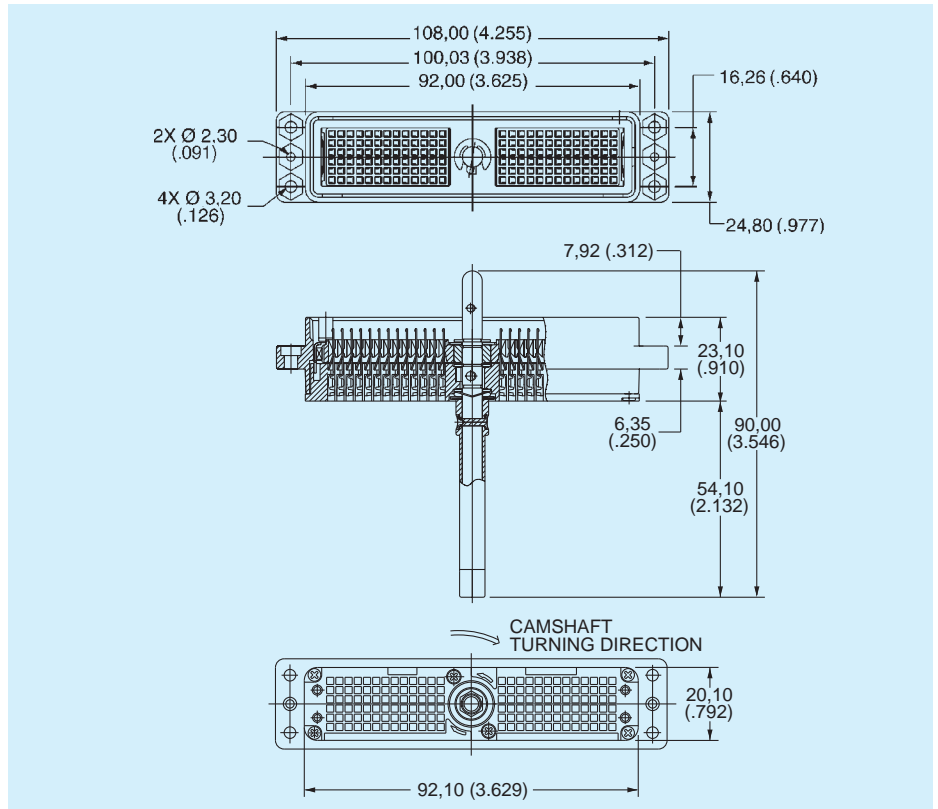
Plug

DLM1, DLM1, DLM1

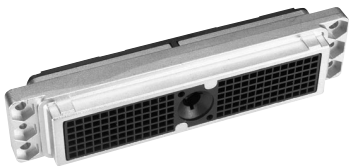


- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- Crimp contacts are to be ordered separately and installed by customer, see pages 52-53.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature
127050-0204	DLM1-156P

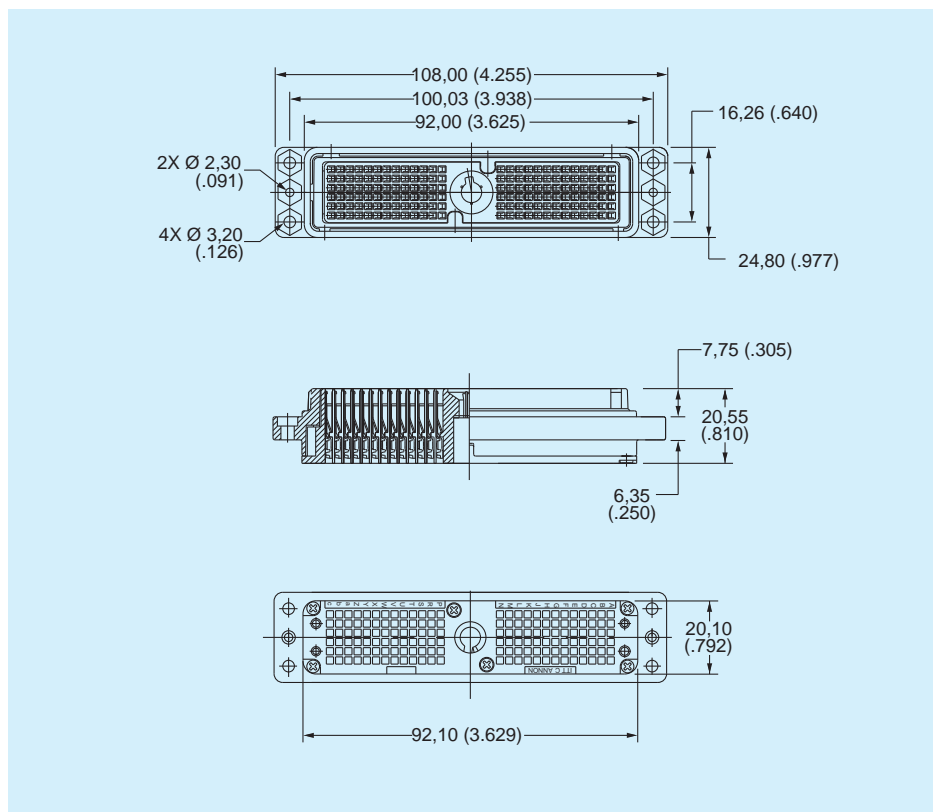


Receptacle



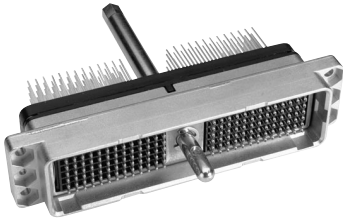
- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- Crimp contacts are to be ordered separately and installed by customer, see pages 52-53.

Part Number	Nomenclature
127050-0208	DLM1-156R



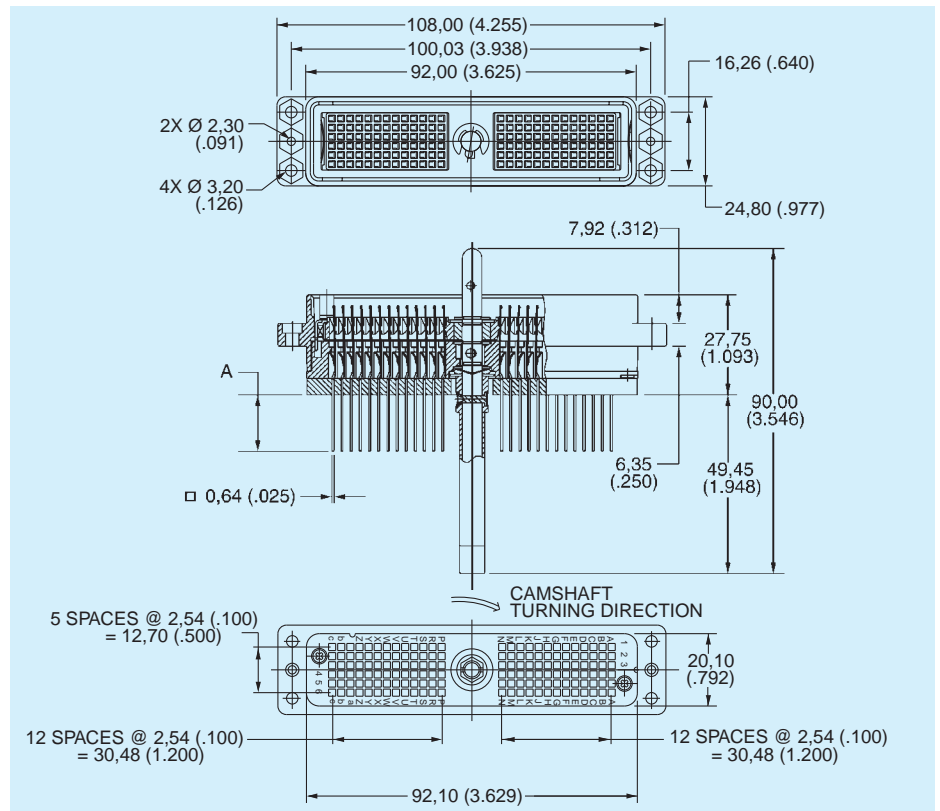
DLM1 — Metal Body — 156 Pin Connectors — Square Post Contacts

Plug



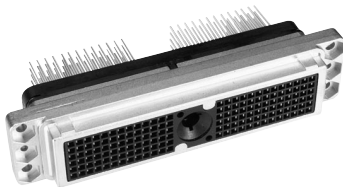
- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 60.
- Front Removable 0,64 (.025) Square Posts 2,54 (.100) Centers.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature	A
112134-0001	DLM1-156PW4A	15,37 (.605)
112134-0000	DLM1-156PW6A	7,11 (.280)
112134-0002	DLM112134-2	3,18 (.125)



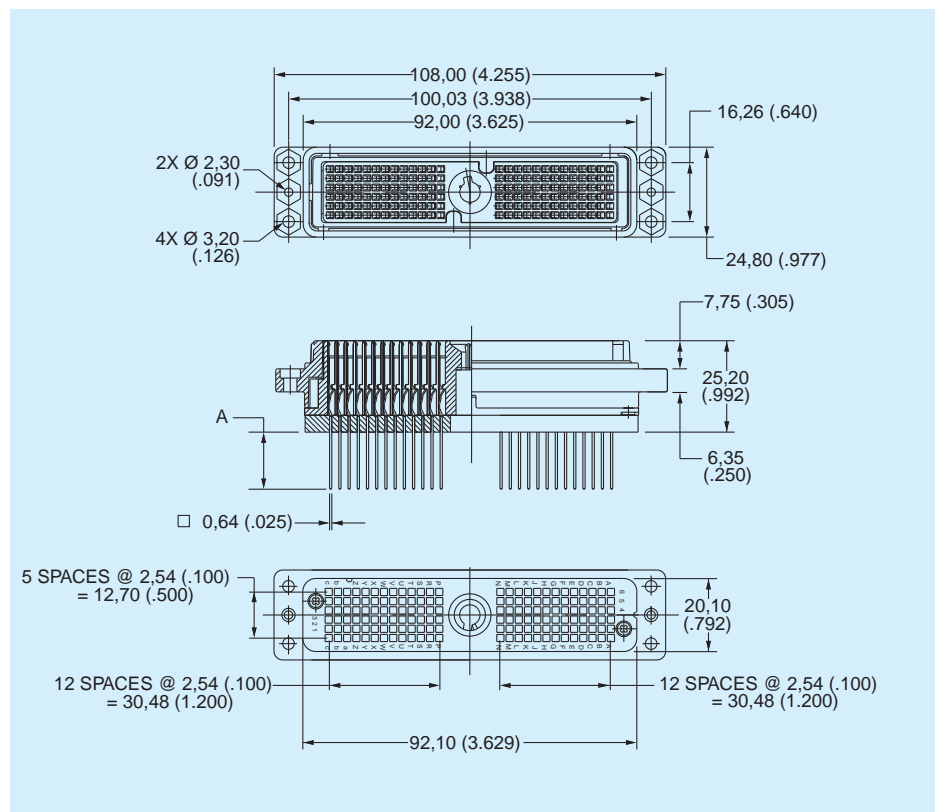
DLM1, DLM1, DLM1

Receptacle



- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 60.
- Front Removable 0,64 (.025) Square Posts 2,54 (.100) Centers.

