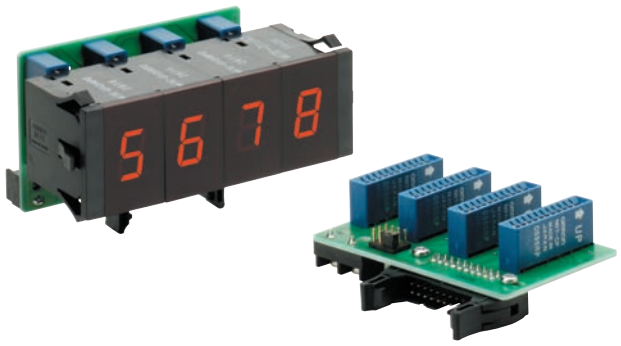
Mother Board for Display Units (Character Height: 14 mm)
M7E

CSM_M7E_mother(14mm)_DS_E_2_2

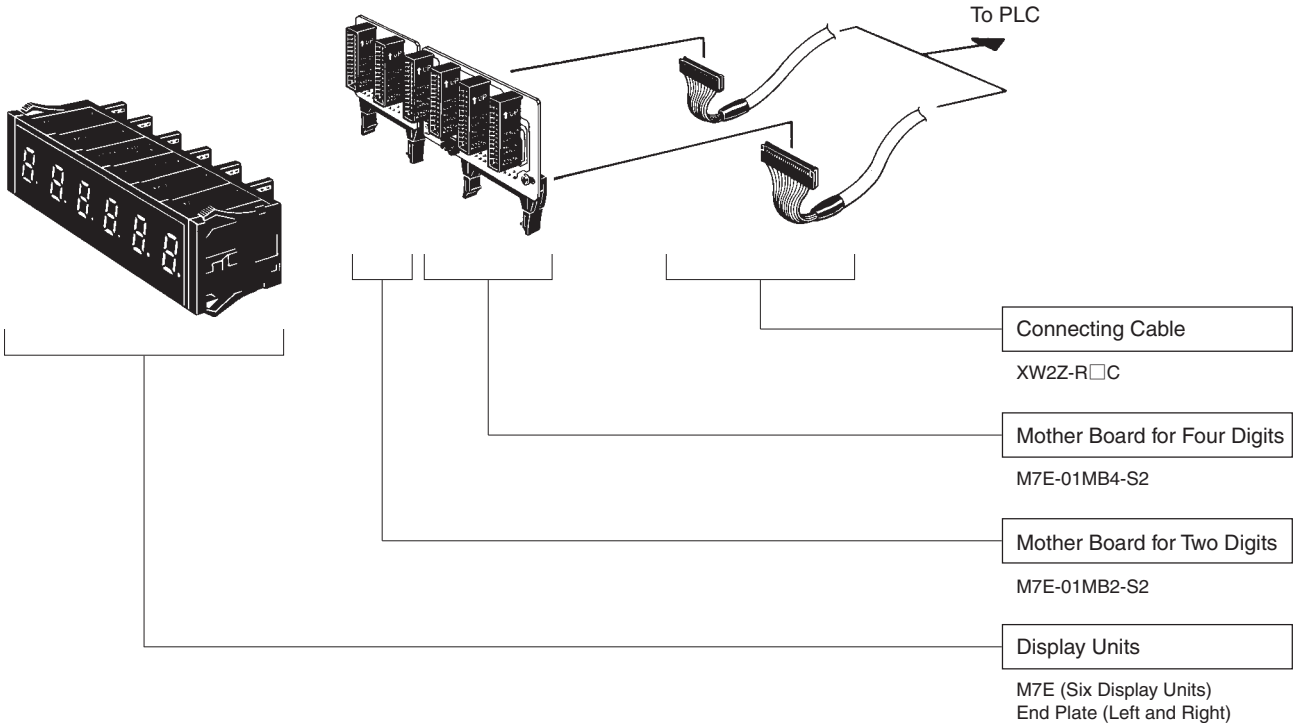
Compact (Two-, Three-, or Four-digit) S2-series Added to Static Mother Board Models

- Easily connect a M7E Digital Display without soldering.
- Two-, three- and four-digit Mother Boards are available for connecting M7E Digital Displays and, by using two Mother Boards, two- to eight-digit displays are possible.
- The depth of the Mother Board with M7E Digital Display Units is only 58 mm, ideal for mounting to compact or thin control panels.
- Connecting to OMRON's PLCs via dedicated PLC cables (sold separately) (refer to *M7E Options*).



