



Digital Strain Gauge Meter

PSD-01B

- High visibility and brightness large LED (character height approximately 20mm)
- Easy setting by flexible operable jog lever

Specification

Input Specification

Sensor Power Supply	Zero Adjustment Range	Span Adjustment Range	Selection Range	Accuracy (23°C ± 5°C, 35 to 85% RH)
5V	−1 to +1mV/V	1 to 3mV/V	+20mV/V	± (0.1% of FS+2digit)

※Accuracy when sampling speed is approximately 20 times/second or less

※Sensor power supply depending on parameter

Max. Resolution	0.5 μ V/digit (sensor power supply 5V)
Sensor Power Supply	5V±5% (30mA)
Application Sensor	350 Ω

General Specification

Measurement Part

Operation Method	$\Delta\Sigma$ conversion method
Sampling Speed	Max. approximately 1,000 times/second
Noise Rejection Ratio	NMR 50dB or more (50/60Hz)
Display Range	9999
Display	Red/green 7 segment display (height of character: approximately 20mm)
Polarity Display	"—" is automatically displayed when the calculation result is minus
Over Range Warning	OVER or -OVER for input signal of display range or more
Zero Display	Leading zero suppress
Decimal Point	Can be set at arbitrary position
Operating Temperature & Humidity	0 to 50°C / 35 to 85% RH (no dew condensation)
Storage Temperature & Humidity	−10 to 70°C/60% RH or less
Power Supply Voltage	AC power supply unit: AC 100 to 240V ± 10% DC power supply unit: DC 12 to 48V ± 10%
Power Consumption	Approximately 8VA / approximately 7W (DC power supply) at maximum load (AC power supply)
External Dimensions	96mm (W) x 48mm (H) x 97.5mm (D)
Weight	Approximately 450g
Withstanding Voltage (AC)	Between power supply terminal / input terminal / each output terminal AC 1500V one minute
Withstanding Voltage (DC)	Between power supply terminal / input terminal / each output terminal DC 500V one minute
Withstanding Voltage (Common)	Between each terminal of case AC 1500V one minute
Insulation Resistance	Between terminals above DC 500V 100M Ω or more
Accessory	Instruction manual

Comparison Output Specification

Common Specification

Range of Current and Voltage	Judgment Result
Measurement value > higher limit judgment value	HI
Lower limit judgment value ≤ measurement value ≤ higher limit judgment value	GO
Lower limit judgment value > measurement value	LO
Judgment Value Setting Range	−9999 to 9999
Hysteresis	1 to 999 digits can be set for each judgment value
Comparison Condition	Depends on sampling speed

Relay Contact Output

Quantity of Contact	Relay contact ×3
Contact Rating	AC 250V 2A, DC 30V 2A (resistance load)

External Control

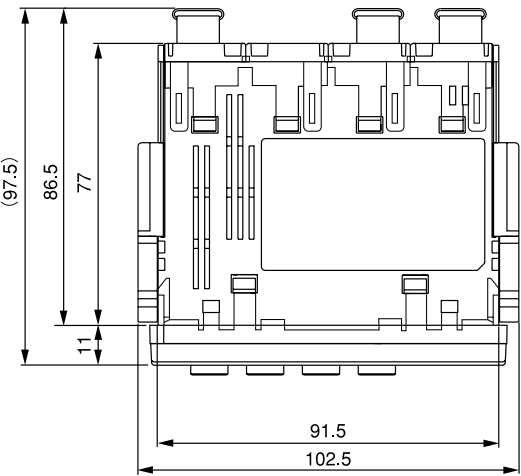
Start / Hold	Hold by S/H terminal, COM terminal, short circuit or same electric potential, start by release or 5V
Digital Zero	Digital zero function is turned ON by DZ terminal, COM terminal, short circuit or same electric potential
Peak Hold	Peak hold function is turned ON by PH terminal, COM terminal, short circuit or same electric potential
Relay Reset	Relay reset function is turned ON by R.RESET terminal, COM terminal, short circuit or same electric potential
Comparison Pattern Setting	8 patterns can be switched by COM terminal, control between P.SEL 0 and 2

Analog Output (PWM)

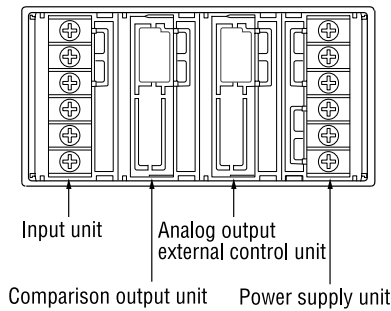
Analog Output (4-Wire)				
Output Specification	Type	Load Resistance	Accuracy (23°C ± 5°C, 35 to 85% RH)	Ripple
	0 to 1V	10kΩ or more	± (0.5% of FS)	50mVp-p
	0 to 10V			
	1 to 5V			
	4 to 20mA	550Ω or less		25mVp-p
Conversion Method	PWM conversion method			
Resolution	Equivalent to 13 bit			
Scaling	Digital scaling			
Response Speed	Approximately 0.5 second (10% → 90%)			

Dimensional Outline Drawings

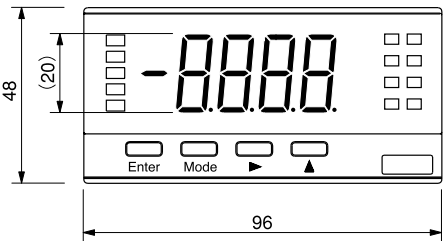
●Top View



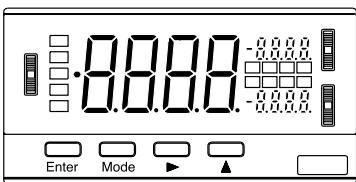
●Rear Face View



●Front Face

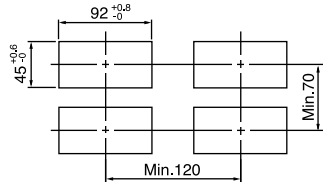


Single



Multiple

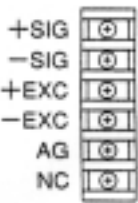
●Panel Cutting Hole



Thickness of panel board: 0.8 to 5.0mm

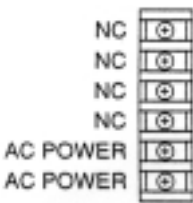
Connection Diagrams

●Input Unit

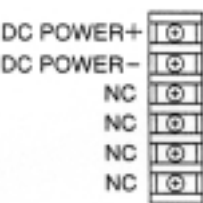


Load Cell output

●Power Supply Unit

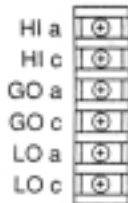


Alternative current



Direct current

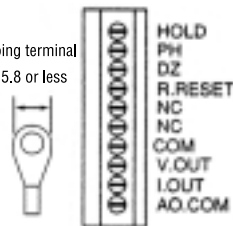
●Comparison Output Unit



Relay contact output

●Analog Output / External Control Unit

Adapted crimping terminal
5.8 or less 5.8 or less



Analog output external control

How to Order

PSD - 01B - ^{Power Supply}DC - ^{Display Board}M - ^{Display Unit}1

Blank : AC100 to 240V(Standard)
DC : DC 12 to 48V

Blank : Single(Standard)
M : Multiple

1 : psi	5 : atm
2 : kgf/cm ²	6 : KPa
3 : bar	7 : MPa
4 : torr	

※Specification is subject to change without notice.