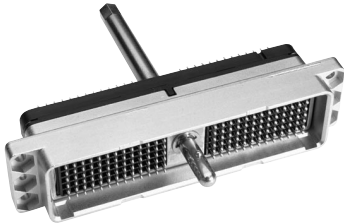
Part Number	Nomenclature	A
112135-0001	DLM1-156RW4B	15,37 (.605)
112135-0000	DLM1-156RW6B	7,11 (.280)
112135-0002	DLM112135-2	3,18 (.125)



DLM1 — Metal Body — 156 Pin Connectors — PC/RC Contacts

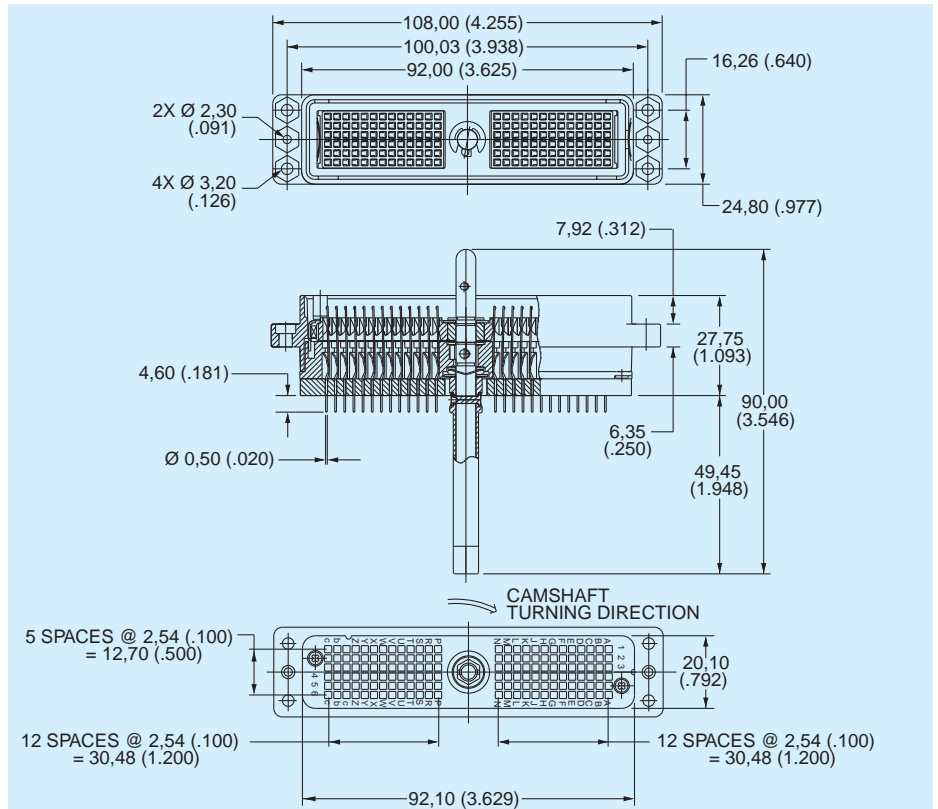
Plug

DLM1, DLM1, DLM1

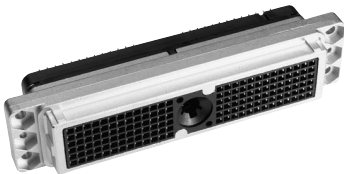


- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 60.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature
127050-0207	DLM1-156PC

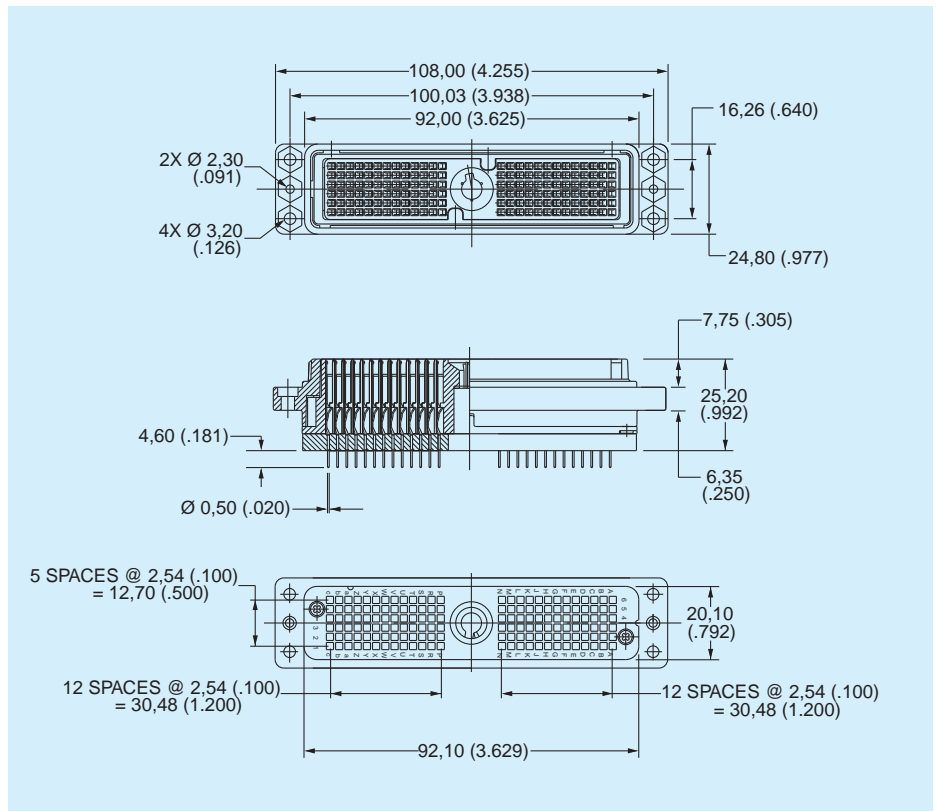


Receptacle



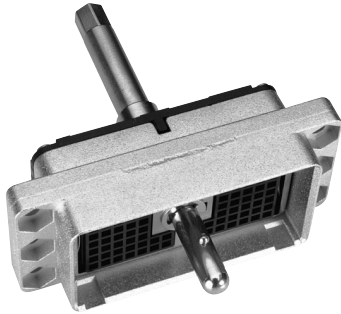
- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 60.

Part Number	Nomenclature
127050-0211	DLM1-156RC



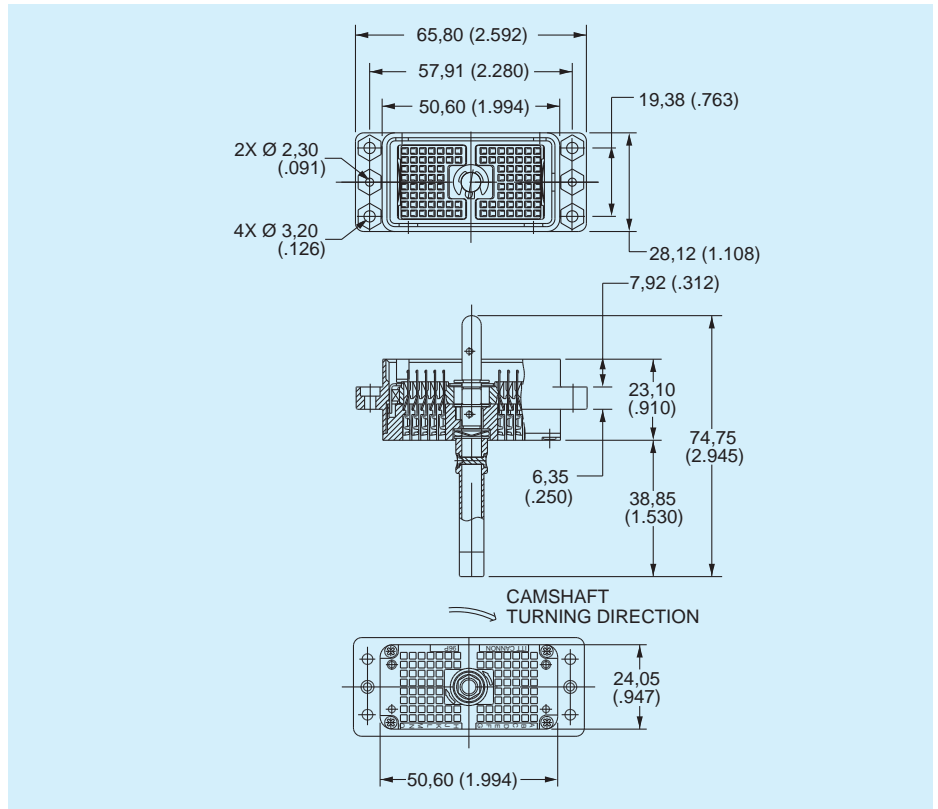
DLM2 — Metal Body — 96 Pin Connectors — Crimp Contacts

Plug



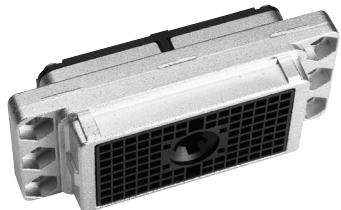
- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- Crimp contacts are to be ordered separately and installed by customer, see pages 52-53.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature
127050-0212	DLM2-96P



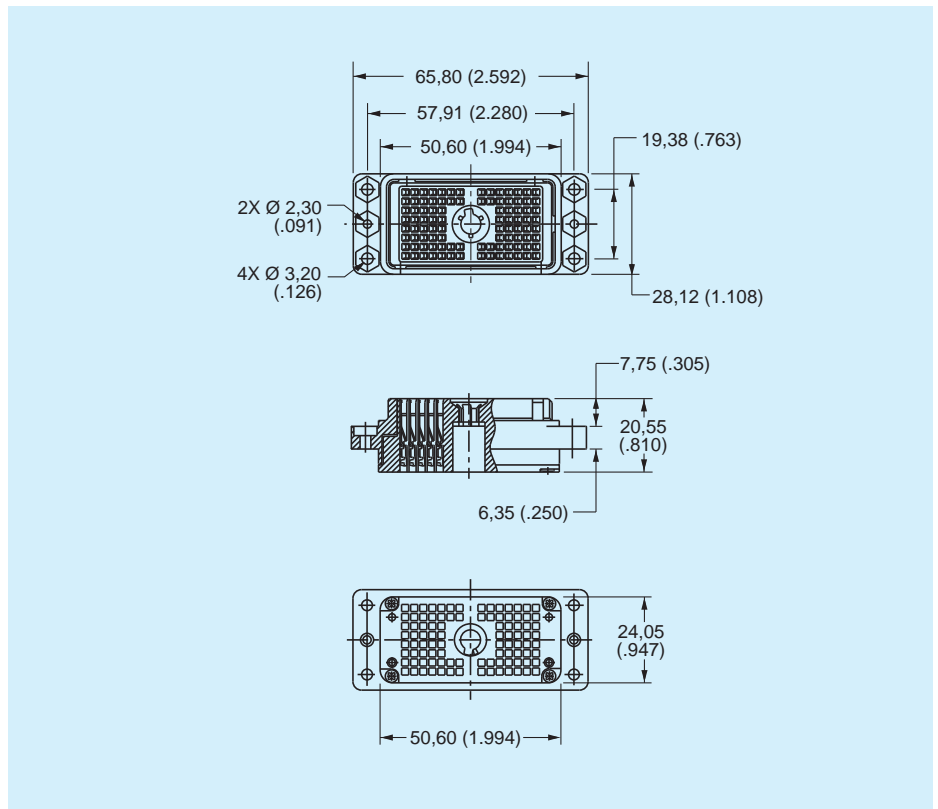
DL2, DLM2, DLD2

Receptacle



- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- Crimp contacts are to be ordered separately and installed by customer, see pages 52-53.

