

SETPOINT COMPARATOR

AM-215A



■ Features

- AL1 and AL2 set-point
- Bright LED 8mm (Red)
- 1 to 5V, 4 to 20mA Measurement
- Power Supply DC24V ±20% (isolated)
- Offset +/-9999 adjustable
- Fullscale +/-9999 adjustable

■ DC Voltage Measurement

Model	Range	Display Adjustable	Input Impedance	Max. Allowed Input
AM-215A-11	±99.99mV	Offset ±9999 Full scale ±9999	100M or more	±50V
AM-215A-12	±999.9mV			
AM-215A-13	±9.999V		Approx. 1M	
AM-215A-1V	1 to 5V			

Accuracy : ±(0.03% of rdg. +2 digit) (23 ±5)

■ DC Current Measurement

Model	Range	Display Adjustable	Input Impedance	Max. Allowed Input
AM-215A-2A	4-20mA	Offset ±9999 Full scale ±9999	Approx. 50	±50mA

Accuracy : ±(0.1% of rdg. +2 digit) (23 ±5)

* This accuracy is for (FSC - OFS) / (FIN - OIN) ±1
*1 : 1V [(FIN - OIN) × 2], 2A : [(FIN - OIN) × 5]

■ Specifications

Measurement function : Select either DC voltage or DC current (single range)

Input circuit : Single ended

Operation type : Sigma-Delta conversion

Sampling speed : Max. 25 per second

Display : Red 7-segment LED display (character height : approx. 8mm)

Polarity display : A minus sign is displayed if the operation result is negative.

Out-of-range warning : "oL" or "-oL" is displayed with respect to the input signal when the value is outside the display range.

Max. display : ±9999 (full 4 digits)

Decimal point : Can be set at any position using the front-panel flat switches.

Zero display : Leading zero suppress

Backup : Settings are held in EEPROM (guaranteed for 100,000 writes)

Operating temperature and humidity ranges : 0 to 50 °C, 35 to 85% RH (no condensation)

Storage temperature and humidity ranges : -20 to 70 °C, 60% or less RH (no condensation)

Supply voltage : DC 24V ±20%

Consumed power : Approx. 2.2W

External dimensions : 48(W) × 24(H) × 87.8(D)

Weight : Approx. 100g

Withstand voltage : DC 500V for 1 minute across power terminals/input terminals and each output terminal.
DC 500V for 1 minute across input terminals/each output terminal.
AC 1500V for 1 minute across case/power terminals, input terminals, and each output terminal.

Insulating resistance : 100M or more with DC 500V across the terminals listed above.

Standard accessories : Operation manual, unit seal

Conformity standard : EN61326+A1, +A2
E247481

External control unit

Digital zero : Digital zero is turned ON when the DZ terminal and COM terminal are shorted or at the same potential.

External power supply unit

Rating : DC 24V ±5%

Max. load : 25mA

Comparator unit

Control method : Microcomputer computation

Setting range : -9999 to +9999

Comparator operation : Depends on sampling speed

Comparator conditions :

HI / GO / LO mode			Check result display		Output		
Comparator condition	AL1	AL2	OUT1	OUT2	OUT3		
Measurement value > HI limit value	OFF	ON	OFF	OFF	ON		
LO limit value Measurement value HI limit value	OFF	OFF	OFF	ON	OFF		
LO limit value > Measurement value	ON	OFF	ON	OFF	OFF		
HH / HI / GO mode							
Comparator condition	AL1	AL2	OUT1	OUT2	OUT3		
Measurement value > HH limit value	ON	ON	OFF	ON	ON		
Measurement value > HI limit value	ON	OFF	OFF	ON	OFF		
HI limit value Measurement value	OFF	OFF	ON	OFF	OFF		
GO / LO / LL mode							
Comparator condition	AL1	AL2	OUT1	OUT2	OUT3		
Measurement value LO limit value	OFF	OFF	OFF	OFF	ON		
LO limit value > Measurement value	OFF	ON	OFF	ON	OFF		
LL limit value > Measurement value	ON	ON	ON	ON	OFF		

Setting condition : HI / GO / LO mode HI limit value > LO limit value
HH / HI / GO mode HH limit value > HI limit value
GO / LO / LL mode LO limit value > LL limit value

Hysteresis : For each comparator all limit value can be set as 1 to 999 digits.

