>Model DN-AM310

This amplifier, which microprocessor is integrated in, converts resistance differences to DC voltage and is widely used for the various sensors like a strain gage type load cell.

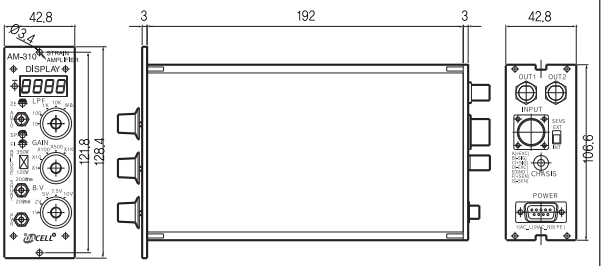
- Amplifier to convert strain gage signal from load cell to DC voltage
- Multi stage filter construction.
- The circuit compensated tamperature automatically
- Zero adjustment by volume.
- Function control by rotary s/w
- Voltage display : $3\frac{1}{2}$ digit

>SPECIFICATIONS

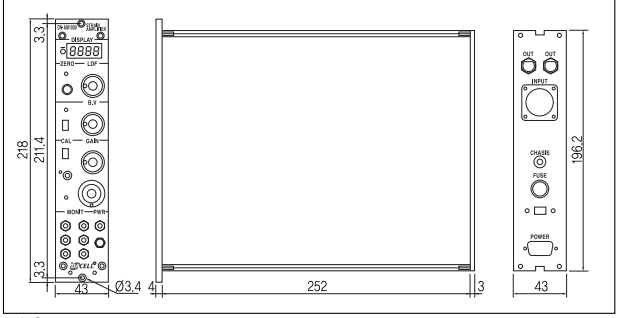
Specifications	Accuracy (DN-AM310)
Number of measuring point	1Point per each unit
Application gage resistance	100Ω~1kΩ
Measuring range	10V-1mV~20mV/V, 5V-2mV~40mV/V, 2.5V-4mV~80mV/V
Bridge voltage(BV/V)	Constant voltage DC5V, 10V
Zero set range	Adjustment by 10 turns VR(10%)
Output	0~±10VDC(load resistance ≧ 200Ω), 4mA~20mA(load resistance ≦ 300Ω)
Nonlinearity	±0.01% F.S.
Sensitivity adjustment	1000 multiplier (Max 1000)
S/N ratio	51dB
Frequency Response	DC20kHz(-3dB), Option:DC100kHz
Low pass Filter	10Hz, 100Hz, 1KHz, 10KHz, pass
Operating temperature	-10℃~+60℃
Temperature sensitivity	±0.03% F.S./℃
Calibration	0.5, 1.0, 1.5, 2.0, 2.5 mv/v (0.5mv/v=1000u strain)
Display	Digit
Size	44.5(W)×128.4(H)×166(D)mm
Power	220V, 50/60Hz

>DIMENSIONS

DN-AM310 unit:mm



DN-AM1000 unit:mm



★Specifications are subject to change without notice.

>Model DN-AM1000

The DN-AM1000 Series high precision, as the sensitivity dynamic signal amplifier independence or majority (Multi-channel) it will put in to the 19″ rack case and it will be able to use and it is planned. The voltage signal which is output comes to become rate (GAIN) until 1~11000 boats, answer back frequency the maximum 100kHz, the Low Pass Filter is becoming at 10Hz~10kHz.

■Feature

- Fully adjustable calibrated gain from 1 to 11000
- Accepts all strain gage inputs (foil or piezoresistive), potentiometer, LVDT, etc.
- Bridge excitation from 1 to 10Vdc (5 steps)
- Input impedance above 1GΩ
- Four-frequency low-pass active filter (10 to 10kHz)
- Automatic bridge balance (±4000με)
- Double shunt calibration (120Ω , 350Ω , 2000με, 200με)
- Outputs voltage display (7-Segment 4-digits LED)
- SIZE & WEIGHT

- Size : 218(H)×43(W)×258(D)mm
- Weight : Approx. 1.2kg

■Connector

- Signal input : MS3112E 14-19S, MS3116F 14-19P
- Signal output : BNC connector

Specifications	Accuracy (DN-AM1000)
Excitation	5 steps : 1V, 2V, 5V, 7.5V, 10V Current : 170mA, max. Remote sense error : 0.0005%/Ω at lead resistance (350Ω load) Noise and ripple : 0.05% p-p, max (dc 10kHz) Stability : ±0.02%/℃
Input	STRAIN GAUGE : quarter, half or full bridge (50 to 1000Ω), Built-in 120Ω and 350Ω dummy resister TRANSDUCER : Piezoresistive strain gauge types, potentiometer, DCDT transducers displacement
Amplifier	1st Gain : ×1, ×10, ×100, ×400, ×1000 5steps (accuracy ±1%) 2nd Gain : ×1 to ×11 continuously variable Vernier multiplier : 10-turn counting knob with direct readout (×1 to ×11) Frequence response : 100kHz (-3dB), max. Input resistance : 1GΩ, differential or common mode Input capacitance : 4pF, differential or common mode Input voltage range : ±10V, differential mode 12V-(G/2×Vd), common mode (Vd=actual differential input voltage) Bias current : ±30nA, typical, each input Common-mode rejection (G=100) : 100dB, min, dc to 60Hz with 1KΩ source imbalance Stability (G<1000) : 5ppm/℃, max. Noise (G=100) : 0.01 to 10Hz, 0.3μVp-p R.T.I
Filter	Characteristic : low-pass active 2-pole butterworth standard Frequencies (-3dB) : 10Hz, 100Hz, 1kHz, 10kHz, wide-band
Amplifier output (BNC connector)	Outputs : ±10V @100mA max. (out1); ±10V @10mA max. (out2) Linearity : ±0.01%
Voltage display	Display character : 7-Segment 4-digits LED Display range : 0.000V~±10.00V
Gain	5 steps Amplifier (×1, ×10, ×100, ×400, ×1000)
Frequency response	100kHz(-3dB), max.
Brisge balance	Auto ranging : ±4000με (2mV/V) Auto balance time : 1 second, typical Manual balance range : ±1V Storage : non-voltage data memory (EEPROM)
Low pass filter	4 steps 10Hz, 100Hz, 1kHz, 10kHz (-3dB)
Linearity	±0.01%
Stability	±0.01%℃
Shunt calibration	Bridge resistance 120Ω : 200με and 2000με calibrations Bridge resistance 350Ω : 200με and 2000με calibrations
Inout inpedance	more than 1GΩ
Power	AC 110V or 220V (switch selected) 50/60Hz, 7.5watts
3-wirecode (2-wire : power / 1-wire : Ground)	