Model Configuration

■ Configuration (Example of 6-digit Display)



Ordering Information

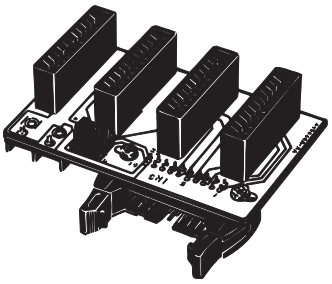
■ List of Models

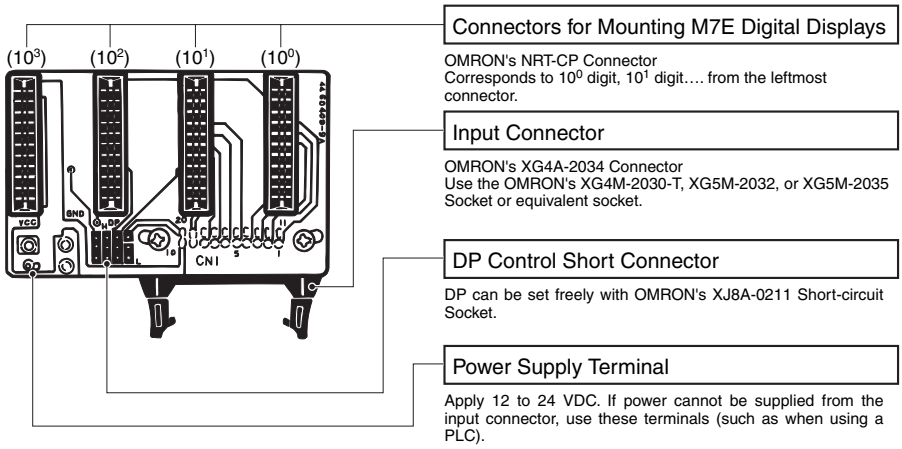
Type	Number of digits	Model
Static	4	M7E-01MB4-S2
Static	3	M7E-01MB3-S2
Static	2	M7E-01MB2-S2
Dynamic (See note.)	4	M7E-01MB4-D

Note: Cannot be used with the M7E-01D□D2 (Models with Zero Suppression).

Nomenclature

■ Mother Board Model for Display Units with 14 mm-high Characters



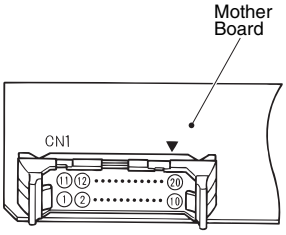


Installation

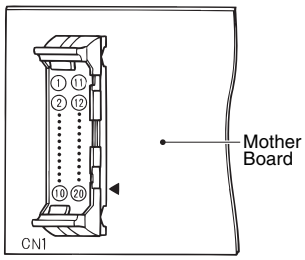
■ Input Connector (CN1) Pin Arrangement

The following illustration shows the pin arrangement of the XG4A-2034/-2031 Input Connector. Be sure to check the terminal numbers before preparing the socket.

M7E-01MB4-S2
M7E-01MB3-S2
M7E-01MB2-S2
(Connector: XG4A-2034)

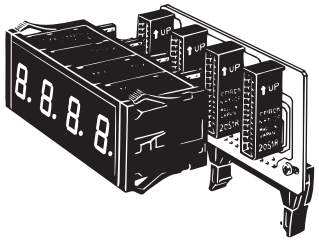


M7E-01MB4-D
(Connector: XG4A-2031)



■ Inserting Connectors

When inserting the M7E Mother Board, make sure that the UP arrow is pointing upwards.

