



## AS-103A PROCESS PANEL METER

### DC Voltage Measurement

Model	Range	Display	Input Impedance	Input Protection
AS-103A-11	±199.9mV	Offset ±1000	100MΩ	±250V
AS-103A-12	±1.999V	Fullscale	100MΩ	±250V
AS-103A-13	±19.99V	100~1999	10MΩ	±250V
AS-103A-14	±199.9V	↓	10MΩ	±500V

Accuracy: ±0.1% rdg ± 2 digits (23°C ±5°C)

### DC Current Measurement

Model	Range	Display	Internal Resistance	Input Protection
AS-103A-21	±199.9µA	Offset ±1000	1KΩ	±10mA
AS-103A-22	±1.999mA	Fullscale	100Ω	±50mA
AS-103A-23	±19.99mA	100~1999	10Ω	±150mA
AS-103A-24	±199.9mA	↓	1Ω	±500mA
AS-103A-25	±1.999A	↓	0.1Ω	±3A

Accuracy: ±0.2% rdg ± 2 digits (23°C ±5°C)

### 1 ~ 5V Measurement

Model	Range	Display	Input Impedance	Input Protection
AS-103A-1V	1 ~ 5V	Offset ±1000 Fullscale 100~1999	1MΩ	±250V

Accuracy: ±0.1% rdg ± 2 digits (23°C ±5°C)

### 4 ~ 20mA Measurement

Model	Range	Display	Internal Resistance	Input Protection
AS-103A-2A	4 ~ 20mA	Offset ±1000 Fullscale 100~1999	51Ω	±100mA

Accuracy: ±0.1% rdg ± 2 digits (23°C ±5°C)

### Specifications

**Input Configuration:** Single ended  
**Input Bias Current:** 2nA (Typ.)  
**Conversion Rate:** 2.5/sec or 12.5/sec (50Hz), 15/sec (60Hz)  
**Normal Mode Rejection:** More than 40dB (50/60Hz)  
**Zero Stability:** Automatic Zero Adjustment  
**Zero Display:** Leading Zero suppression  
**Display:** 3 1/2 digit, LED, 14.2mm (.56")  
**Polarity:** A "-" is displayed automatically  
**Decimal Point:** Settable to any digit position  
**Overrange Indication:** Flashes 1999  
**Fullscale Adjustment:** 100 ~ 1999  
**Offset Adjustment:** ±1000  
**Span:** 2000 counts  
**Analog Output:** 0.1mV/digit  
**Output:** Open collector for all output, Sink current 10mA (Max)  
 Vce 30V (Max)  
**Data Output:** Parallel BCD (Isolation)  
**Polarity Output:** Current sink when display is (+)  
**Overrange Output:** Current sink when signal exceeds 1999  
**Print command Output:** Current sink for 1ms after measurement is finished  
**Power Supply:** 90 ~ 132VAC, 180 ~ 264VAC, 24VDC ±20%  
**Operating Temperature:** 0 ~ 50°C  
**Power Consumption:** 2VA  
**Weight:** 220g, 7.7 oz.  
**Dielectric Strength:**  
 Between input (Lo) and digital common, 500VDC.  
 Between power supply terminal and input terminal, earth, common, 1500VAC/1 min.  
**Insulation Resistance:** 500VDC 100MΩ at above terminals  
**Size:** 48mm (H) x 96mm (W) x 34.5mm (D)  
 1.89" (H) x 3.78" (W) x 1.36" (D)  
**Accessories:** 2 Connectors and manual included.



## AL-501A PROCESS PANEL METER

### Two-Wire Process Monitor

Model	Range	Display	Input Protection
AL-501A	4 ~ 20mA	Offset ±200 Fullscale 100~1999	±50mA

Accuracy: ±0.1% F.S. ± 1 digit (23°C ±5°C)

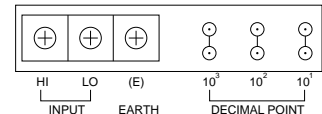
### Specifications

**Input Circuit:** Single ended  
**Conversion Rate:** 2.5/sec  
**Stability:** ±1 digit (max)  
**Display:** 3 1/2 digit, LCD, 12.7mm (.50")  
**Polarity:** A "-" is displayed automatically  
**Decimal Point:** Settable to any digit position  
**Overrange Indication:** Displays "+1" and blanks other digits  
**Full Scale Adjustment:** 100 ~ 1999  
**Offset Adjustable:** ±200  
**Voltage Drop:** 2.9V (at 20mA) Typ.  
 2.4V (at 4mA) Typ.  
**Power Supply:** Current loop power (4 ~ 20mA)  
**Operating Temperature:** 0 ~ 50°C  
**Weight:** 55g, 1.9 oz.  
**Dielectric Strength:** Between input (Lo), terminal & earth, 500VDC  
**Size:** 48mm (H) x 96mm (W) x 25mm (D)  
 1.89" (H) x 3.78" (W) x .98" (D)  
**Accessories:** Manual included.

### ORDERING GUIDE

#### AL-501A

### CONNECTION DIAGRAM (Screw Terminal)



### ORDERING GUIDE

AS-103A - [ ] [ ] [ ] [ ] - [ ]

BCD Out	Output	Power	Range Code
1 None	1 Display Only	1 90 ~ 132 VAC	11 ± 199.9mV
2 TTL	2 BCD (Parallel)	2 180 ~ 264 VAC	12 ± 1.999V
3 Open Collector	3 Analog (1mV/Digit)	4 24 VDC (Isolated)	13 ± 19.99V
			14 ± 199.9V
			21 ± 199.9µA
			22 ± 1.999mA
			23 ± 19.99mA
			24 ± 199.9mA
			25 ± 1.999A
			1V 1 ~ 5V
			2A 4 ~ 20mA

### CONNECTION DIAGRAM (Solder & Screw Terminal)

