



# IP65 rated panel meters

Highly visible square-shaped AC/DC meters

Plastic & lightweight with simple structure



# AM2B Waterproof Panel Meter

## IP65 rated AC/DC panel meters

- AC ammeter with expansion scale of x2 / x3 / x3 nominal (standard: x3 expansion scale)
- DC ammeter, DC voltmeter, and reception indicator features also available.
- Low price and shorter delivery time compared to conventional AM20 meters.
- Can be installed on AGA and AGS control boxes.

### AM2B

Package quantity: 1

Type	Weight	Specification	Capacity	Part No. (Ordering No.)
AC Ammeter	140g	x3 expansion scale, without red pointer	5A	AM2B-AA5A0-5-15AB
			10A	AM2B-AA10A0-10-30AB
			15A	AM2B-AA15A0-15-45AB
			30/5A	AM2B-AA5A0-30-90A30/5AB
			60/5A	AM2B-AA5A0-60-180A60/5AB
			100/5A	AM2B-AA5A0-100-300A100/5AB
			150/5A	AM2B-AA5A0-150-450A150/5AB
			200/5A	AM2B-AA5A0-200-600A200/5AB
			300/5A	AM2B-AA5A0-300-900A300/5AB

\*) For part numbers other than the above (without x2/x5 expansion scale, with red pointer, current transformer/1A, DC ammeter, reception indicator, special scale, etc), refer to the Part No. Configuration or contact IDEC.



## Part No. Configuration

### AC Ammeter

**AM2B - AA 5A 0-10-30A 10/5A BR - \***

- ① Rating
- 1A: 1A  
(Direct measuring / For CT(/1A))
- 5A: 5A  
(Direct measuring / For CT (/5A)  
\* (/1A) and (/5A) only for CT
- 10A: 10A  
(Direct measuring)
- Other (\*1)
- ② Scale
- 0-10A: 0 to 10A, no expansion
- 0-10-30A: 0 to 10A, x3 expansion
- Other (\*1)
- ③ CT ratio
- None: Direct measuring
- 10/5A: 10/5A CT connection
- Other (\*1)
- ④ Red set pointer
- B: Without red set pointer
- BR: With red set pointer
- ⑤ Special specifications
- Double scale,  
color line, etc.

- \*1) Applicable model:
- Direct measuring - 500MA, 1A, 3A, 5A, 10A, 15A, 20A, 30A
- With CT - 5/5A, 10/5A, 15/5A, 20/5A, 30/5A, 40/5A,  
50/5A, 60/5A, 75/5A, 100/5A, 150/5A, 200/5A,  
250/5A, 300/5A, 400/5A, 500/5A
- Others (/5A), (/1A)
- Expansion scale: - x2, x3 (standard), x5

### DC Voltmeter

**AM2B - DV 0-5V BR - \***

- ① Scale
- 0-5V: 0 to 5V
- Other (\*3)
- ② Red set pointer
- B: Without red set pointer
- BR: With red set pointer
- \*3) Applicable model:
- Direct measuring - 1V, 3V, 5V, 10V, 15V, 30V, 50V, 100V, 150V, 300V,  
500V, 600V, Others
- ③ Special specifications
- Double scale,  
color line, etc.

### DC Ammeter

**AM2B - DA 0-20A BR - \***

- ① Scale
- 0-20A: 0 to 20A
- Other (\*2)
- ② Red pointer
- B: Without red pointer
- BR: With red pointer
- \*2) Applicable model:
- Direct measuring - 1MA, 3MA, 5MA, 10MA, 20MA, 50MA, 100MA, 200MA,  
500MA, 1A, 2A, 5A, 7.5A, 10A, 15A, 20A, 30A, Others
- ③ Special specifications
- Double scale,  
color line, etc.

### Reception Indicator

**AM2B - RI 0-100PERCENT BR FS4-20MA - \***

- ① Scale
- 0-100PERCENT: 0 to 100%
- 0-1800RPM: 0 to 1800rpm
- 0-300A: 0 to 300A
- Other: (\*4)
- ② Red pointer
- B: Without red pointer
- BR: With red pointer
- \*4) Example of double scale: 0-100PERCENT (1st scale) / 0-300A (2nd scale)
- \*5) Applicable model:
- DC Current - 1MA, 5MA, 10MA, 20MA, ±0.5MA, ±1MA, 1-5MA, 2-10MA,  
4-20MA, 10-50MA, (Other)
- DC Voltage - 1V, 3V, 5V, 10V, 15V, 30V, 50V, 60V, 100V, 1-5V
- ③ Rating
- FS4-20MA: 4 to 20mA DC
- Other (\*5)
- ④ Special specifications
- Double scale,  
color line, etc.

