

GMM SERIES

■ Introduction

- The GMM series connectors are available in all-mold housings.
- The GMM-A connectors are available in all-mold housings and have steel shells on the mating side, which is effective for prevention of EMI from outside and electrostatic noise
- All connectors are of the right angle type and are designed for mounting on printed-circuit boards, featuring low cost, high performance and high density connection
- Combination of these connectors with the GM, GMP or GMC connectors and accessories provide a wide variety of packaging modes. These are internationally accepted connectors.
- Packaging these connectors on PC boards allows interfacing with outside circuits by using the connector with ease.

■ Electrical Data

Item	Performance
Rated current	1 A
Rated voltage	300 V AC
Withstand voltage	1,000 V AC (RMS), one minute
Insulation resistance	5,000 MΩ or more at 500 V DC
Contact resistance	20 mΩ or less

■ Material and Finish

Contact	Phosphor bronze	Gold plating over nickel
Housing	Glass-filled PBT resin	Color: black, UL94V-0

■ Features

- **Economy**
 1. Low cost enabled by use of all-mold housing.
 2. Mounting labor can be reduced by using the earth lock pin.
- **High performance**
 1. GMM-A is designed against electrostatic noise.
 2. Connection can be made securely, since the pin mounting hole in a closed entry type.
 3. The press formed contactor assures stable contact.
 4. The insulator is of the self-quenching type authorized by UL.
- **Ease of mounting**
 1. Use of a lock pin reduces labor for PC board mounting.
 2. Can be fixed with ordinary screws.
 3. Can be easily mounted on the PC board because the connector and bracket are integrated into a monoblock body.
 4. No accidental shorting with other components because the terminal is has a molded cover.
 5. Can be mounted on a pattern because of the all-mold design.

■ Ordering Information

GMM-A25HUGDFDA1

① ② ③ ④ ⑤ ⑥ ⑦

① Series Prefix

② Plating on Shell and Mounting Hole Shape

Blank: No shell

A: Chromate coating over zinc plating

C: Nickel plating

G: Tin plating

W: Without shell; mounting hole screws recessed

X: Shell plated with tin; mounting hole screws recessed

U: Without shell; four holes for PC board mounting

V: X type; with four holes for PC board mounting

Y: Plated with tin; shell and earth metal are integrated in a monoblock body.

③ Number of Contacts

9, 15, 25, 37, 50

④ Accessories 1 (screw lock, spring lock, etc.)

R: Metal fitting (M2.6 × 0.45)

RU: Metal fitting (No. 4-40UNC)

H: Hexagon metal fitting (M2.6 × 0.45) } For front

HU: Hexagon metal fitting (No. 4-40UNC) } Panel

HV: Hexagon metal fitting (M3 × 0.5) } mounting

Y: Hexagon metal fitting (M2.6 × 0.45) } For rear panel

YU: Hexagon metal fitting (No. 4-40UNC) } mounting,

YV: Hexagon metal fitting (M3 × 0.5) } panel thickness 0.8mm

J: Hexagon metal fitting (M2.6 × 0.45) } For rear panel

JU: Hexagon metal fitting (No. 4-40UNC) } mounting, panel

JV: Hexagon metal fitting (M3 × 0.5) } thickness 1.6mm

S: Spring lock

U: Recessed screw (No. 4-40UNC)

⑤ Accessories 2 (earth metal fitting, lock pin, etc.)

G: Earth metal (both holes 3.2mm in dia.)

GA: Earth metal (connector mounting side 3.2mm in dia., board mounting side M2.6 × 0.45)

GB: Earth metal (connector mounting side 3.2mm in dia., board mounting side M3 × 0.5)

GD: Earth lock pin

*: GA is for FDA, MDA, and GB are for FDB and MDB.

⑥ Connector Terminal Style

MDA: Right angle DIP A size male connector

MDB: Right angle DIP B size male connector

FDA: Right angle DIP A size female connector

FDB: Right angle DIP B size female connector

⑦ Plating on Contact

Blank: All gold plating 0.3μm

1: Partial gold plating (contact portion Au 0.3μm, DIP portion Sn 3μm)

2: Partial gold plating (contact portion Au 0.76μm, DIP portion Sn 3μm)

TYPE

Male connector

Female connector

All mold type A size

All mold type B size

A size connector with shell

B size connector with shell

All mold A size female connectorGMM- ()FDA

All mold B size male connectorGMM- ()MDB

A size male connector with shell with chromate coating over zinc plating ...GMM-A()MDA
 A size female connector with shell with chromate coating over zinc plating ..GMM-A()FDA
 A size male connector with nickel plated shellGMM-C()MDA
 A size female connector with nickel plated shellGMM-C()FDA
 A size male connector with tin plated shellGMM-G()MDA
 A size female connector with tin plated shellGMM-G()FDA
 A size male connector with recessed screw shellGMM-X()UMDA
 A size female connector with recessed screw shellGMM-X()UFDA
 B size male connector with shell with chromate coating over zinc plating ...GMM-A()MDB
 B size female connector with shell with chromate coating over zinc platingGMM-A()FDB
 B size male connector with nickel plated shellGMM-C()MDB
 B size female connector with nickel plated shellGMM-C()FDB
 B size male connector with tin plated shellGMM-G()MDB
 B size female connector with tin plated shellGMM-G()FDB
 B size male connector with recessed screw shellGMM-X()UMDB
 B size female connector with recessed screw shellGMM-X()UFDB

