

WGI-470AS1

Instrumentation Amplifier

3
-116

MEASURING INSTRUMENTS



Compact, 48×96 mm (Front surface) High-speed sampling: 2000 times/s

- 2-analog output: Simultaneous voltage and current output, individual scaling
- Peak hold: 5 types of peak hold
- Wide power supply voltage range: 100 to 240 VAC
- 3 sensitivity registrations: actual load calibration, sensitivity registration calibration, numerical value registration calibration
- TEDS function: Automatic sensitivity registration, TEDS file automatic sensitivity registration
- Option: RS-232C, RS-485, BCD output

High-speed, compact, high functionality instrumentation amplifier that incorporates a strain-gage transducer with optimized functionality in a small case.

Capable of wide range of measurement and control tasks such as press load measurement utilizing high-speed digital peak-hold function, load measurement utilizing high resolution, etc.

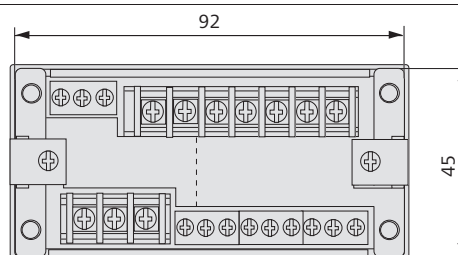
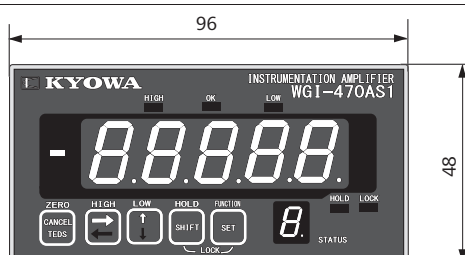
Models

Models	Options
WGI-470AS1-00	No option
WGI-470AS1-01	BCD output
WGI-470AS1-02	RS-232C
WGI-470AS1-03	RS-485

Specifications

Channels	1
Applicable Transducers	Strain-gage transducers
Compatible Bridge Resistance	87.5 to 1000 Ω (350 Ω, 4 in parallel connection)
Bridge Excitation	2 VDC, 10 VDC, switchable
Measuring Range	±3.2 mV/V (Including zero adjustment range)
Zero Adjustment Range	Within measuring range (Not retained when power supply interrupted)
Sampling Speed	2000 times/s
Resolution	64000 counts/input range in both polarities
Calibration Functions	Actual load calibration, sensitivity registration calibration, numerical value registration calibration
Display Functions	Main display: 5 digits (±99999), polar LED Sub display: 1 digit (9) Update speed: 0.13, 0.25, 0.51, 1.02, 2.03, 4.07, 8.16, and 16.28 s (Thinning display) Comparative determination: 3 points (HIGH, OK, LOW) Status display: 2 points (HOLD, LOCK)
Nonlinearity	Within ±(0.02%FS±1 digit)
Stability	Zero point: Within ±0.25 μV _{RTI} /°C Sensitivity: Within ±0.01%/°C
Smoothing Functions	Minimum scale: 1, 2, 5, 10, 20, 50, and 100 counts Moving average: 0, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, and 2048 times Filters: 10, 30, 100 Hz and FLAT
Comparison/Judgment Functions	Comparators: 2 points (HIGH, LOW) Hysteresis: Individual width settings possible Comparison mode: Normal/at hold Judgment: 1 point
Pattern Functions	Registers 4 groups of pattern files (comparative values) and enables switching through setting of functions.
Adding Functions	Settings range: ±99999
Original Value Display Functions	±3.20000 mV/V (6 digits) Accuracy: Within ±0.1%FS
Level Test Functions	Display of arbitrary values possible
Hold Functions	Digital peak hold Arbitrary point hold, peak hold, section definition hold, time specification hold, time specification continuous peak hold
Analog Output	Simultaneous dual output of voltage & current Data update: 2000/s (For simultaneous use of voltage and current, 1000/s) Voltage output: ±10 V, independent arbitrary scaling possible Current output: 4 to 20 mA, independent arbitrary scaling possible Automatic settings with rated capacity fully scaled possible (At sensitivity registration, at automatic sensitivity registration) Nonlinearity: Within ±0.1%FS
TEDS	Automatic sensitivity registration by reading TEDS data Automatic sensitivity registration by reading TEDS files
Control Input	4 points: Zero command, level test command, hold command, reset command
Control Output	3 points: HIGH, OK, LOW
Operating Temperature	-10 to 50°C
Operating Humidity	20 to 85%
Power Supply	100 to 240 VAC, 22 VA or less
Dimensions	96 W × 48 H × 144 D mm
Panel-cut Dimensions	92.2 ^{+0.4} _{-0.4} W × 45.2 ^{+0.4} _{-0.4} H mm Plate thickness 0.8 to 5.0 mm recommended
Weight	Approx. 400 g
Standard Accessories	Unit seal, instruction manual

■ Dimensions



Instrumentation Amplifiers

Outline

Amplifier

Checker

Other