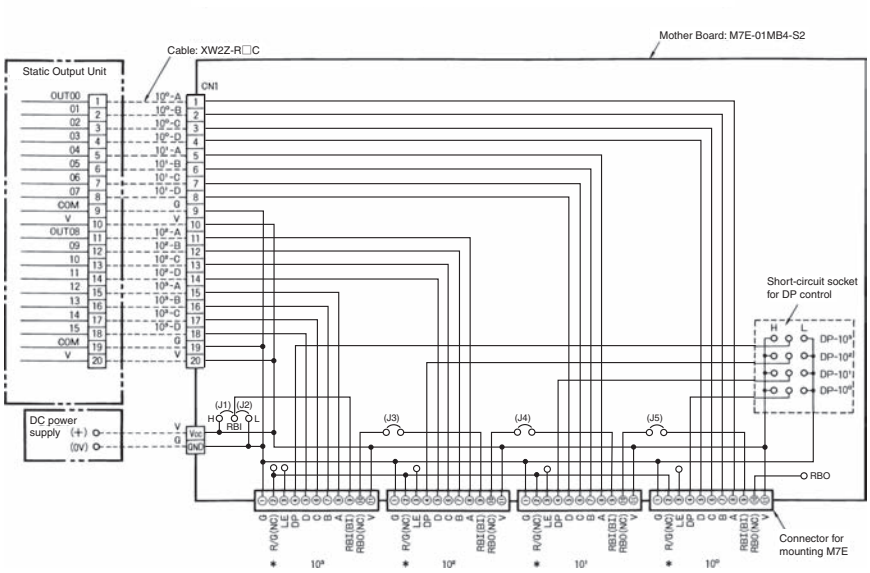


Five- to Eight-digit Display

When using M7E Mother Boards in combination for five- to eight-digit displays, locate the M7E-01MB2-S2 Mother Board (for two-digit display) on the left of the other M7E Mother Board. (The M7E Units cannot be mounted side by side if the 2-digit Mother Board is used for the rightmost digits.) In this case, zero suppression can be performed by connecting the RBO of the Mother Board for the leftmost digit and the RBI of the Mother Board for the rightmost digit.

■ Circuit Diagrams

M7E-01MB4-S2



* The M7E-01□□N2 (negative logic) is used with the following:

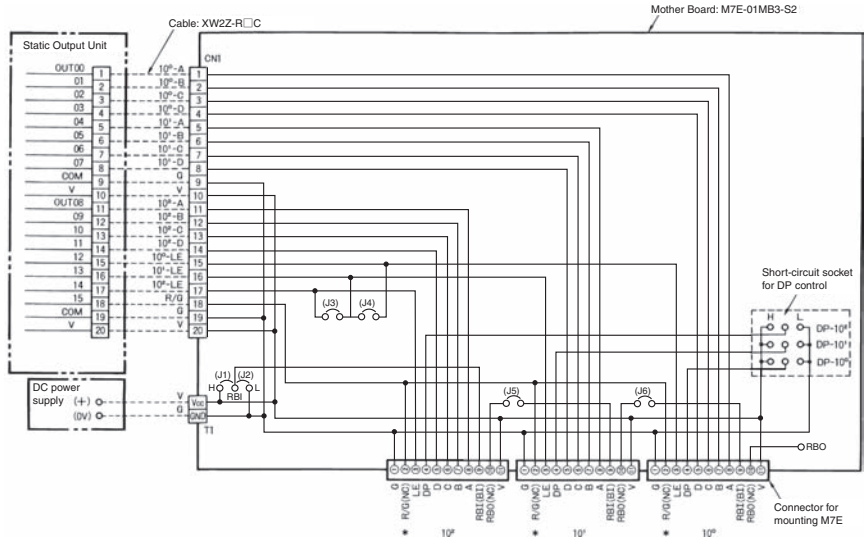
PLC Unit: CS1W-OD231 and CJ1W-OD231 with static outputs

Cable: XW2Z-R□C

Note: Connect the following jumpers when using zero suppression.

Type	Jumper
Positive logic	J1, J3, J4, J5
Negative logic	J2, J3, J4, J5

M7E-01MB3-S2



* The M7E-01□□N2 (negative logic) is used with the following:

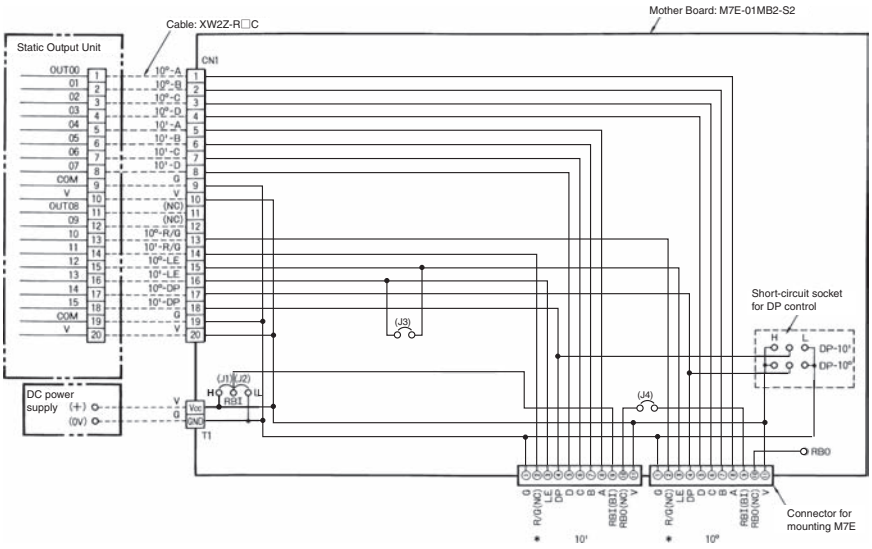
PLC Unit: CS1W-OD231 and CJ1W-OD231 with static outputs