## Part No. example for AGA/AGS control boxes equipped with AM2B

Package Quantity: 1

Series	Box specification	Mounting unit (*1)	Part No. (Ordering No.)
AGA	4 holes/Wall mount	(A), (PB), (PB)	AGAM4102Y
	5 holes/Wall mount	(A), (PL), (PB), (PB)	AGAM5102Y
AGS	4 holes/Wall mount	(A), (PB), (PB)	AGSM4102
	5 holes/Wall mount	(A), (PL), (PB), (PB)	AGSM5102

- \*1) (A): AM2B, (PL): Pilot Light, (PB): Pushbuttons
- For details, see brochure for each control box.
  - For other combinations, contact IDEC.

### General Specifications

Operation Principle	AC Ammeter	Moving-iron core
	DC Ammeter DC Voltmeter Reception Indicator	Permanent-magnet moving coil
Scale	Expansion Scale	No expansion, x2, x3, x5 (Standard scale: x3) (Expansion scale available only with AC Ammeter)
	Special Scale	Multiple scale, conversion scale, color scale, specific symbol, etc.
Pointer		Red set pointer (optional)
Degree of protection		IP65 (IEC 60529), *only when mounted on IP65 enclosure
Installation location		Indoors

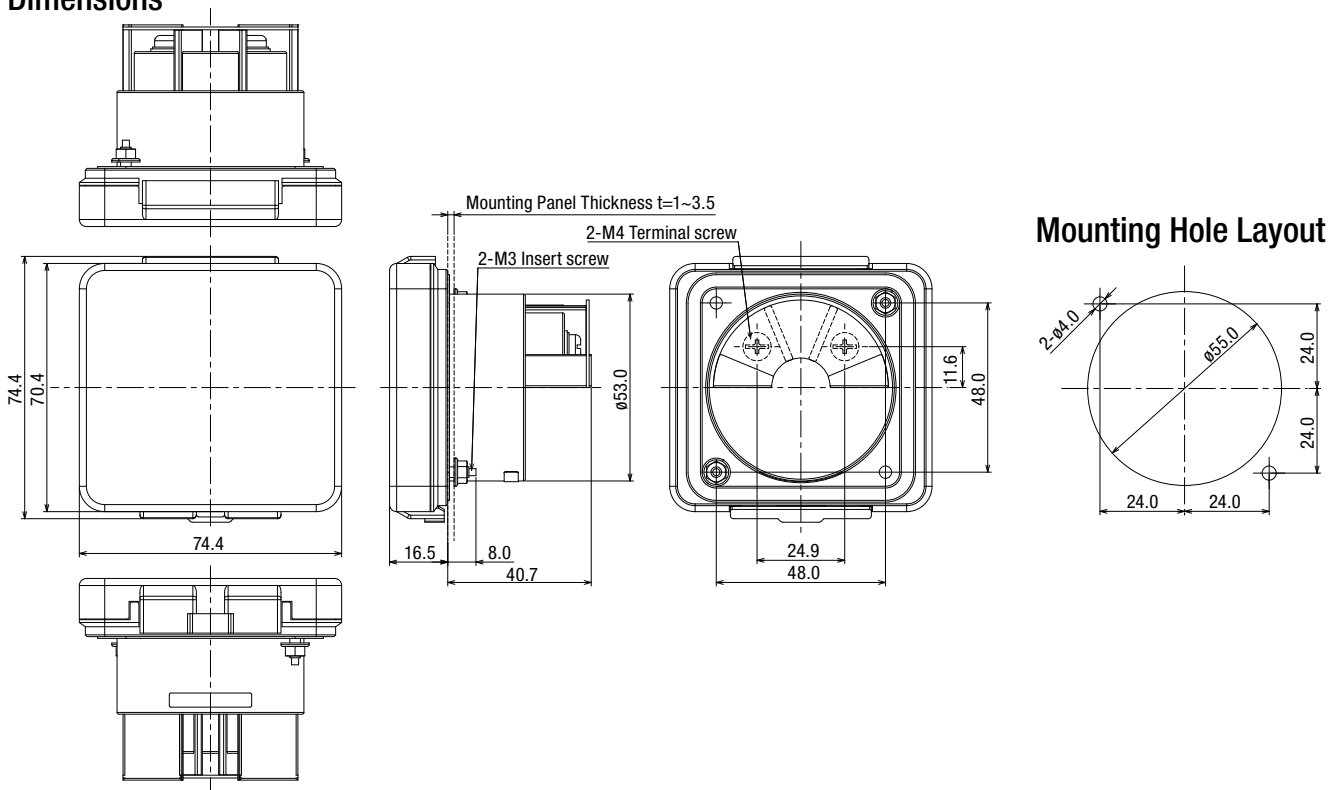
\*1) AM2B is manufactured by Mitsubishi Electric Corporation. For details on wiring diagrams and detailed specifications, contact Mitsubishi Electric Corporation by referring to the Part No. on the right table. (□ and \* contain the same symbols. See Part No. Configuration for details.)