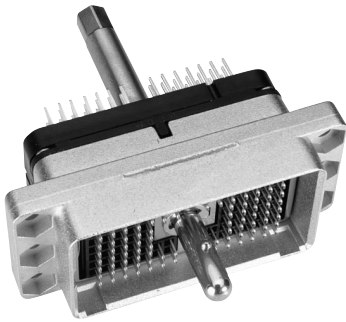
Part Number	Nomenclature
127050-0216	DLM2-96R





DLM2 — Metal Body — 96 Pin Connectors — Square Post Contacts

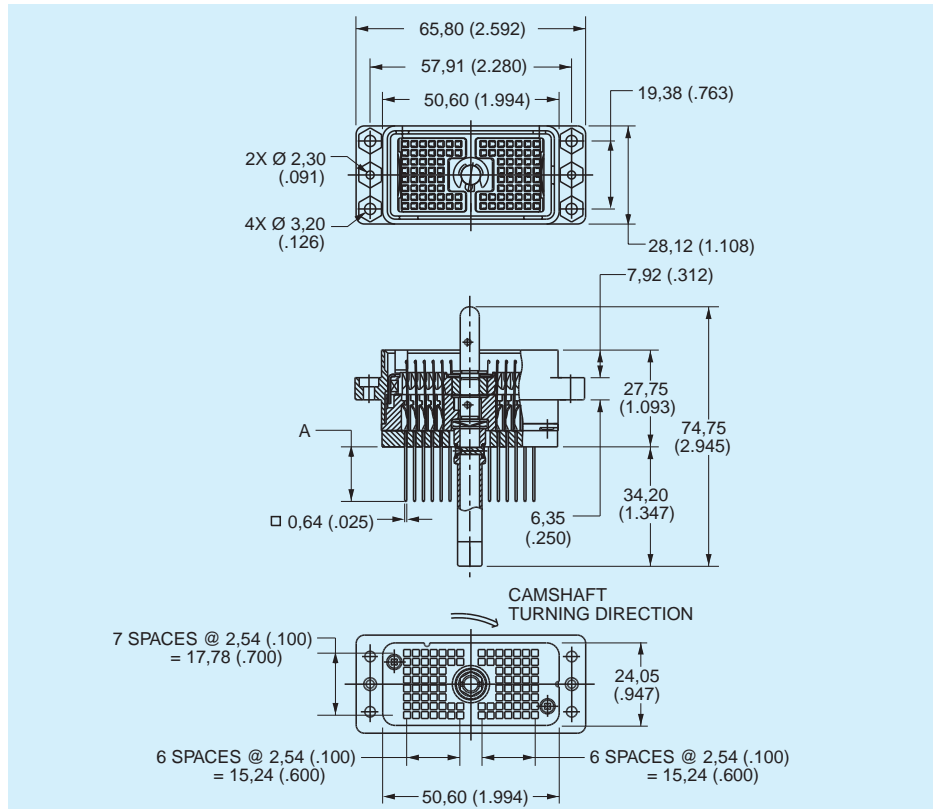
Plug



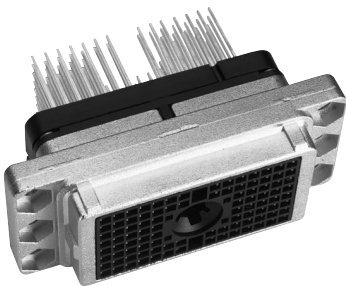
DLM2, DLM2, DLM2

- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 61.
- Front Removable 0,64 (.025) Square Posts 2,54 (.100) Centers.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature	A
112136-0001	DLM2-96PW4A	15,37 (.605)
112136-0000	DLM2-96PW6A	7,11 (.280)
112136-0002	DLM112136-2	3,18 (.125)

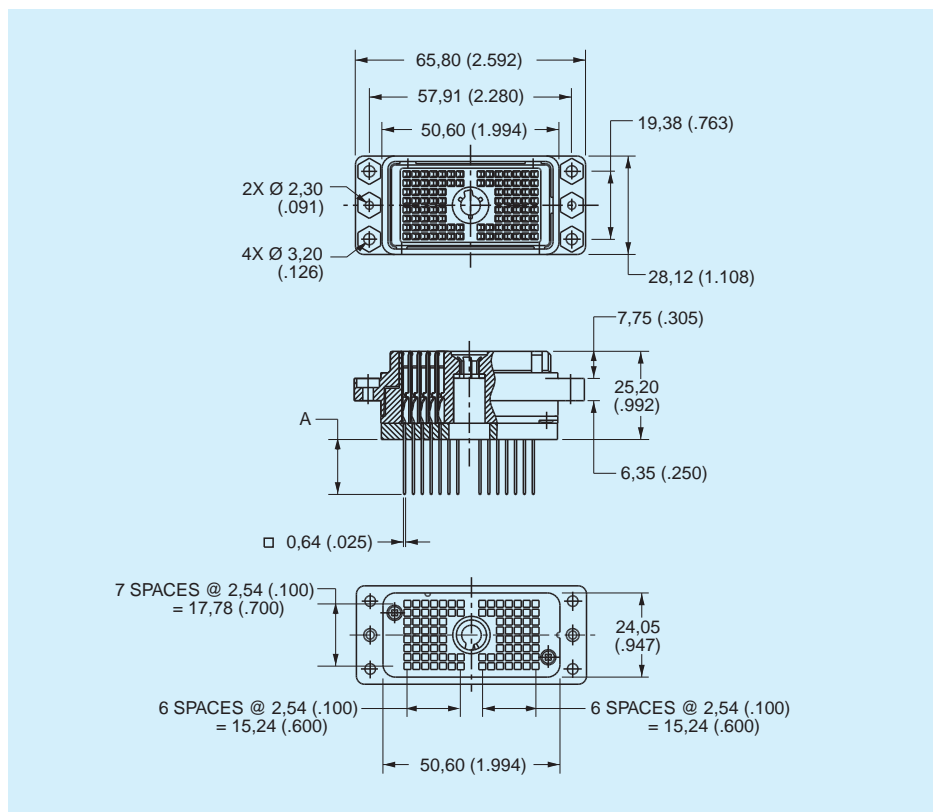


Receptacle



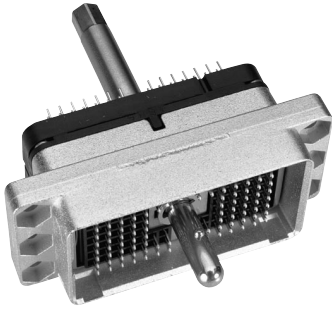
- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 61.
- Front Removable 0,64 (.025) Square Posts 2,54 (.100) Centers.

Part Number	Nomenclature	A
112137-0001	DLM2-96RW4B	15,37 (.605)
112137-0000	DLM2-96RW6B	7,11 (.280)
112137-0002	DLM112137-2	3,18 (.125)



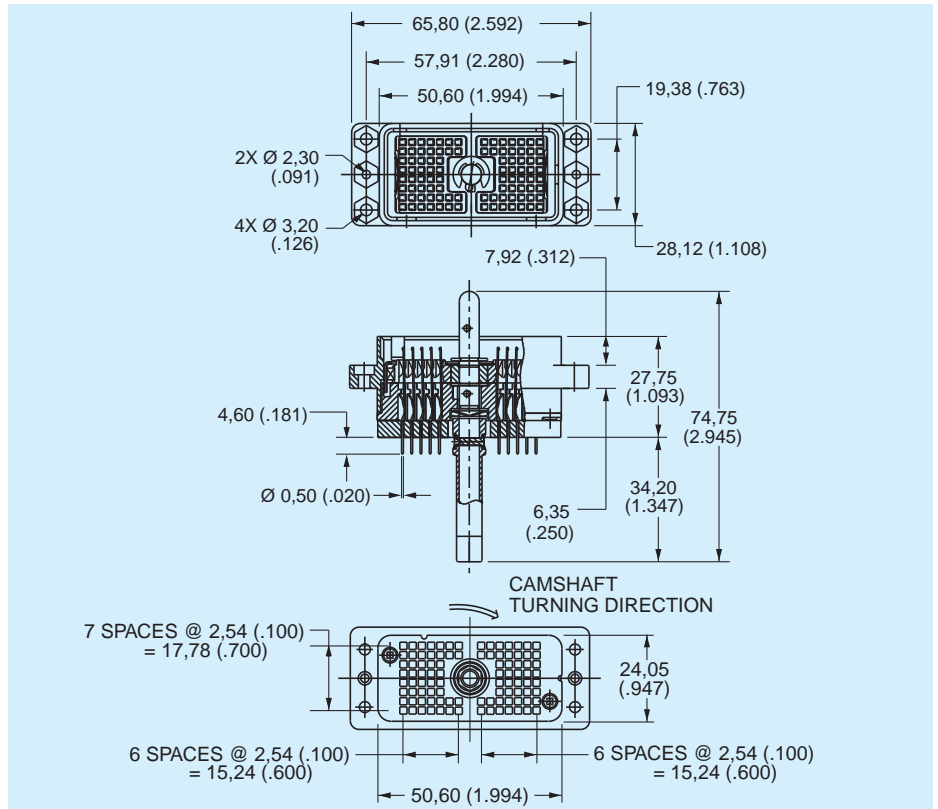
DLM2 — Metal Body — 96 Pin Connectors — PC/RC Contacts

Plug



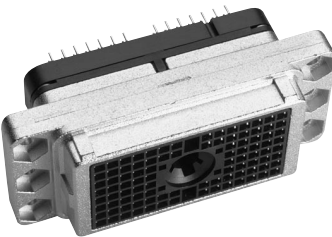
- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 61.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature
127050-0215	DLM2-96PC