Earth Lock Pin (DIP Type)/Earth Metal (Screw Fixing Type)

● Earth lock pin (DIP type)



● Earth metal (screw fixing type)



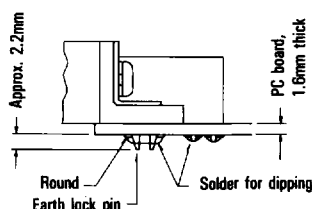
Applicable connector	Part No.	Remarks
A size	GMM-25GD	For all contacts
B size	GMM-A25GD	For 9,15,25,37 contacts
	GMM-A50GD	For 50 contacts

Part No.	Remarks
GMM-25G	For 9,15,25,37 contacts
GMM-50G	For 50 contacts

Mounting on PC Board

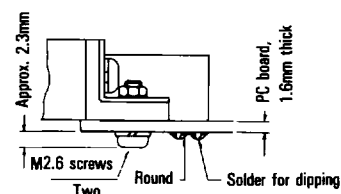
● With earth lock pin

Insert a connector into which the lock pin is press fitted into a PC board and solder the connector terminal and the lock pin to the PC board simultaneously for dipping.

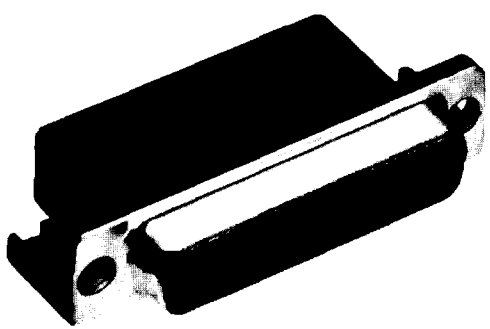
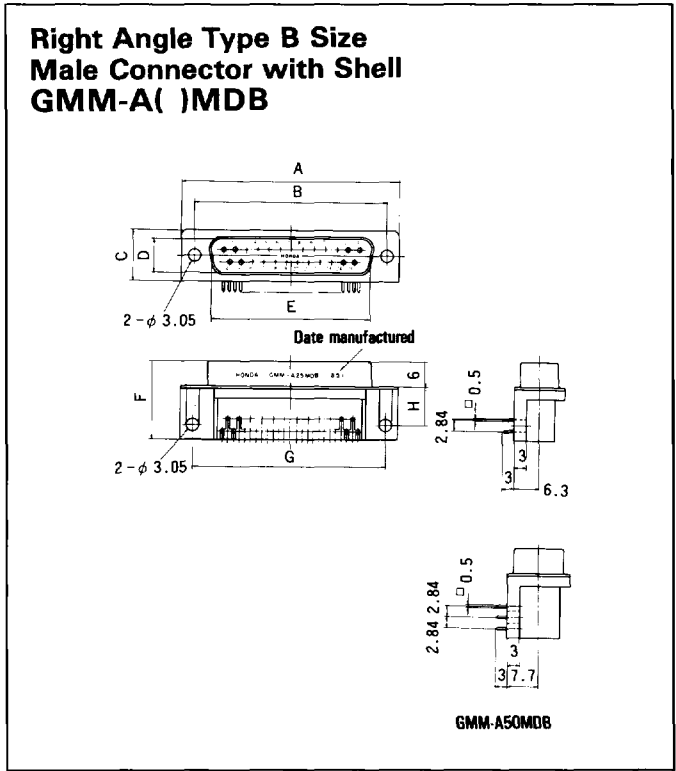
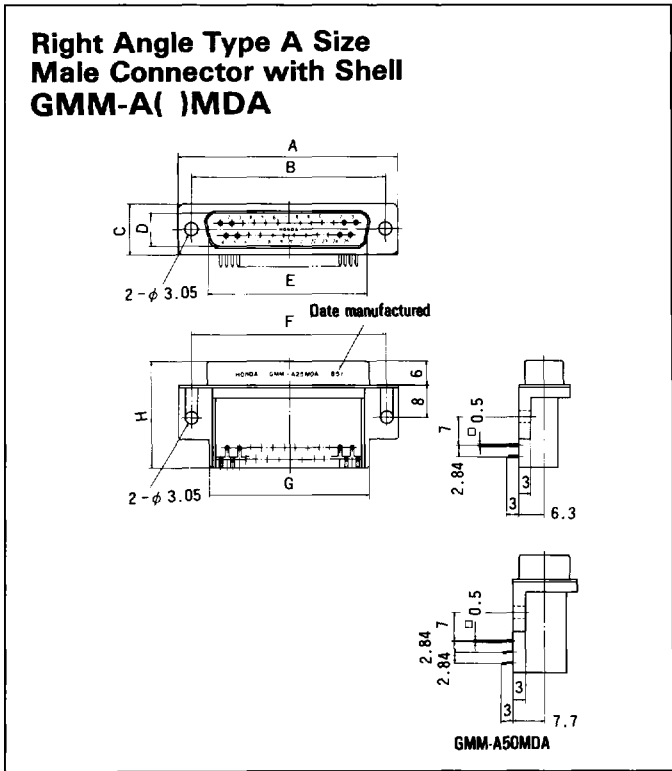
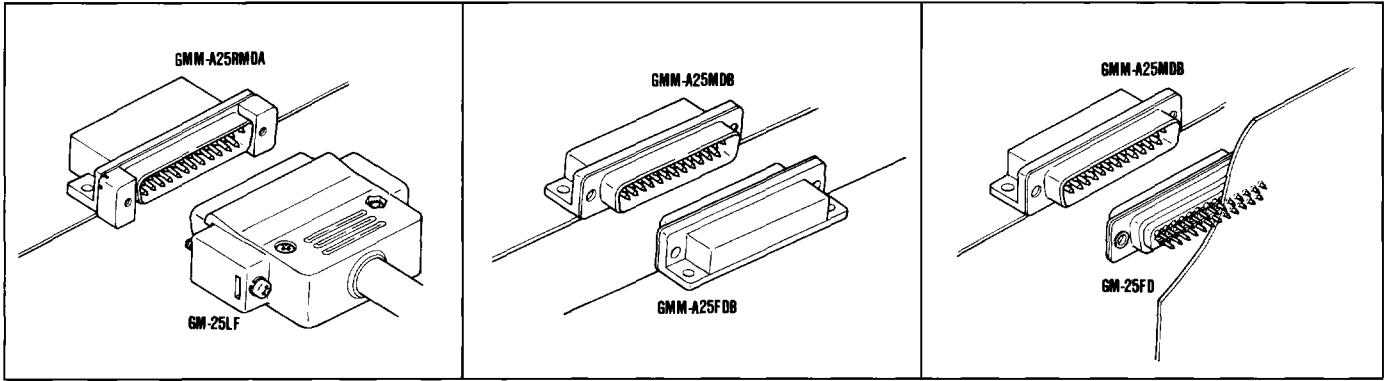