Cable: XW2Z-R□C

Note: Connect the following jumpers when using zero suppression.

Type	Jumper
Positive logic	J1, J5, J6
Negative logic	J2, J5, J6

M7E-01MB2-S2



* The M7E-01□□N2 (negative logic) is used with the following:

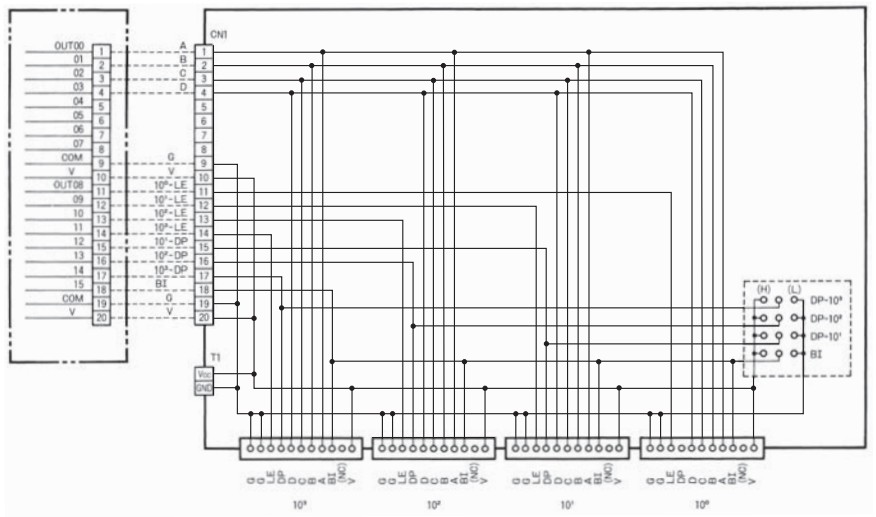
PLC Unit: CS1W-OD231 and CJ1W-OD231 with static outputs

Cable: XW2Z-R□C

Note: Connect the following jumpers when using zero suppression.

Type	Jumper
Positive logic	J1, J4
Negative logic	J2, J4

M7E-01MB4-D (The M7E-01D□D2 (zero suppression) cannot be used.)



* With connection, e.g., to a microcomputer control circuit.

Use a PLC with static output if a PLC is to be connected.

Note: 1. The M7E-01DRGN2 (red/green two-color models) cannot be used with the M7E-01MB4-D Mother Board. The display will remain green and the color cannot be selected.

2. Short-circuit Sockets for DP control are not mounted.

■ DP/BI Control

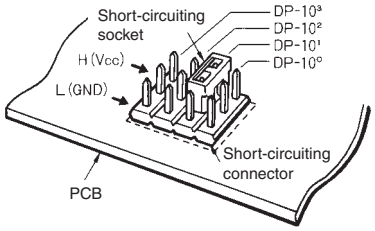
- By using the XJ8A-0211 Short-circuit Socket, the decimal point can be lit between any adjacent digits specified by the user.
- Short-circuit connectors (XJ8D-1211) and short-circuit sockets (XJ8A-0211) are not mounted on the M7E-01MB4-D.

Terminal	Symbol	M7E		
		Positive logic	Dynamic output	Negative logic
(See note 1.) $DP-10^0$ 10^1 10^2 10^3	H	Lit	Off	Off
	L	Off	Lit	Lit
	Open	Off	Off	Off
(See note 2.) BI	H	All OFF	All lit	All lit
	L	All lit	All OFF	All OFF
	Open	All lit	All lit	All lit

Note: 1. The DP terminal is used to turn ON the decimal point for each digit.

