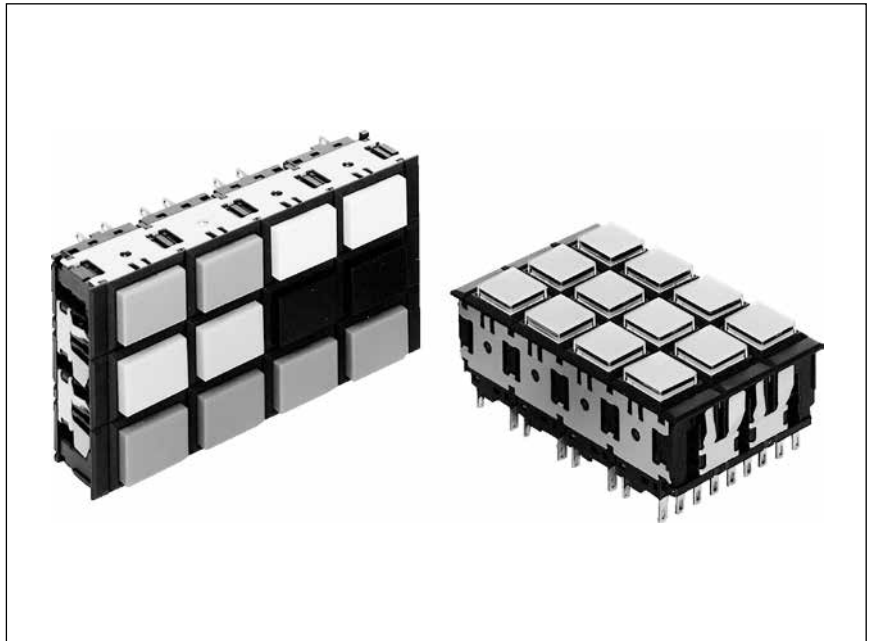


MA Series Combination Control Units

Save labor and cost for installation [Custom-made] Choose any MA Series (MA2/MA3) Control Units

IDEC's MA series Miniature Control Units can be combined in a frame and supplied as a complete assembly.

- Combination type with several MA series units mounted in a frame
- Maximum number of units mounted: 4 rows x 12 columns (MA2)
- Small size (unbody: 22 mm behind the panel) and space-saving
- Super bright LED



Specifications

Applicable MA Series Units (Note)	MA2/MA3 illuminated pushbuttons and pushbuttons (All models)
Maximum No. of Units Mounted	MA2: 4 rows x 12 columns MA3: 4 rows x 9 columns Mounting in only one row, and mixture of MA2 and MA3 units are not available.
Panel Thickness	1.0 to 4.0 mm
Frame Material	Stainless steel
Operating Temperature	-25 to +55°C (no freezing)
Storage Temperature	-40 to +80°C (no freezing)

Note: For details of the MA series control units, see the preceding pages.

Mounting Clip

Mounting clips are used to secure the MA series combination control units to the rear of the panel. The mounting clips are supplied with the MA units.

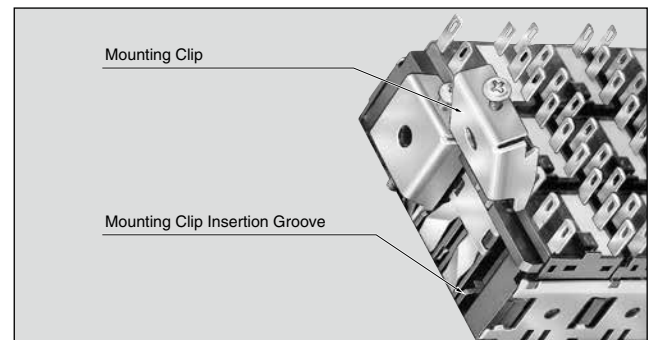
Mounting Positions and Quantities of Mounting Clips

No. of Rows	No. of Mounting Clips	Mounting Positions
2	2	
3	4	
4	4	

Note: The screw tightening torque for the mounting clips should be 0.39 N·m maximum.

Mounting Procedure

To mount the MA series units into a panel cut-out, insert the assembly from the front of the panel first, and then fit the mounting clips into the mounting grooves from the rear of the panel. Then, tighten the screws as shown below. After tightening the screws, apply loctite to the screws.

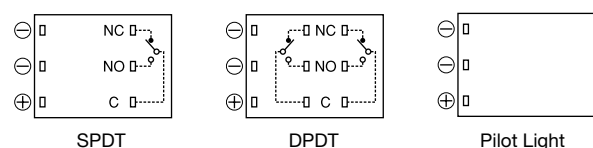


Note: Insert the mounting clip into the groove up to the nail.



The mounting clip is supplied with the housing.