● With earth metal

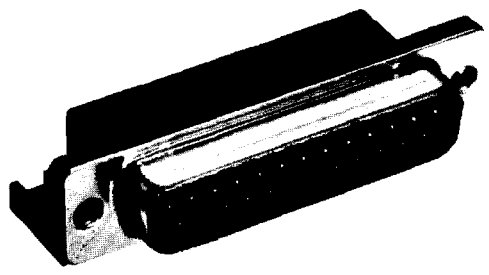
After inserting a connector into the PC board and tightening the screw, solder the connector terminal to the PC board for dipping.



MALE CONNECTOR WITH SHELL



GMM-A25MDA



GMM-A25MDB

● Outside Dimensions

Part No.	A	B	C	D	E	F	G	H
* GMM-A9MDA	30.8	24.99	12.6	8.34	16.9	24.99	15.6	25.9
* GMM-A15MDA	39.1	33.32			25.24	33.32	24	
GMM-A25MDA	53.0	47.04			39.01	47.04	38	
* GMM-A37MDA	69.3	63.50			55.47	63.50	54.4	
* GMM-A50MDA	66.9	61.11	15.4	11.13	52.85	61.11	51.8	28.7

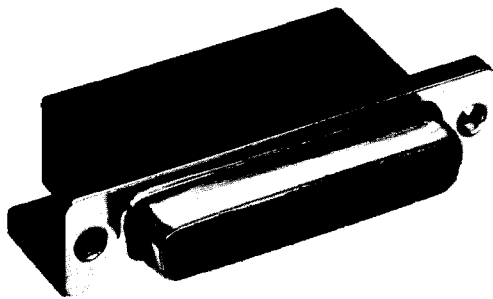
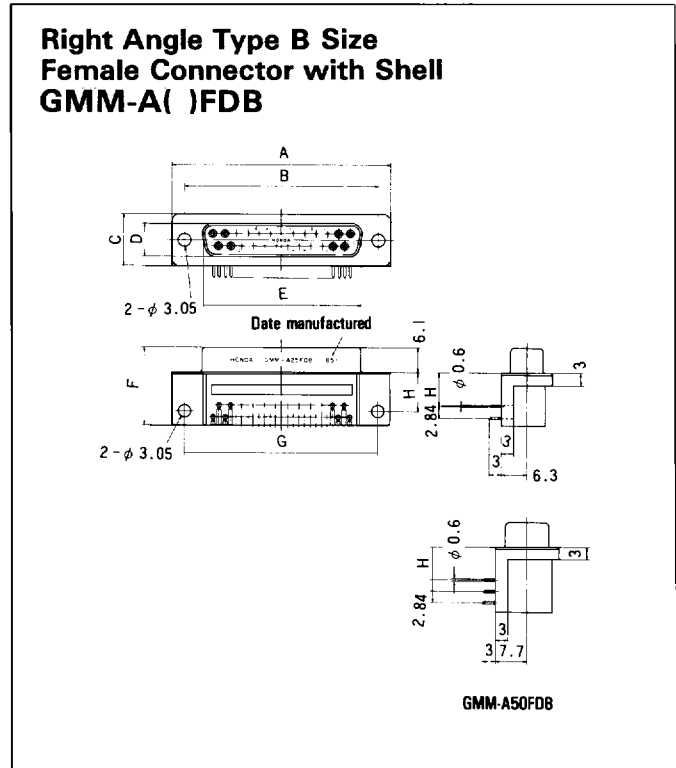
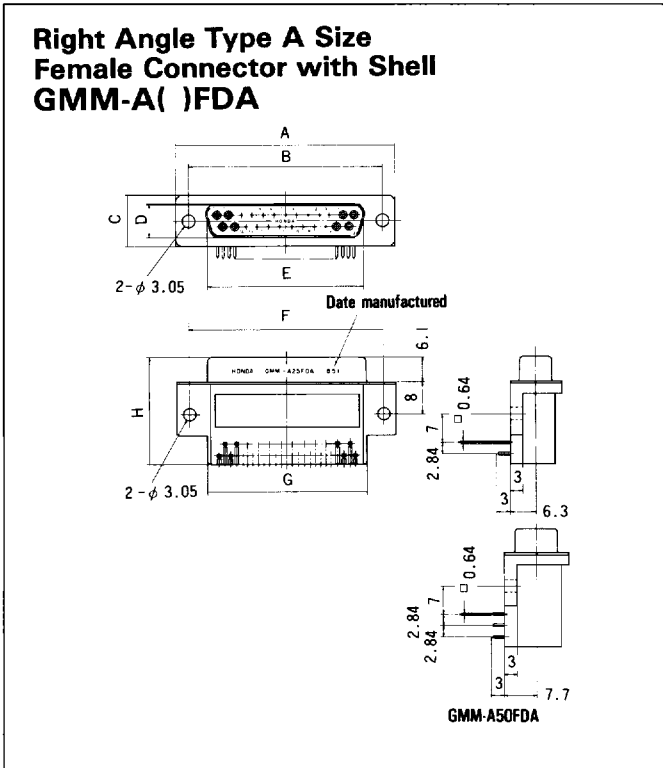
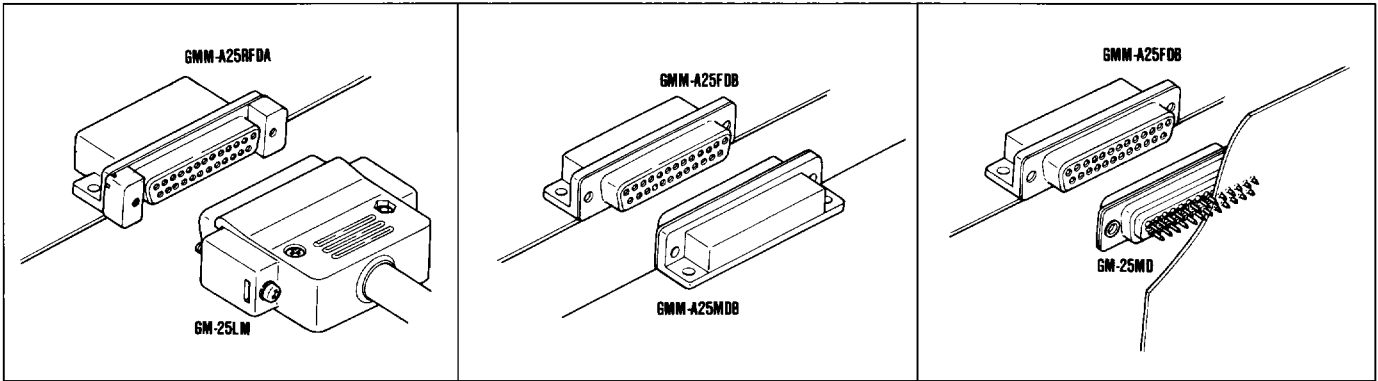
Items marked with * will become available in the very near future

● Outside Dimensions

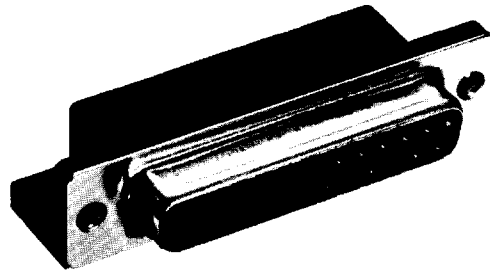
Part No.	A	B	C	D	E	F	G	H
* GMM-A9MDB	30.9	24.99	12.6	8.34	16.9	19	24.99	9.44
* GMM-A15MDB	39.1	33.32			25.24		33.32	
GMM-A25MDB	53.0	47.04			39.01		47.04	
* GMM-A37MDB	69.3	63.50			55.47		63.50	
* GMM-A50MDB	66.9	61.11	15.4	11.13	52.85	21.8	61.11	10.63