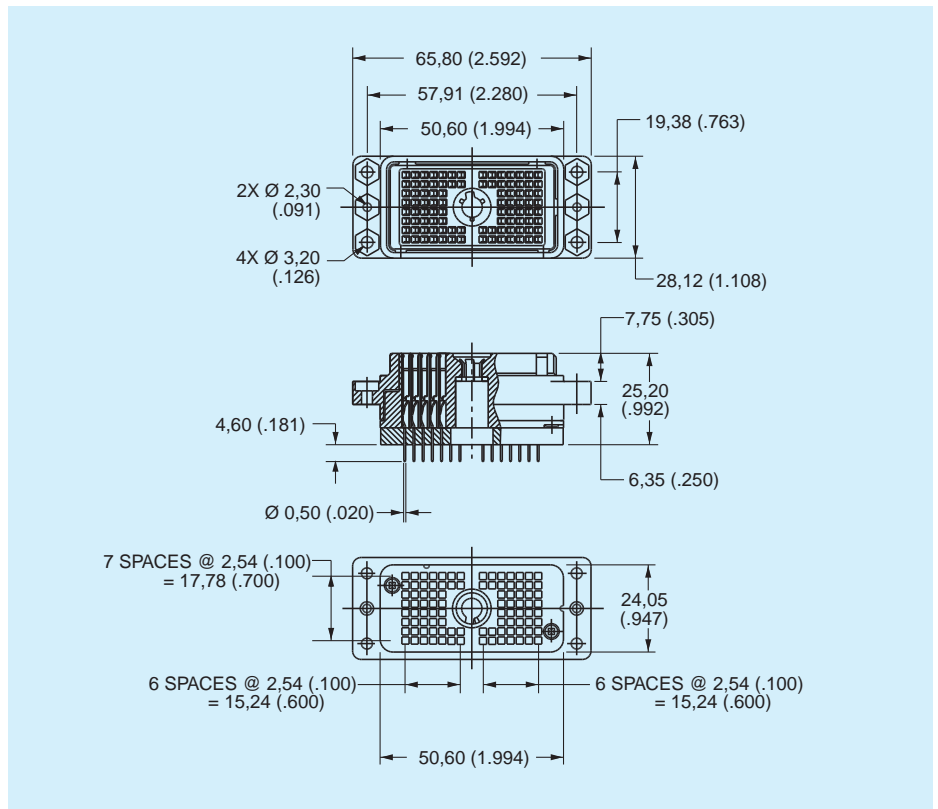
DL2, DLM2, DLD2

Receptacle



- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 61.

Part Number	Nomenclature
127050-0219	DLM2-96RC

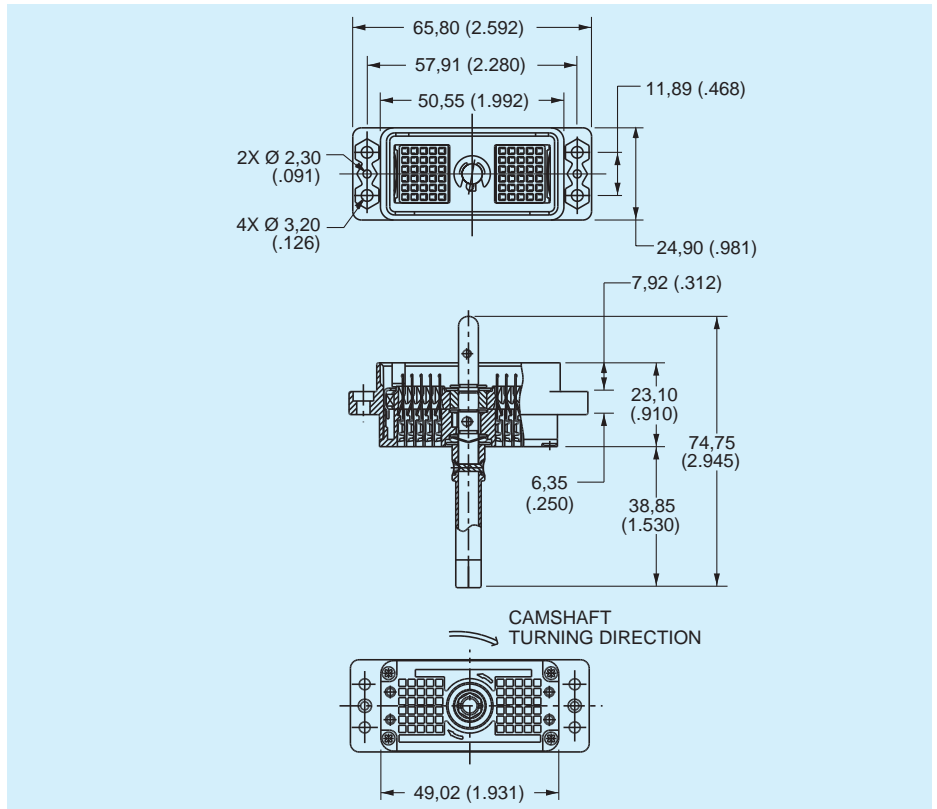


DLM3 — Metal Body — 60 Pin Connectors — Crimp Contacts

Plug

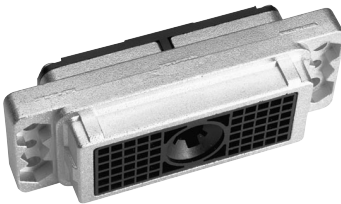


- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- Crimp contacts are to be ordered separately and installed by customer, see pages 52-53.
- Order actuating handle kit separately, see page 47.

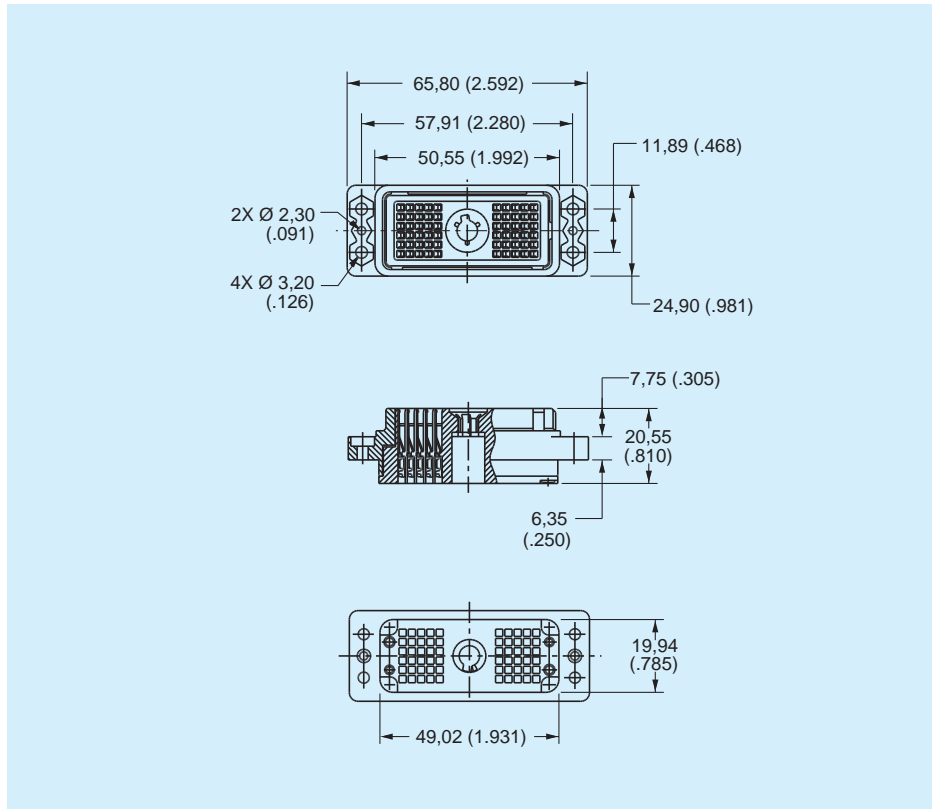


Part Number	Nomenclature
127050-0220	DLM3-60P

Receptacle



- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- Crimp contacts are to be ordered separately and installed by customer, see pages 52-53.

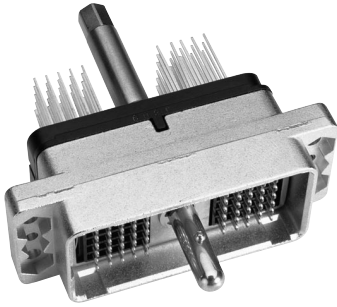


Part Number	Nomenclature
127050-0224	DLM3-60R

DLM3, DLM3

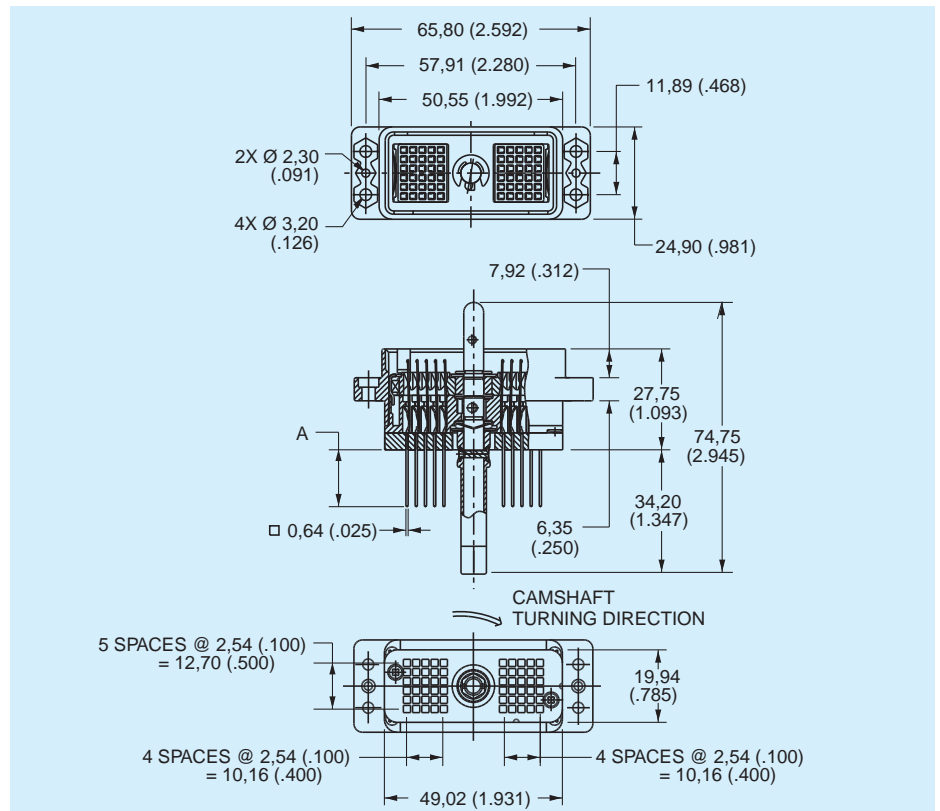
DLM3 — Metal Body — 60 Pin Connectors — Square Post Contacts