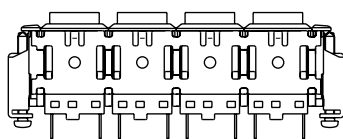
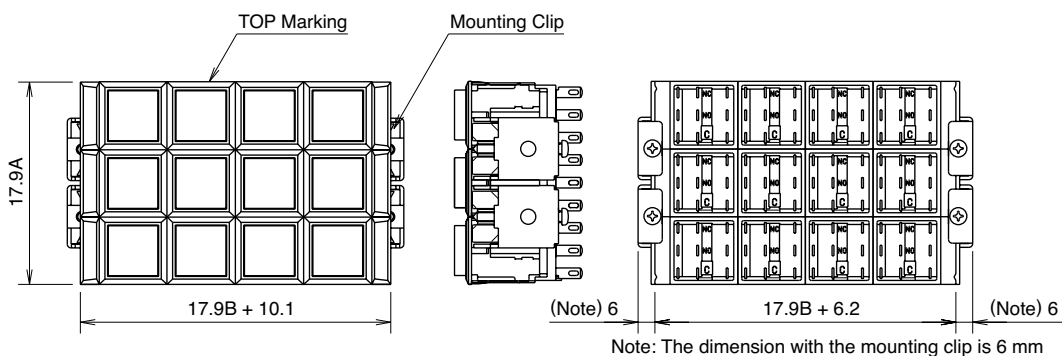
Terminal Arrangement (Bottom View)



Dimensions

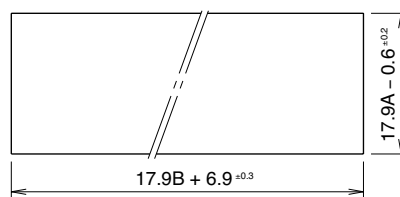
All dimensions in mm.

Combination of MA2 Units (Square)

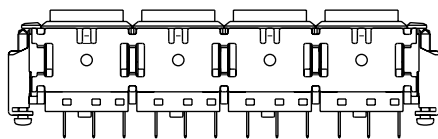
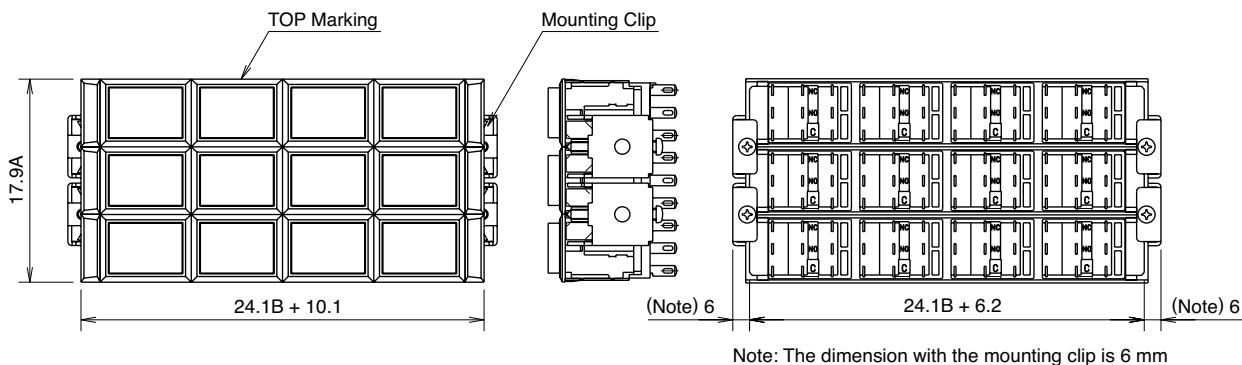


A: Rows
B: Columns

Panel Cut-out
(Panel Thickness: 1.0 to 4.0)

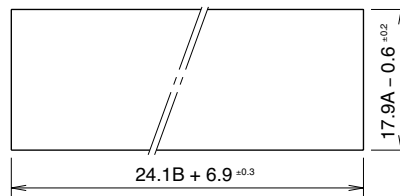


Combination of MA3 Units (Rectangular)



A: Rows
B: Columns

Panel Cut-out
(Panel Thickness: 1.0 to 4.0)



Instructions

Lens and marking plate mounting/removing procedures, LED unit handling precaution, and wiring precaution are the same as those of the single mounting of the MA series miniature control unit. For details, see page 19 and page 20.

Ordering Information

Contact IDEC for information on the ordering method, price and delivery.

Ordering Terms and Conditions

Thank you for using IDEC Products.

By purchasing products listed in our catalogs, datasheets, and the like (hereinafter referred to as "Catalogs") you agree to be bound by these terms and conditions. Please read and agree to the terms and conditions before placing your order.

1. Notes on contents of Catalogs

- (1) Rated values, performance values, and specification values of IDEC products listed in this Catalog are values acquired under respective conditions in independent testing, and do not guarantee values gained in combined conditions.
Also, durability varies depending on the usage environment and usage conditions.
- (2) Reference data and reference values listed in Catalogs are for reference purposes only, and do not guarantee that the product will always operate appropriately in that range.
- (3) The specifications / appearance and accessories of IDEC products listed in Catalogs are subject to change or termination of sales without notice, for improvement or other reasons.
- (4) The content of Catalogs is subject to change without notice.