Items marked with * will become available in the very near future

FEMALE CONNECTOR WITH SHELL



GMM-A25FDA



GMM-A25FDB

● Outside Dimensions

Part No.	A	B	C	D	E	F	G	H
GMM-A9FDA	30.8	24.99	12.6	7.82	16.26	24.99	15.8	26.0
GMM-A15FDA	39.1	53.32			24.59	33.32	24.0	
GMM-A25FDA	53.0	47.04			38.30	47.04	38.0	
GMM-A37FDA	69.3	63.50			54.76	63.50	54.4	
* GMM-A50FDA	66.9	61.11	15.4	10.63	52.35	61.11	51.8	28.8

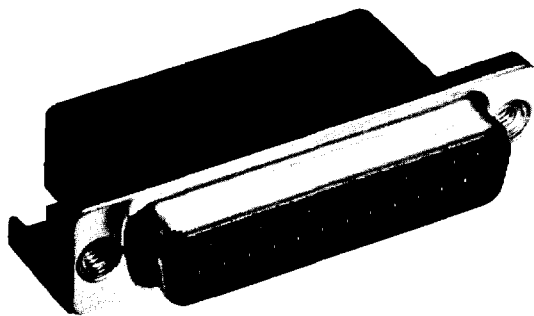
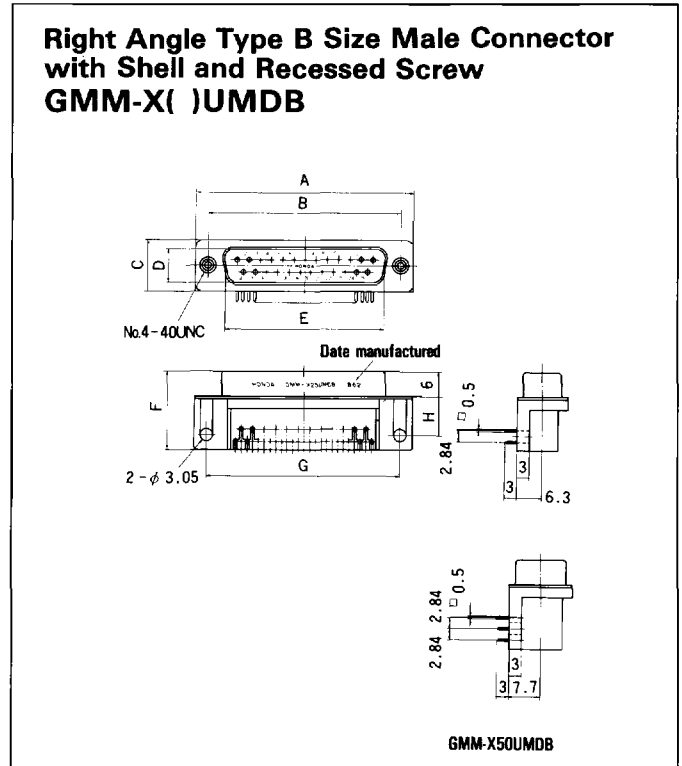
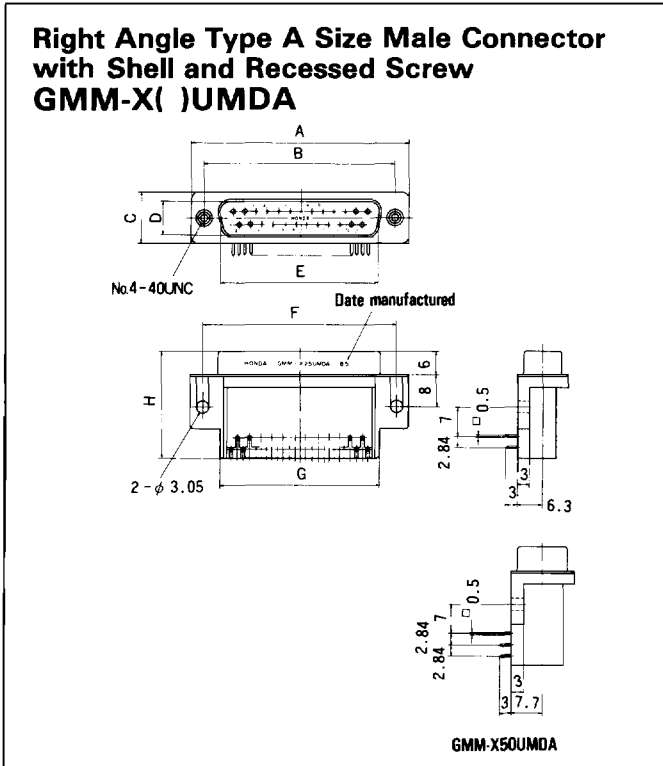
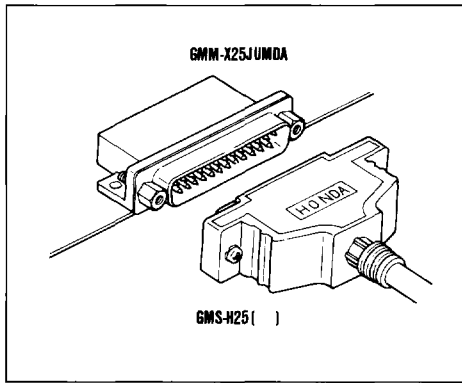
Items marked with * will become available in the very near future