Plug



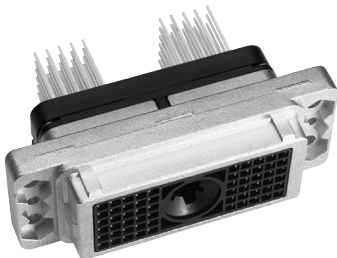
- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 62.
- Front Removable 0,64 (.025) Square Posts 2,54 (.100) Centers.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature	A
112138-0001	DLM3-60PW4A	15,37 (.605)
112138-0000	DLM3-60PW6A	7,11 (.280)
112138-0002	DLM112138-2	3,18 (.125)



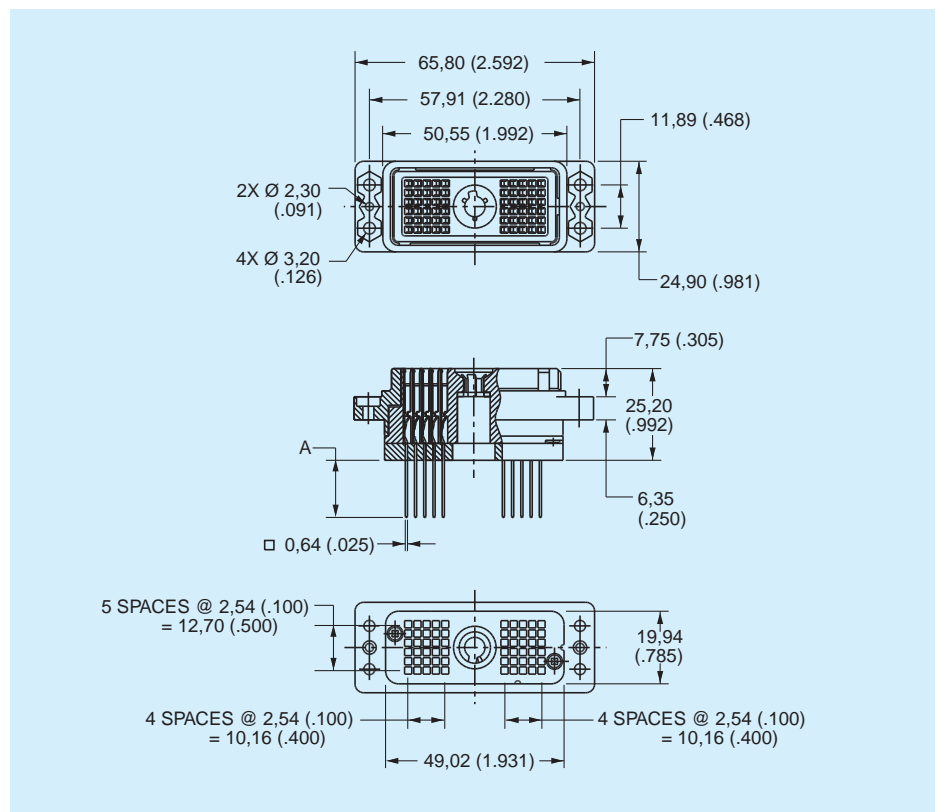
DLM3, DLM3

Receptacle



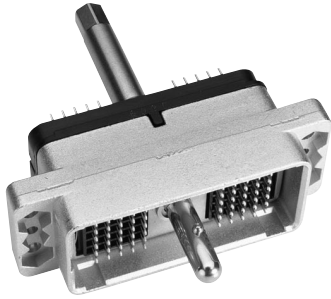
- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 62.
- Front Removable 0,64 (.025) Square Posts 2,54 (.100) Centers.

Part Number	Nomenclature	A
112139-0001	DLM3-60RW4B	15,37 (.605)
112139-0000	DLM3-60RW6B	7,11 (.280)
112139-0002	DLM112139-2	3,18 (.125)

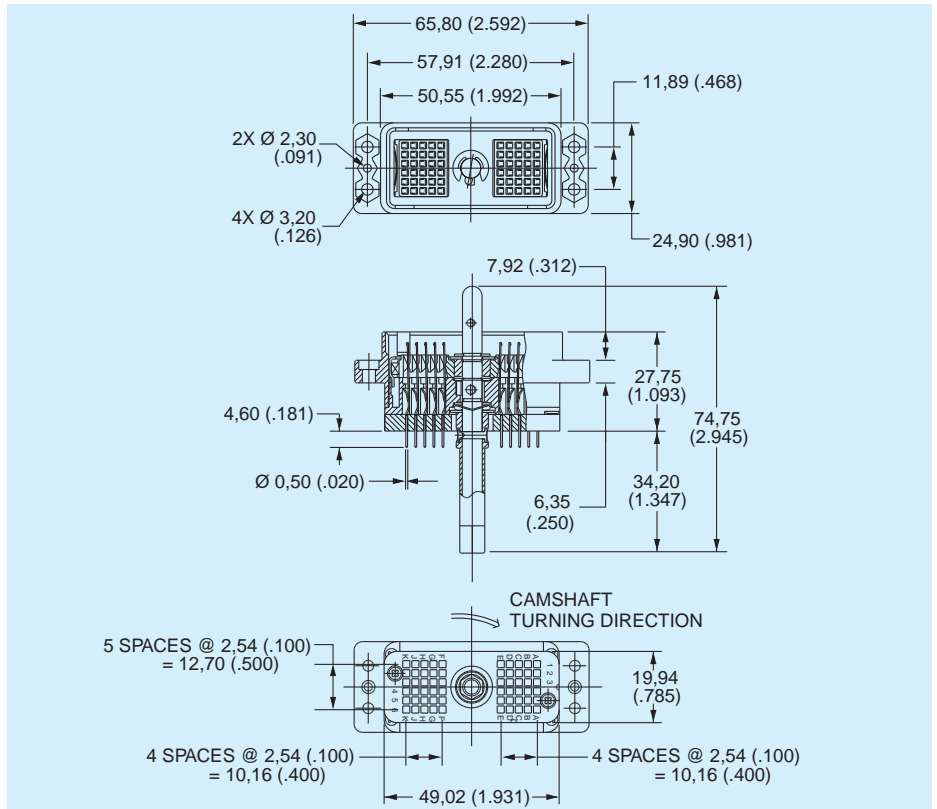


DLM3 — Metal Body — 60 Pin Connectors — PC/RC Contacts

Plug



- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 62.
- Order actuating handle kit separately, see page 47.

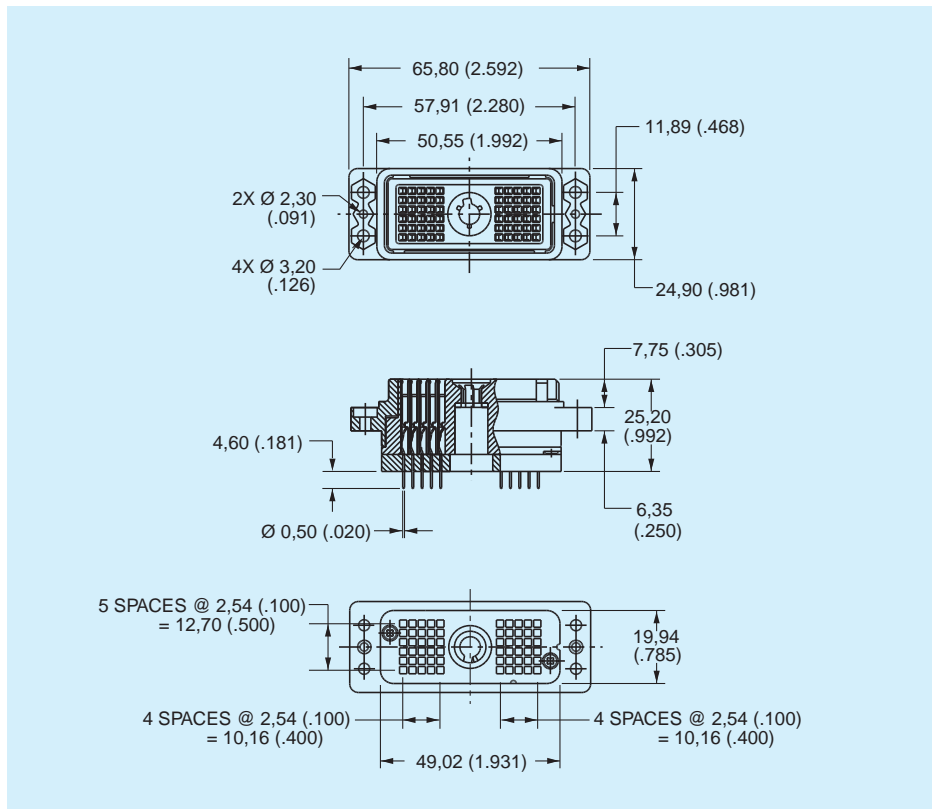


Part Number	Nomenclature
127050-0223	DLM3-60PC

Receptacle



- For contact cavity arrangement, see page 68.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 62.



Part Number	Nomenclature
127050-0227	DLM3-60RC

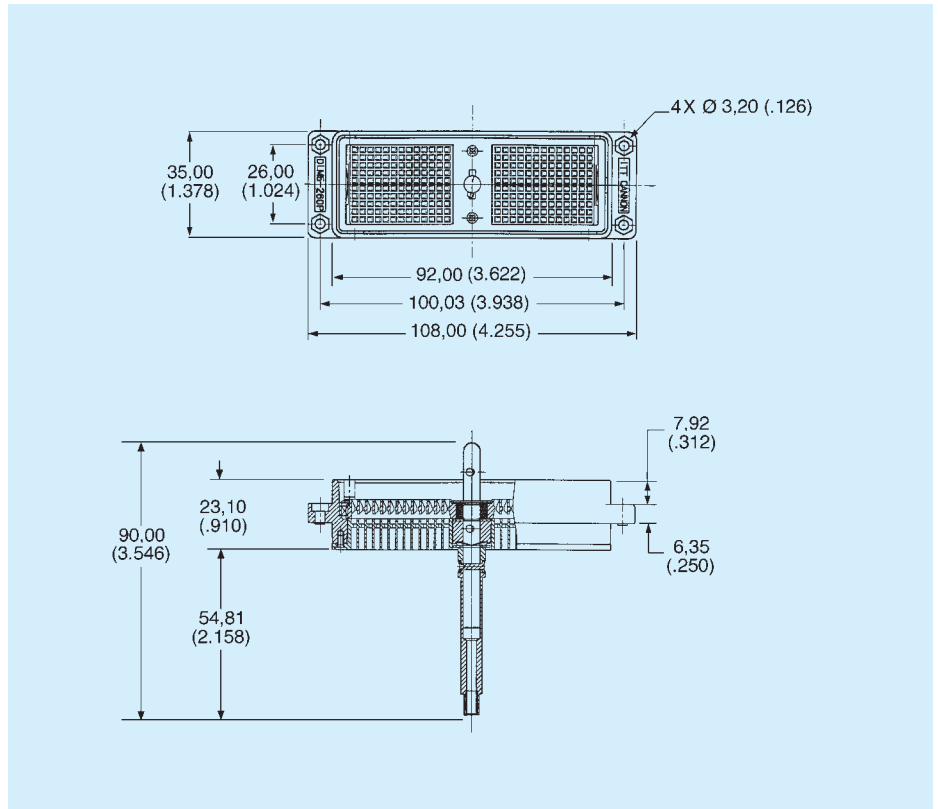
DLM5 — Metal Body — 260 Pin Connectors — Crimp Contacts