2. The BI terminal is used to light or turn OFF all digits.

Example: When lighting the decimal point on the 10^1 digit
Mother Board: M7E-01MB4-S2 static, 4-digit model
M7E: M7E-01D□P2 positive logic standard model

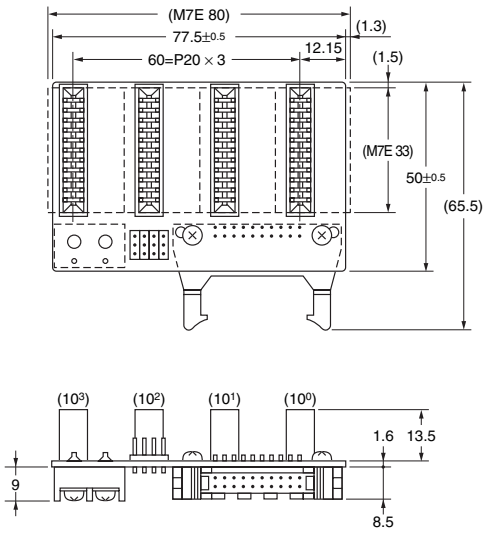


- Either the short-circuit connector or PLC can be connected when controlling DP/BI terminals on the M7E-01MB4-D Mother Board (dynamic model) or controlling the DP terminal on the M7E-01MB2-S2 (two-digit static model). Do not connect both the short-circuit connector and PLC to the Mother Board.
- The BI terminal can be used for control only on the M7E-01MB4-D.

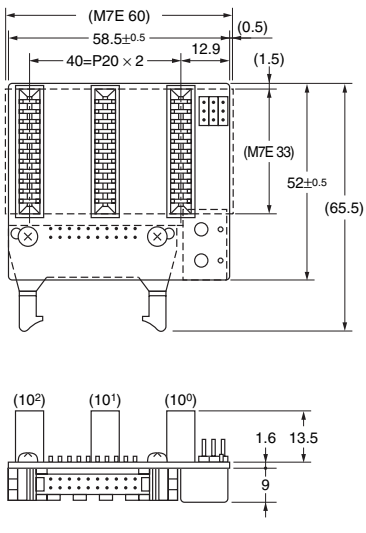
Dimensions

Note: All units are in millimeters unless otherwise indicated.

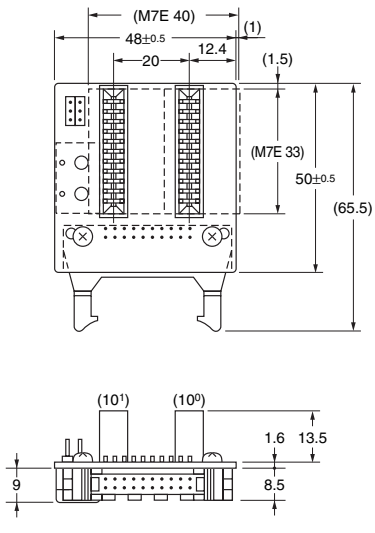
M7E-01MB4-S2



M7E-01MB3-S2

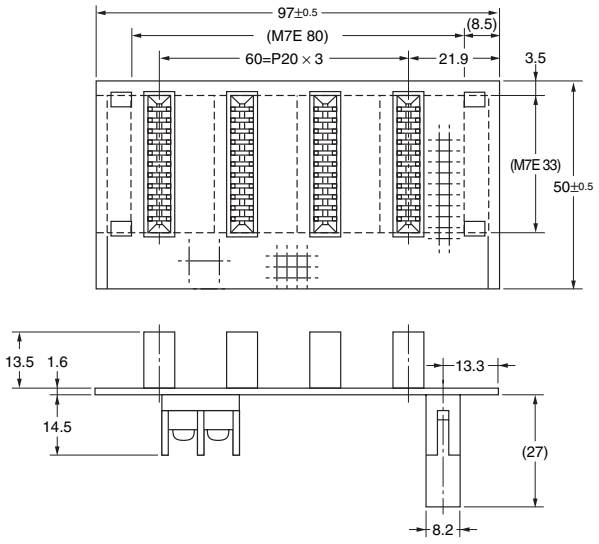


M7E-01MB2-S2



Note: 1. Dotted lines indicate the mounting dimensions of the M7E.
2. Tolerance is ±0.4 mm unless otherwise specified.

M7E-01MB4-D



Note: 1. Dotted lines indicate the mounting dimensions of the M7E.
2. Tolerance is ±0.4 mm unless otherwise specified.
3. Short-circuit Sockets for DP control are not mounted.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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