Material	Meter	See the Mitsubishi Electric catalogue.
	Waterproof, Dustproof Cover	Cover: Copolyester resin Base: Formulated PPO resin Waterproof gasket: Silicon and EPDM packing
Color	Meter	Black
	Scale Plate	White
	Waterproof, Dustproof Cover	Clear
	Waterproof, Dustproof Cover Base	Black
Insulation Resistance		10MΩ min. (500V DC megger)
Dielectric Strength		2210V AC, 5 sec (between charged and non-charged parts)
Degree of Accuracy		Class 2.5
Operating Temperature		-5 to +50°C (no freezing)
Storage Humidity		40 to 75%RH (no condensation)
Operating Humidity		-20 to +60°C (no freezing)
Storage Humidity		Less than 90%RH (no condensation)
Pressure		2000m max.
Pollution Degree		3
Category		III
Mounting Orientation		Vertical (⊥)
Mounting Panel		Metal panel

Type of Meter	IEEC Part No. (Waterproof panel Meter)	Mitsubishi Electric Model No. (Mitsubishi Electric Indicator)
AC Ammeter	AM2B-AA□-*	YS-206NAA□-*
DC Ammeter	AM2B-DA□-*	YM-206NDA□-*
DC Voltmeter	AM2B-DV□-*	YM-206NDV□-*
Reception Indicator	AM2B-RI□-*	YM-206NRI□-*

### Dimensions

Dimensions in mm.



### ⚠ Safety Precautions

Turn off the power before installation, removal, wiring, maintenance, and inspection. Failure to turn power off may cause electrical shock or fire hazard.

### Instructions

Be sure to read the instruction sheet before installation, wiring, operation, and maintenance of the product.

For details on mounting, wiring, and circuit examples, see the instruction manual from the below URL.  
URL: <https://product.idec.com/?product=AM2B>



## 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.

# IDEC CORPORATION

#### Head Office

6-64, Nishi-Miyahara-2-Chome, Yodogawa-ku, Osaka 532-0004, Japan

<b>USA</b>	IDEC Corporation	Tel: +1-408-747-0550	opencontact@idec.com
<b>Germany</b>	APEM GmbH	Tel: +49-40-25 30 54-0	service@eu.idec.com
<b>Singapore</b>	IDEC Izumi Asia Pte. Ltd.	Tel: +65-6746-1155	info@sg.idec.com
<b>Thailand</b>	IDEC Asia (Thailand) Co., Ltd	Tel: +66-2-392-9765	sales@th.idec.com
<b>India</b>	IDEC Controls India Private Limited	Tel: +91-80679-35328	info_india@idec.com
<b>Taiwan</b>	IDEC Taiwan Corporation	Tel: +886-2-2577-6938	service@tw.idec.com

<b>Hong Kong</b>	IDEC Izumi (H.K.) Co., Ltd.	Tel: +852-2803-8989	info@hk.idec.com
<b>China</b>	IDEC (Shanghai) Corporation	Tel: +86-21-6135-1515	idec@cn.idec.com
	Beijing Branch	Tel: +86-10-6581-6131	idec@cn.idec.com
	Guangzhou Branch	Tel: +86-20-8362-2394	idec@cn.idec.com
<b>Japan</b>	IDEC Corporation	Tel: +81-6-6398-2527	jp_marketing@idec.com

 [www.idec.com](http://www.idec.com)

Specifications and other descriptions in this brochure are subject to change without notice. Information in this brochure is current as of December, 2023.

©2023 IDEC Corporation, All Rights Reserved.

EP1757-1