Plug



- For contact cavity arrangement, see page 69.
- For panel cutout and mounting hole pattern, see page 65.
- Crimp contacts are to be ordered separately and installed by customer, see pages 52-53.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature
127050-0109	DLM5-260P

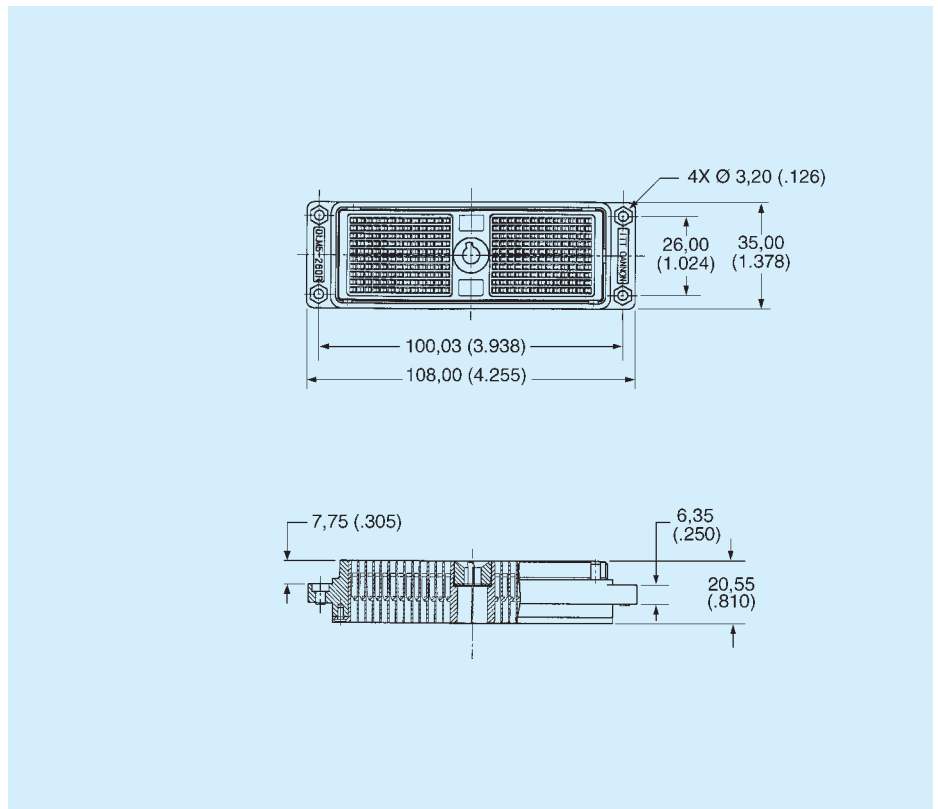


Receptacle



- For contact cavity arrangement, see page 69.
- For panel cutout and mounting hole pattern, see page 65.
- Crimp contacts are to be ordered separately and installed by customer, see pages 52-53.

Part Number	Nomenclature
127050-0110	DLM5-260R



DLM5, DLM5

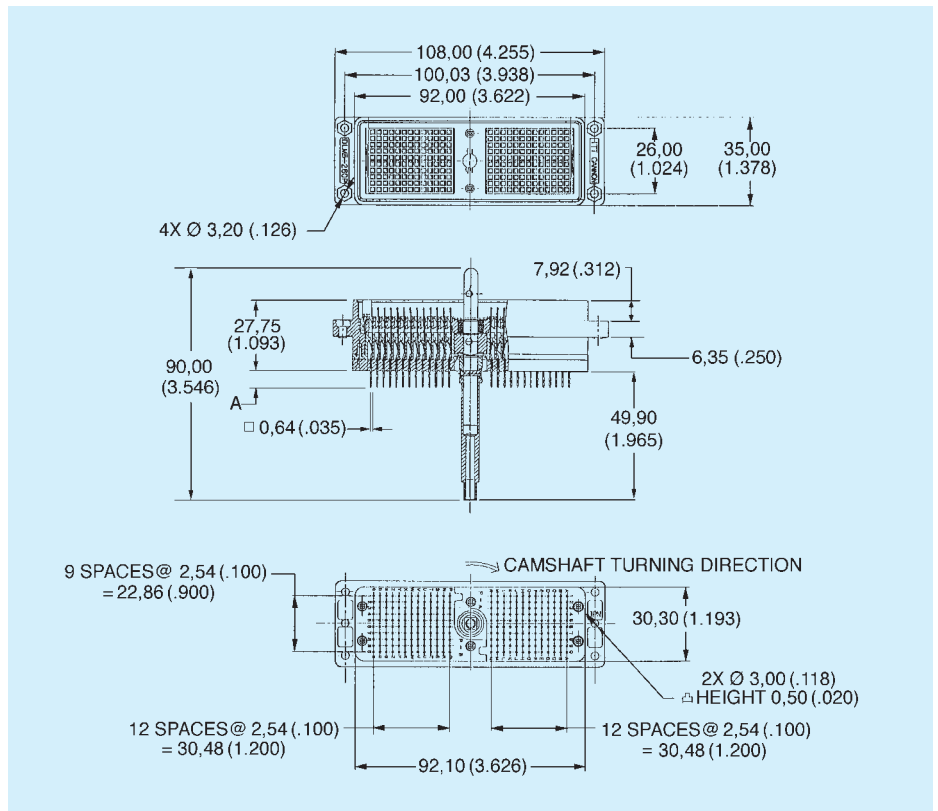
DLM5 — Metal Body — 260 Pin Connectors — Square Post Contacts

Plug



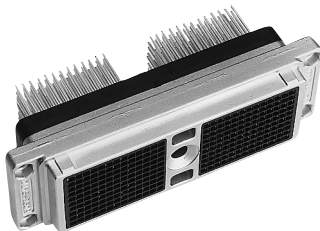
- For contact cavity arrangement, see page 69.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 62.
- Front Removable 0,64 (.025) Square Posts 2,54 (.100) Centers.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature	A
112086-0002	DLM5-260PW4A	15,37 (.605)
112086-0000	DLM5-260PW6A	7,11 (.280)
112086-0003	DLM112086-3	3,18 (.125)



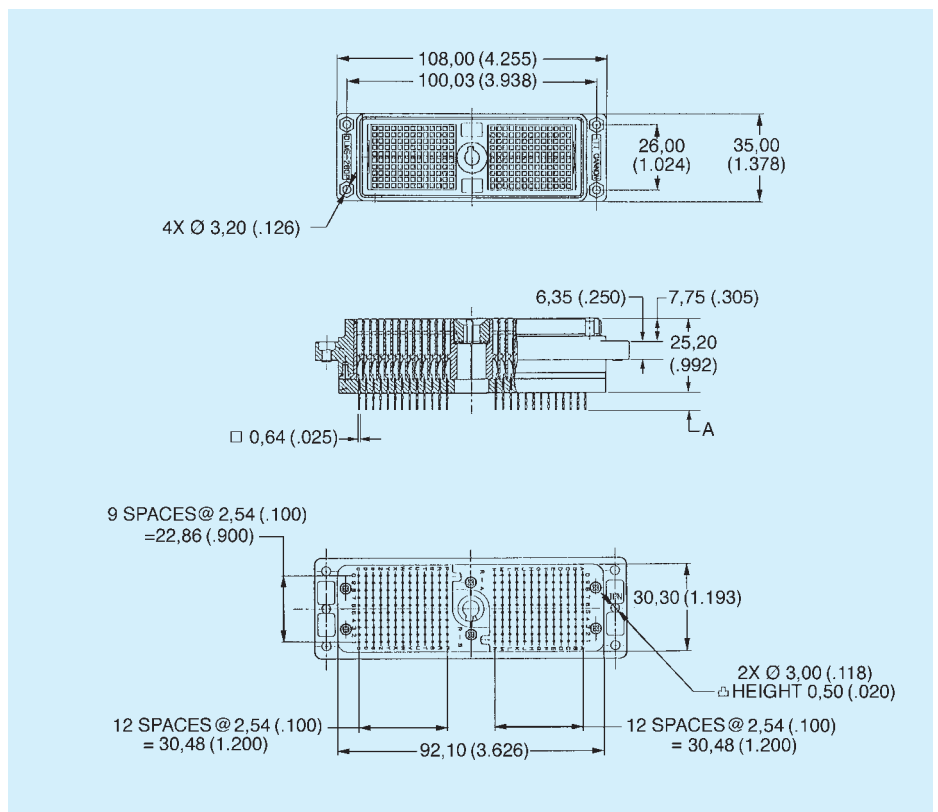
DLM5, DLM5

Receptacle



- For contact cavity arrangement, see page 69.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 62.
- Front Removable 0,64 (.025) Square Posts 2,54 (.100) Centers.