2. Note on applications

- (1) If using IDEC products in combination with other products, confirm the applicable laws / regulations and standards.
Also, confirm that IDEC products are compatible with your systems, machines, devices, and the like by using under the actual conditions. IDEC shall bear no liability whatsoever regarding the compatibility with IDEC products.
- (2) The usage examples and application examples listed in Catalogs are for reference purposes only. Therefore, when introducing a product, confirm the performance and safety of the instruments, devices, and the like before use. Furthermore, regarding these examples, IDEC does not grant license to use IDEC products to you, and IDEC offers no warranties regarding the ownership of intellectual property rights or non-infringement upon the intellectual property rights of third parties.
- (3) When using IDEC products, be cautious when implementing the following.
 - i. Use of IDEC products with sufficient allowance for rating and performance
 - ii. Safety design, including redundant design and malfunction prevention design that prevents other danger and damage even in the event that an IDEC product fails
 - iii. Wiring and installation that ensures the IDEC product used in your system, machine, device, or the like can perform and function according to its specifications
- (4) Continuing to use an IDEC product even after the performance has deteriorated can result in abnormal heat, smoke, fires, and the like due to insulation deterioration or the like. Perform periodic maintenance for IDEC products and the systems, machines, devices, and the like in which they are used.
- (5) IDEC products are developed and manufactured as general-purpose products for general industrial products. They are not intended for use in the following applications, and in the event that you use an IDEC product for these applications, unless otherwise agreed upon between you and IDEC, IDEC shall provide no guarantees whatsoever regarding IDEC products.
 - i. Use in applications that require a high degree of safety, including nuclear power control equipment, transportation equipment (railroads / airplanes / ships / vehicles / vehicle instruments, etc.), equipment for use in outer space, elevating equipment, medical instruments, safety devices, or any other equipment, instruments, or the like that could endanger life or human health
 - ii. Use in applications that require a high degree of reliability, such as provision systems for gas / waterworks / electricity, etc., systems that operate continuously for 24 hours, and settlement systems
 - iii. Use in applications where the product may be handled or used deviating from the specifications or conditions / environment listed in the Catalogs, such as equipment used outdoors or applications in environments subject to chemical pollution or electromagnetic interference
If you would like to use IDEC products in the above applications, be sure to consult with an IDEC sales representative.

3. Inspections

We ask that you implement inspections for IDEC products you purchase without delay, as well as thoroughly keep in mind management/maintenance regarding handling of the product before and during the inspection.

4. Warranty

- (1) Warranty period
The warranty period for IDEC products shall be one (1) year after purchase or delivery to the specified location. However, this shall not apply in cases where there is a different specification in the Catalogs or there is another agreement in place between you and IDEC.
- (2) Warranty scope
Should a failure occur in an IDEC product during the above warranty period for reasons attributable to IDEC, then IDEC shall replace or repair that product, free of charge, at the purchase location / delivery location of the product, or an IDEC service base. However, failures caused by the following reasons shall be deemed outside the scope of this warranty.
 - i. The product was handled or used deviating from the conditions / environment listed in the Catalogs
 - ii. The failure was caused by reasons other than an IDEC product
 - iii. Modification or repair was performed by a party other than IDEC
 - iv. The failure was caused by a software program of a party other than IDEC
 - v. The product was used outside of its original purpose
 - vi. Replacement of maintenance parts, installation of accessories, or the like was not performed properly in accordance with the user's manual and Catalogs
 - vii. The failure could not have been predicted with the scientific and technical standards at the time when the product was shipped from IDEC
 - viii. The failure was due to other causes not attributable to IDEC (including cases of force majeure such as natural disasters and other disasters)Furthermore, the warranty described here refers to a warranty on the IDEC product as a unit, and damages induced by the failure of an IDEC product are excluded from this warranty.

5. Limitation of liability

The warranty listed in this Agreement is the full and complete warranty for IDEC products, and IDEC shall bear no liability whatsoever regarding special damages, indirect damages, incidental damages, or passive damages that occurred due to an IDEC product.

6. Service scope

The prices of IDEC products do not include the cost of services, such as dispatching technicians. Therefore, separate fees are required in the following cases.

- (1) Instructions for installation / adjustment and accompaniment at test operation (including creating application software and testing operation, etc.)
- (2) Maintenance inspections, adjustments, and repairs
- (3) Technical instructions and technical training
- (4) Product tests or inspections specified by you

The above content assumes transactions and usage within your region. Please consult with an IDEC sales representative regarding transactions and usage outside of your region. Also, IDEC provides no guarantees whatsoever regarding IDEC products sold outside your region.

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