● Outside Dimensions

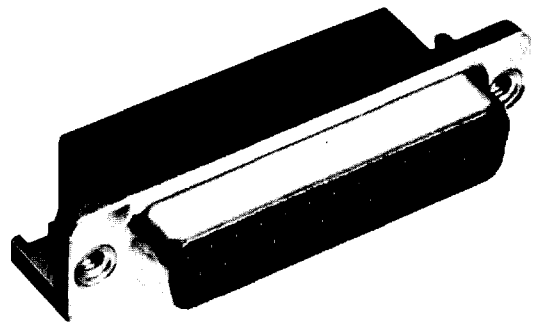
Part No.	A	B	C	D	E	F	G	H
GMM-A9FDB	30.8	24.99	12.6	7.82	16.26	19.2	24.99	9.44
GMM-A15FDB	39.1	33.32			24.59		33.32	
GMM-A25FDB	53.0	47.04			38.30		47.04	
GMM-A37FDB	69.3	63.50			54.76		63.50	
* GMM-A50FDB	66.9	61.11	15.4	10.63	52.35	22.0	61.11	10.83

Items marked with * will become available in the very near future

MALE CONNECTOR WITH SHELL & RECESSED SCREW



GMM-X25UMDA



GMM-X25UMDB

● Outside Dimensions

Part No.	A	B	C	D	E	F	G	H
GMM-X9UMDA	30.9	24.99	12.6	8.34	16.9	24.99	15.6	25.9
GMM-X15UMDA	39.1	33.32			25.24	33.32	24	
GMM-X25UMDA	53.0	47.04			39.01	47.04	38	
* GMM-X37UMDA	69.3	63.50	15.4	11.13	8.4	55.47	63.50	54.4
* GMM-X50UMDA	66.9	61.11			52.85	61.21	51.8	28.7

Items marked with * will become available in the very near future

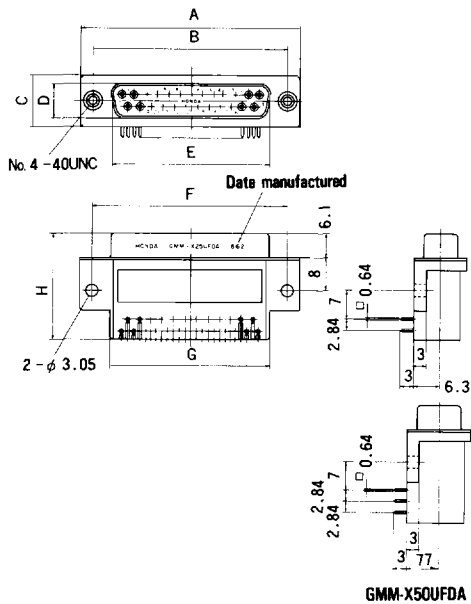
● Outside Dimensions

Part No.	A	B	C	D	E	F	G	H
GMM-X9UMDB	30.8	24.99	12.6	8.34	16.9	19	24.99	9.44
GMM-X15UMDB	39.1	33.32			25.24		33.32	
GMM-X25UMDB	53.0	47.04			39.01		47.04	
* GMM-X37UMDB	69.3	63.50	15.4	11.13	8.4	55.47	63.50	10.83
* GMM-X50UMDB	66.9	61.11			52.85	61.11	10.83	

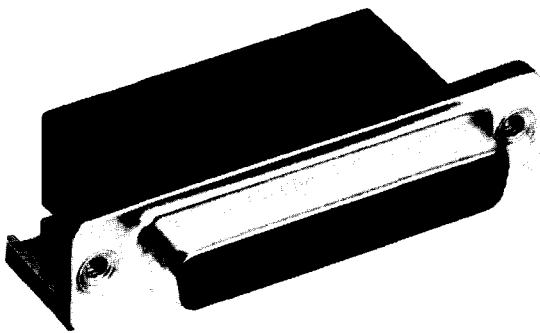
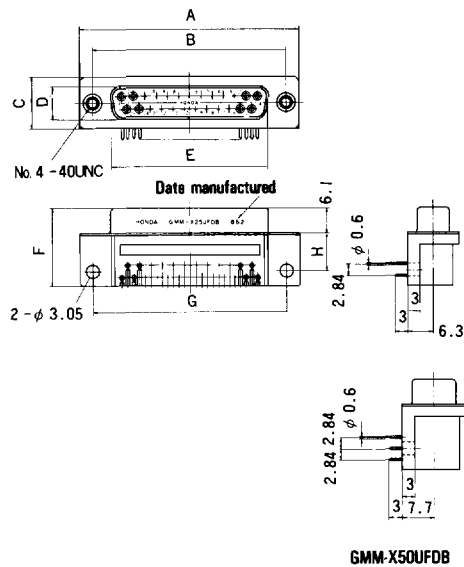
Items marked with * will become available in the very near future