Relay output unit

Output ratings : DC 24V, 1A (resistance load)

Photocoupler output unit

Output ratings : MAX. 30V 50mA

Output saturation voltage : 1.2V max. at 50mA

Optional unit

Analog output unit (can not be installed together with RS-485)

Output function: 4 to 20mA (AM-215A-XX-6X) or 0 to 10V (AM-215A-XX-7X)

Output specifications:

Mode	Load Resistance	Accuracy	Ripple
4 to 20mA	0 to 250	±(0.5% of FS)	25mVp-p max.
0 to 10V	10k min.		50mVp-p max.

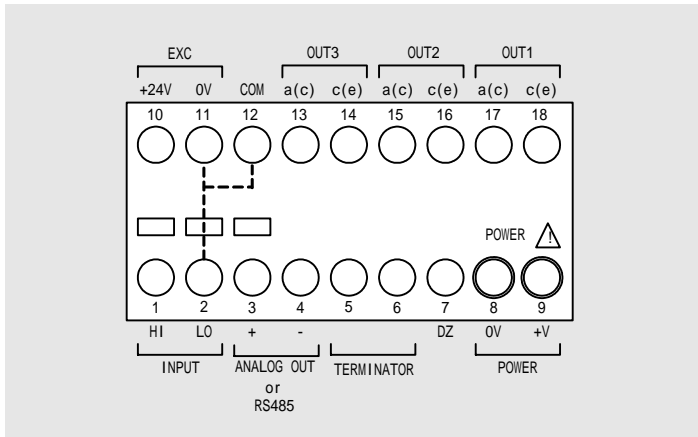
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AM-215A

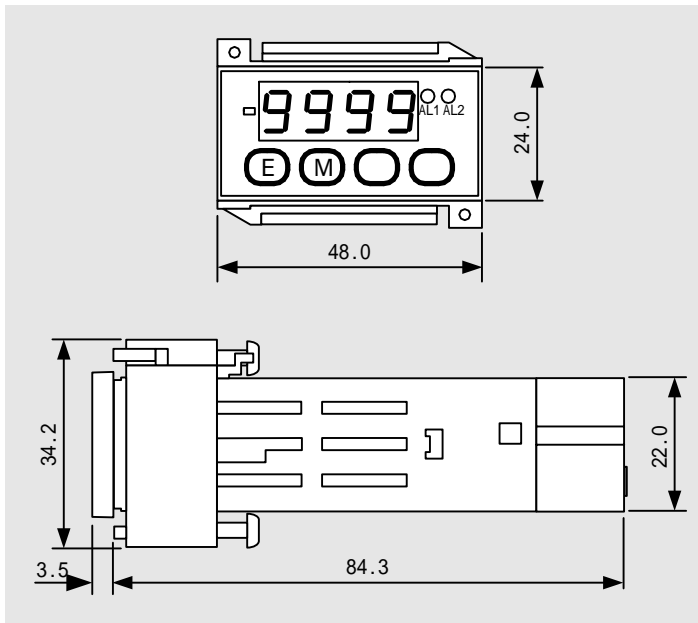
RS-485 unit

Synchronization method : Start-stop synchronization
 Communication method : 2-wire half-duplex (polarity selecting)
 Transfer rates : 38400 / 19200 / 9600 / 4800 / 2400
 Start bit : 1 bit
 Data length : 7 bits / 8 bits
 Parity bit : Even / Odd / None
 Error check : Block check character (BCC) checksum
 Stop bit : 1 bit / 2 bits
 Character code : ASC code
 Delimiter : CR+LF / CR
 Transmission control protocol : None
 Used signal name : Non-inverted (+), inverted (-)
 Max. connected units : Max. 31 meters
 Max. line length : 500 meters (total)

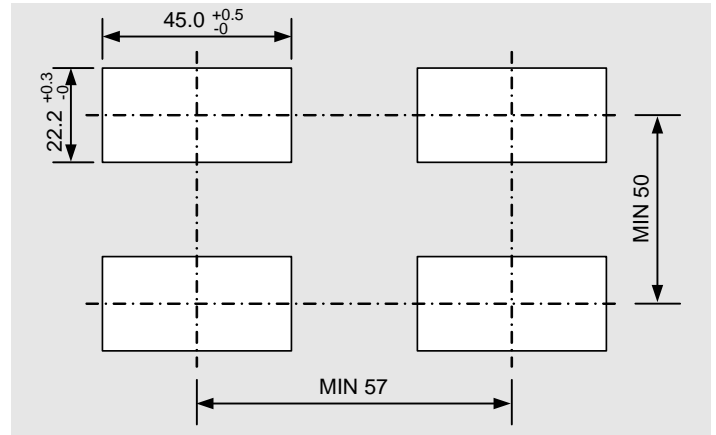
■ Connection Diagram



■ Dimensions



■ Panel Cut Out



■ Ordering Code