Part Number	Nomenclature	A
112087-0001	DLM5-260RW4B	15,37 (.605)
112087-0000	DLM5-260RW6B	7,11 (.280)
112087-0003	DLM112087-3	3,18 (.125)



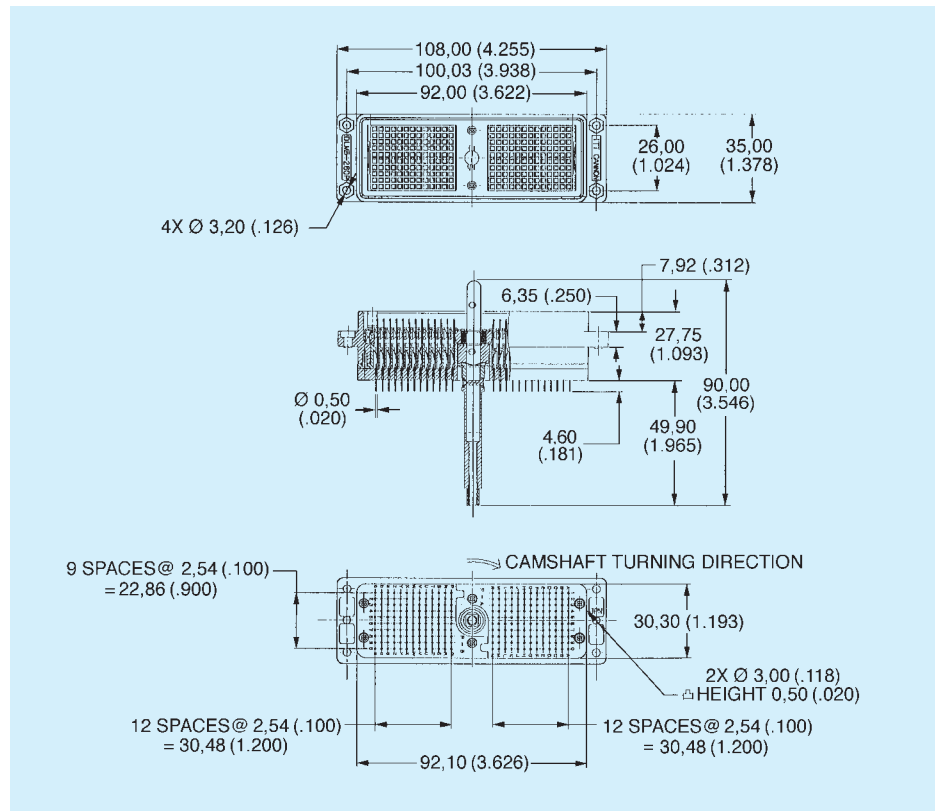
DLM5 — Metal Body — 260 Pin Connectors — PC/RC Contacts

Plug



- For contact cavity arrangement, see page 69.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 62.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature
127050-0111	DLM5-260PC

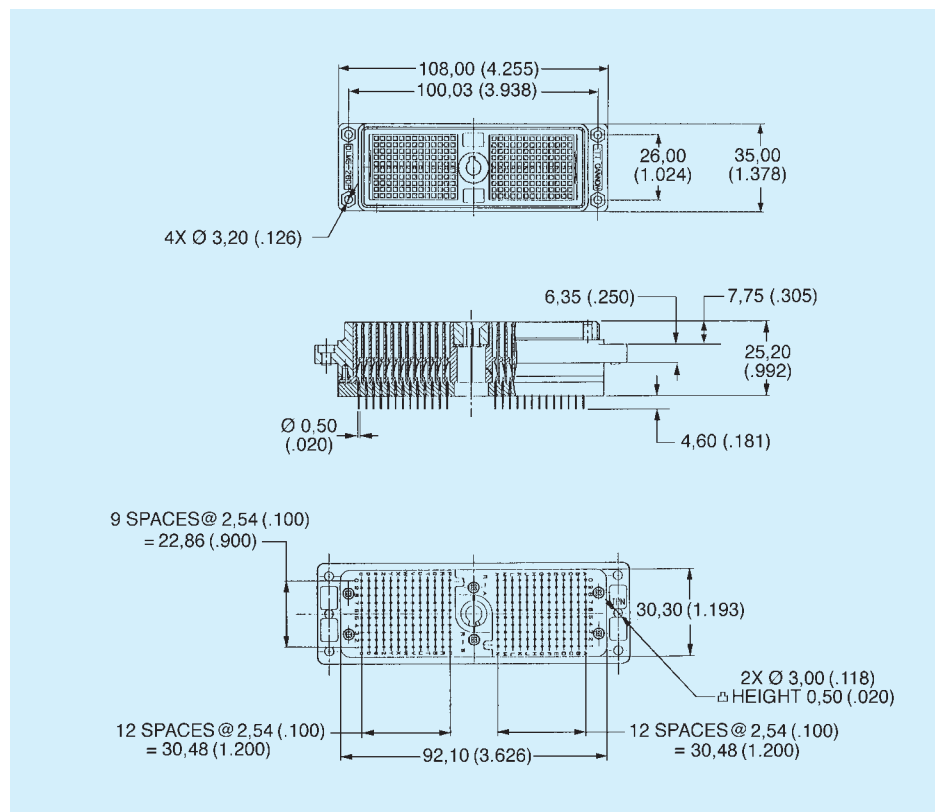


Receptacle



- For contact cavity arrangement, see page 69.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 62.

Part Number	Nomenclature
127050-0112	DLM5-260RC

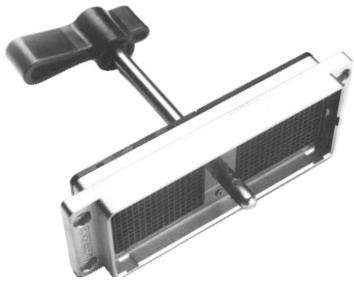


DLM5, DLM5



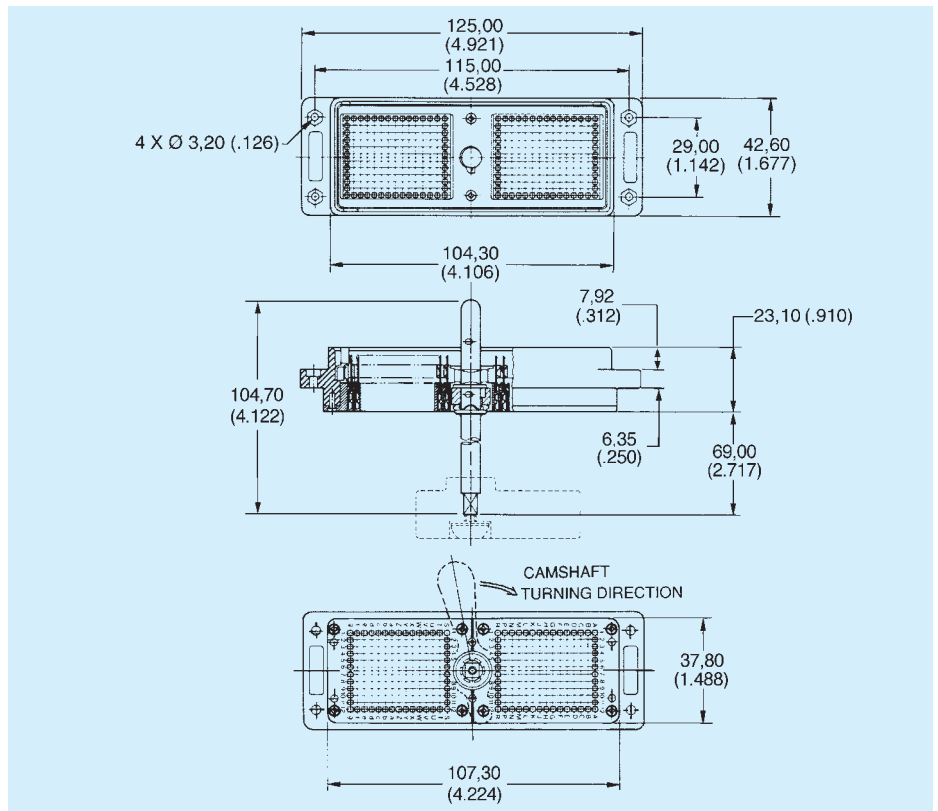
DLM6 — Metal Body — 360 Pin Connectors — Crimp Contacts

Plug



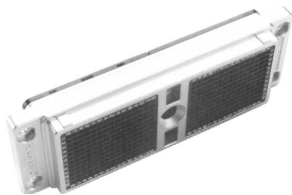
- For contact cavity arrangement, see page 69.
- For panel cutout and mounting hole pattern, see page 65.
- Crimp contacts are to be ordered separately and installed by customer, see pages 52-53.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature
127050-0034	DLM6-360P



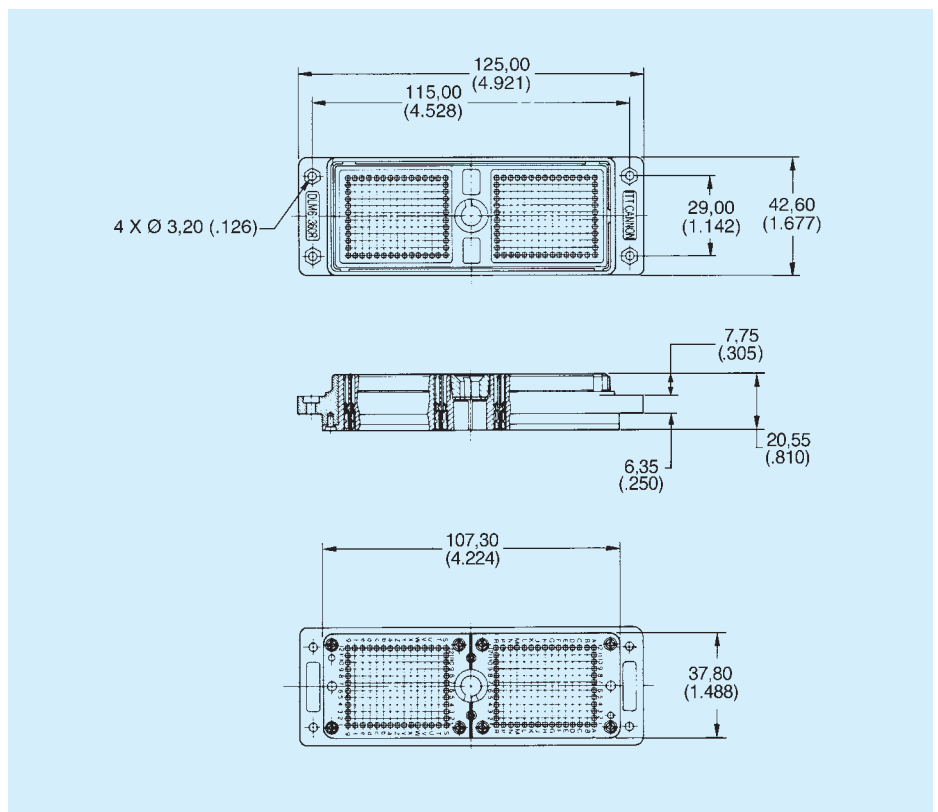
Receptacle

DLM6



- For contact cavity arrangement, see page 69.
- For panel cutout and mounting hole pattern, see page 65.
- Crimp contacts are to be ordered separately and installed by customer, see pages 52-53.