FEMALE CONNECTOR WITH SHELL & RECESSED SCREW

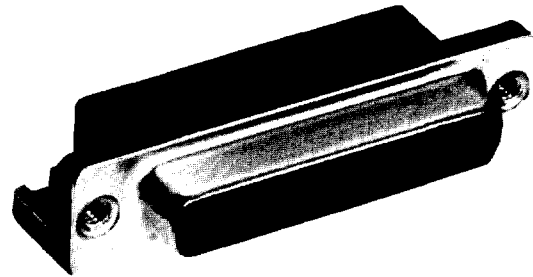
Right Angle Type A Size Female Connector with Shell and Recessed Screw GMM-X()UFDA



Right Angle Type B Size Female Connector with Shell and Recessed Screw GMM-X()UFDB



GMM-X25UFDA



GMM-X25UFDB

● Outside Dimensions

Part No.	A	B	C	D	E	F	G	H
GMM-X9UFDA	30.8	24.99	12.6	7.82	16.26	24.99	15.8	26.0
GMM-X15UFDA	39.1	33.52			26.39	33.32	24.0	
GMM-X25UFDA	53.0	47.04			38.30	47.04	38.0	
* GMM-X37UFDA	69.3	63.50			54.76	63.50	54.4	
* GMM-X50UFDA	66.9	61.11	15.4	10.63	52.35	61.11	51.8	28.8

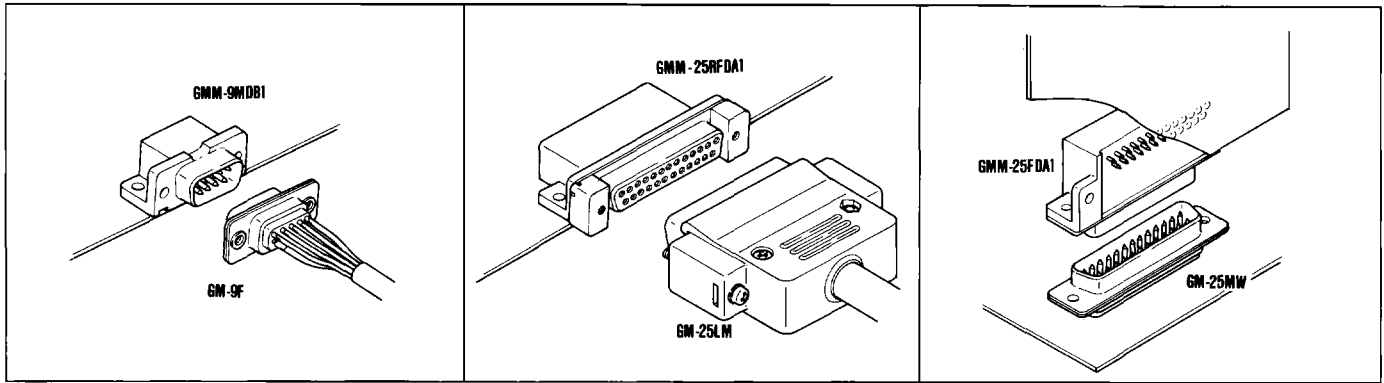
Items marked with * will become available in the very near future

● Outside Dimensions

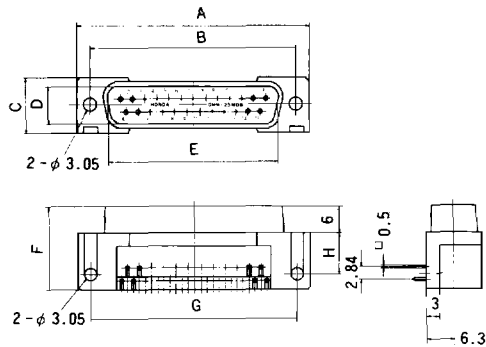
Part No.	A	B	C	D	E	F	G	H
GMM-X9UFDB	30.8	24.99	12.6	7.82	16.26	19.2	24.99	9.44
GMM-X15UFDB	39.1	33.32			24.59		33.32	
GMM-X25UFDB	53.0	47.04			38.30		47.04	
GMM-X37UFDB	69.3	63.50			54.76		63.50	
* GMM-X50UFDB	66.9	61.11	15.4	10.63	52.35	22.0	61.11	10.53

