Dynamic Strain Amplifier

> Model DN-AM310

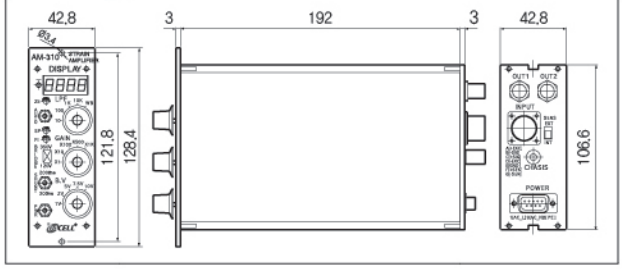
This amplifier, which microprocessor is integrated in, converts resistance differences to DC voltage and is widely used for the various sensors like a strain gage type load cell.

- 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 : 3½ digit

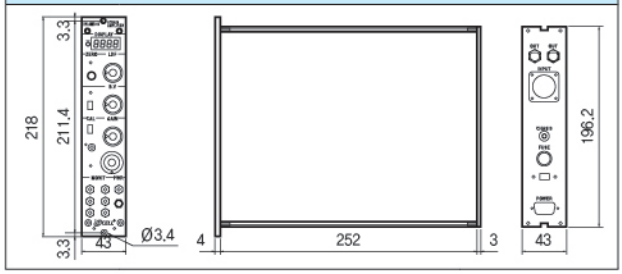
>SPECIFICATIONS

Specifications	Accuracy
Number of measuring point	1Point per each unit
Application Bridge resistance	100Ω ~ 1kΩ
Measuring range	10V-1mV~20mV/V, 5V-2mV~40mV/V, 2.5V-4mV~80mV/V
Bridge voltage(BV/V)	Constant voltage DC 5V, 10V
Zero set range	Abjustment by 10 turns VR(10%)
Output	0~±10VDC (load resistance≥200Ω), 4mA~20mA (load resistance Z 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	0℃ to 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 (W×H×D)	44.5×128.4×166mm
Power	220V, 50/60Hz

DN-AM310 unit:mm



DN-AM1000 unit:mm



> 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..

- 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

Specifications	Accuracy
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)	

★Specifications are subject to change without notice.