Part Number	Nomenclature
127050-0045	DLM6-360R



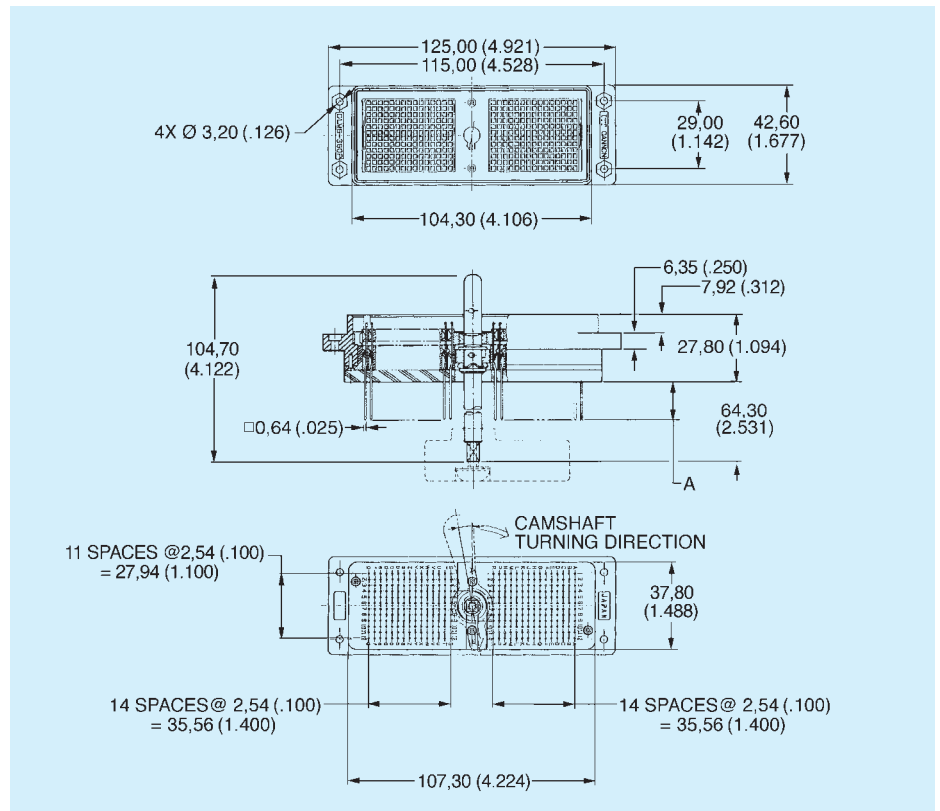
DLM6 — Metal Body — 360 Pin Connectors — Square Post Contacts

Plug

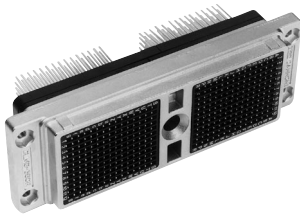


- For contact cavity arrangement, see page 69.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 63.
- Front Removable 0,64 (.025) Square Posts 2,54 (.100) Centers.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature	A
111995-0001	DLM6-360PW4A	15,37 (.605)
111995-0000	DLM6-360PW6A	7,11 (.280)
111995-0007	DLM111995-7	3,18 (.125)

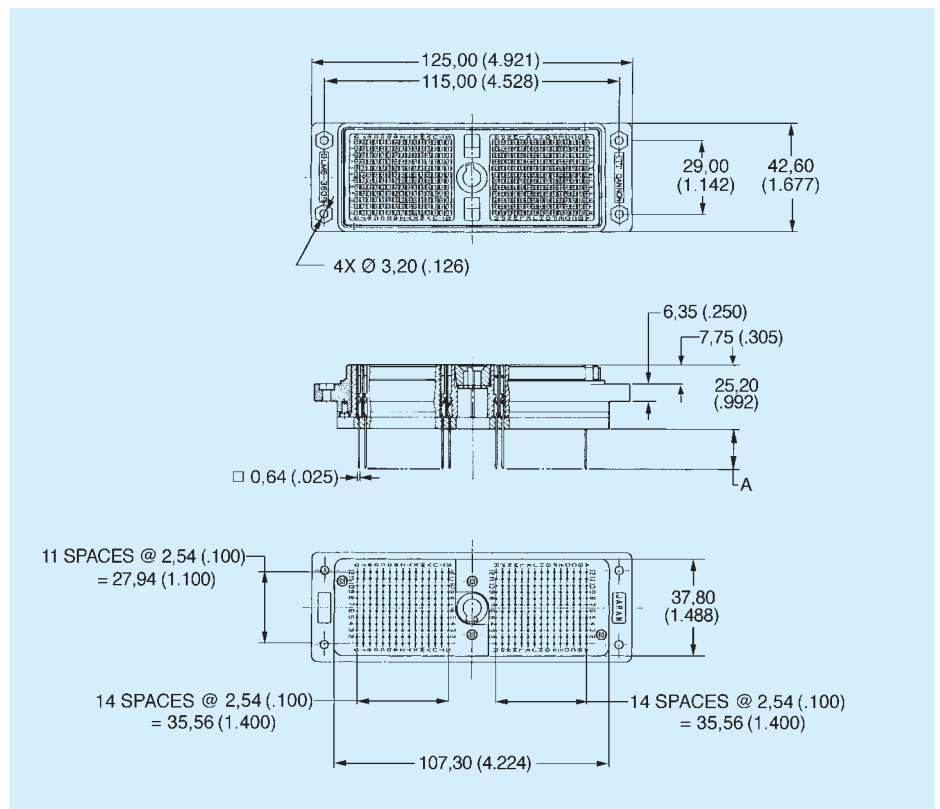


Receptacle



- For contact cavity arrangement, see page 69.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 63.
- Front Removable 0,64 (.025) Square Posts 2,54 (.100) Centers.

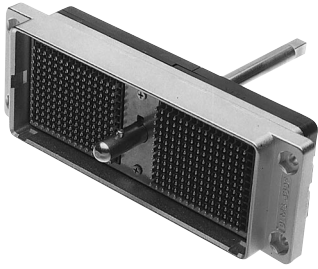
Part Number	Nomenclature	A
111996-0000	DLM6-360RW4B	15,37 (.605)
111996-0001	DLM6-360RW6B	7,11 (.280)
111996-0005	DLM111996-5	3,18 (.125)



DLM6

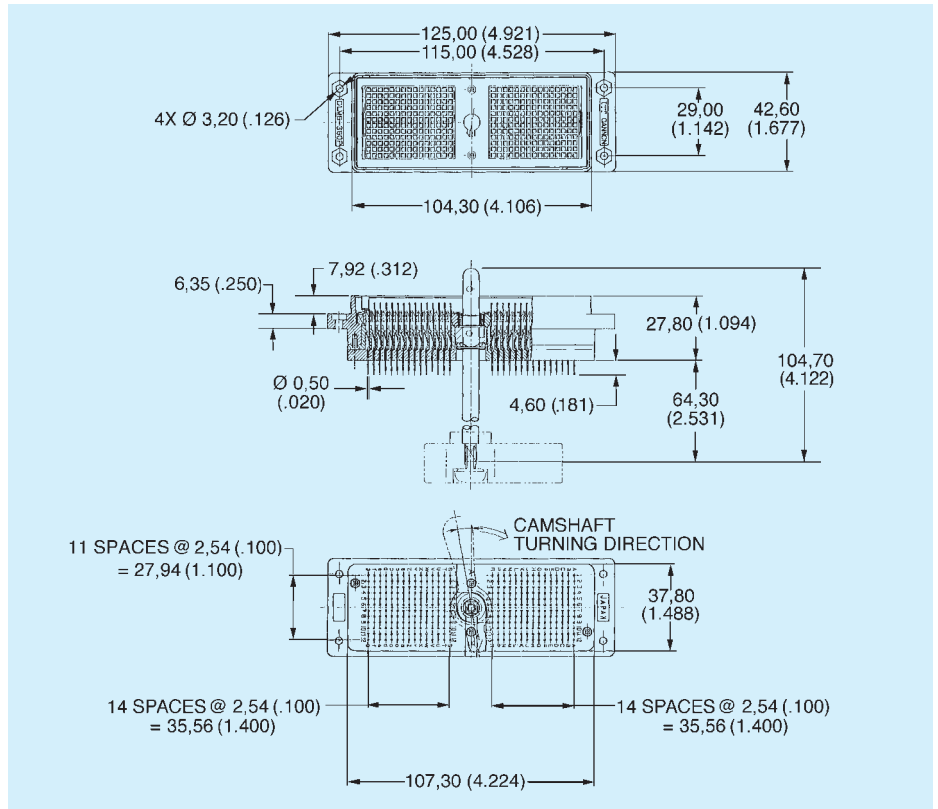
DLM6 — Metal Body — 360 Pin Connectors — PC/RC Contacts

Plug

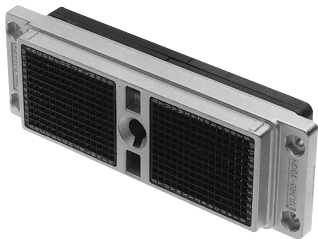


- For contact cavity arrangement, see page 69.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 63.
- Order actuating handle kit separately, see page 47.

Part Number	Nomenclature
127050-0097	DLM6-360PC

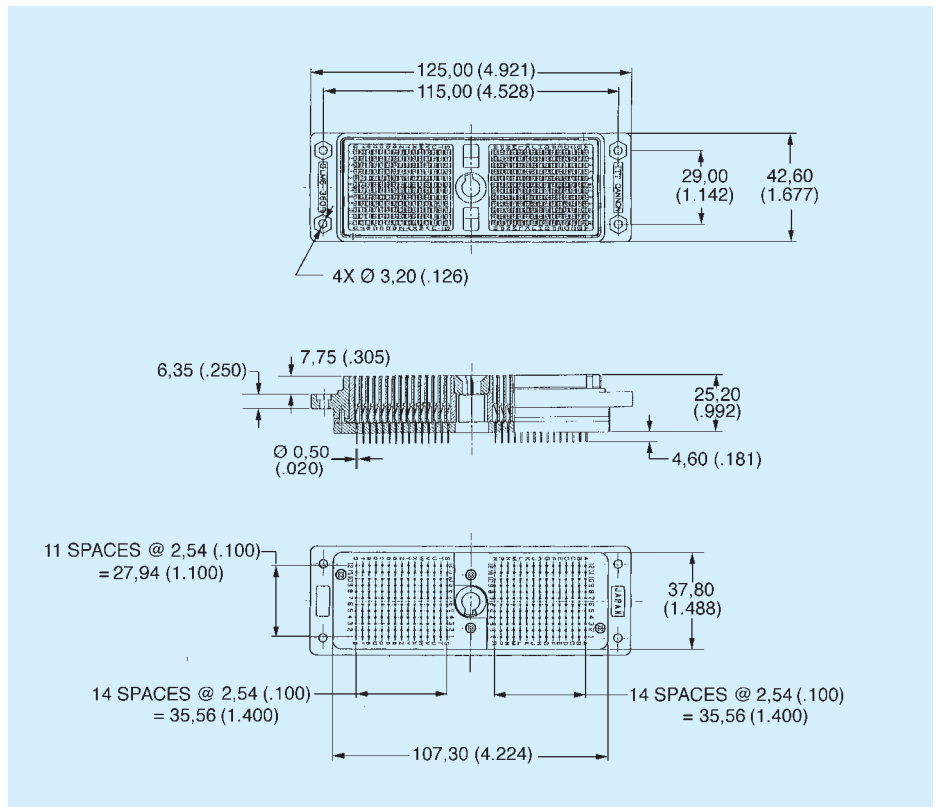


Receptacle



- For contact cavity arrangement, see page 69.
- For panel cutout and mounting hole pattern, see page 65.
- For PC hole pattern, see page 63.

Part Number	Nomenclature
127050-0098	DLM6-360RC



DLM6