Items marked with * will become available in the very near future

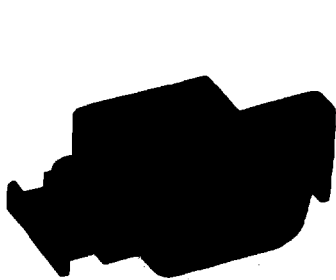
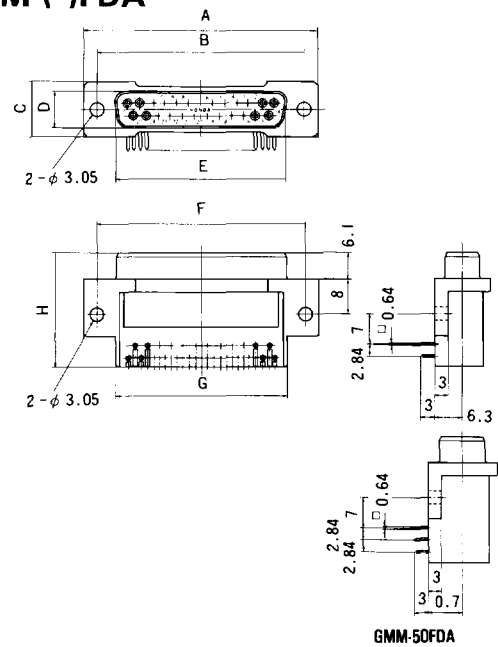
ALL-MOLD TYPE CONNECTOR



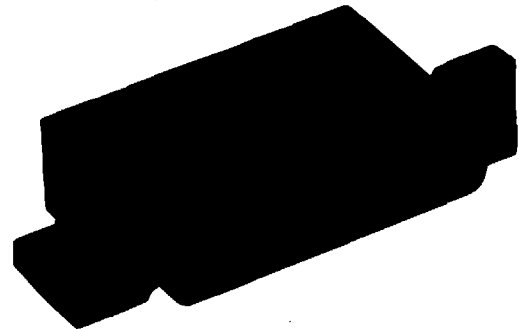
All-Mold Right Angle Type B Size Male Connector GMM-()MDB



All-Mold Right Angle Type A Size Female Connector GMM-()FDA



GMM-9MDB



GMM-25FDA

● Outside Dimensions

Part No.	A	B	C	D	E	F	G	H
GMM-9MDB	30.8	24.99			16.9		24.99	
* GMM-15MDB	39.1	33.32	12.6	8.34	25.24	19	33.32	9.44
* GMM-25MDB	53.0	47.04			39.01		47.04	
* GMM-37MDB	69.3	63.50		8.4	55.47		65.50	
* GMM-50MDB	86.9	81.11	15.4	11.13	52.95	21.8	61.11	10.83

Items marked with * will become available in the very near future

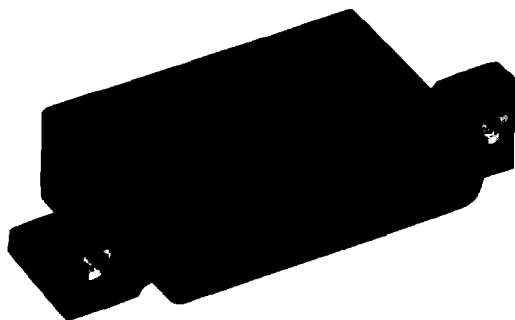
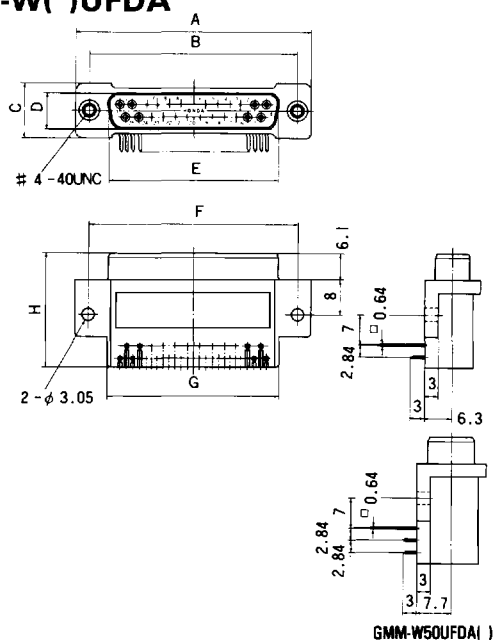
● Outside Dimensions

Part No.	A	B	C	D	E	F	G	H
GMM-9FDA	30.8	24.99			16.26	24.99	15.6	
* GMM-15FDA	39.1	33.32	12.6	7.82	24.59	33.32	24.0	26.0
* GMM-25FDA	53.0	47.04			38.30	47.04	38.0	
* GMM-37FDA	69.3	63.50			54.76	63.50	54.4	
* GMM-50FDA	86.9	81.11	15.4	10.63	52.35	61.11	51.8	28.8

Items marked with * will become available in the very near future

ALL-MOLD CONNECTOR WITH RECESSED SCREW

All-Mold Right Angle Type A Size Female Connector with Recessed Screw GMM-W()UFDA



GMM-W25UFDA

● Outside Dimensions

Part No.	A	B	C	D	E	F	G	H
* GMM-W9UFDA	30.8	24.99			16.26	24.99	15.6	
GMM-W15UFDA	39.1	33.32	12.6	7.82	24.59	33.32	24.0	26.0
GMM-W25UFDA	53.0	47.04			38.30	47.04	38.0	
* GMM-W37UFDA	69.3	63.50			54.78	63.50	54.4	
* GMM-W50UFDA	66.9	61.11	15.4	10.63	52.35	61.11	51.8	28.8

Items marked with * will become available in the very near future