

WGI-400A

Instrumentation Amplifier

- Compact
- General-purpose
- Wide Input Range

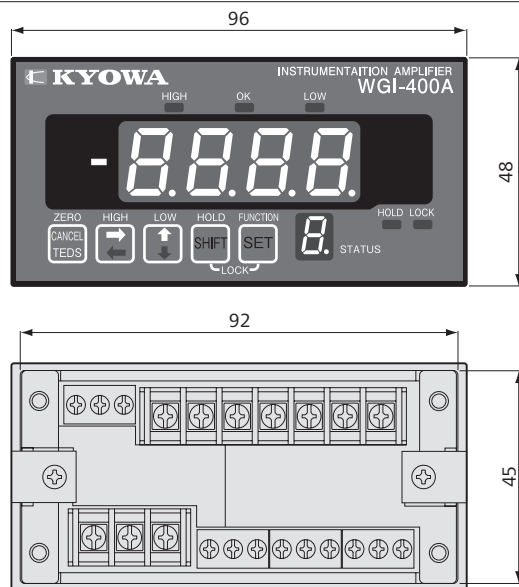


Compact, 48×96 mm (Front surface) Wide measuring range ± 3.2 mV/V

- 3 sensitivity registration modes (Actual load calibration, sensitivity-registered calibration, numerical value-registered calibration)
- Selectable 4 high/low limit patterns in memory
- Level test with desired set-value
- Wide power supply voltage range: AC power supply (100 to 240 V)
DC power supply (10 to 30 V) (Selectable)
- 3 optional functions: RS-232C, RS-485, BCD output

The WGI-400A is a compact general-purpose moderate price instrumentation amplifier providing basic functions required for measurement in combination with strain-gage transducers. The wide input range ensures usage without worrying about initial value of transducer. Furthermore, it provides new functions such as switchable relative value memory patterns and preset value-based level test.

■ Dimensions



Terminal screw: M3

Models

Models	Options	Models	Options
WGI-400A-00	AC operation with no optional function	WGI-400A-10	DC operation with no optional function
WGI-400A-01	AC operation with BCD output	WGI-400A-11	DC operation with BCD output
WGI-400A-02	AC operation with RS-232C	WGI-400A-12	DC operation with RS-232C
WGI-400A-03	AC operation with RS-485	WGI-400A-13	DC operation with RS-485

Specifications

● Measuring Section

Channels	1
Applicable Transducers	Strain-gage transducers
Applicable Bridge Resistance	87.5 to 1000 Ω (350 Ω , 4 in parallel connection)
Bridge Excitation	2 VDC, 30 mA or 4 VDC, 50 mA, switchable
Measuring Range	± 3.2 mV/V (Including zero adjustment range)
Sampling Rate	Approx. 50 times/s
Resolution	64000 counts/input range in both polarities
Calibration Modes	Actual load calibration, sensitivity-registered calibration, numerical value-registered calibration

● Indication Section

Indication Range	-9999 to +9999
Nonlinearity	Within $\pm 0.1\%$ FS ± 1 digit
Zero Stability	Within $\pm 0.5 \mu V_{R_{in}}$ / $^{\circ}C$
Sensitivity Stability	Within $\pm 0.01\%$ FS/ $^{\circ}C$
Decimal Point	Put to anywhere possible
Zero Functions	Any value in the input range is set to digital zero; execution by key operation or external contact signal
Minimum Scale	Selectable from 1, 2, 5, 10, 20, 50 or 100
Moving Averaging Functions	Selectable from OFF, 2, 4, 8, 16, 32, 64 or 128
Zero Tracking	By setting the time, width and operating range
Zero Approximation	A desired value is preset to let the indicator read 0 for any signal in a range of 0 to the preset value.
Adding Functions	Indicated value is set to a desired value (When executing zero compensation).
Original value display Functions	Enable to display input value in mV/V
Level Test	Display of arbitrary values possible

● Control Input

Input Signals	4 (ZERO command, level test command and 2 pattern select commands)
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● Control Output

Output Signals	3 (HI, OK and LO)
Output Modes	Open collector
Full Scale Output	30 VDC, 20 mA (Resistive load)
Comparison/Judgment	Based on high/low limits
Judgment Result	1 point (OK)
Relative Value Memory Patterns	4 patterns, switchable

● Analog Output

Output Signals	± 10 V or 4 to 20 mA, switchable
Nonlinearity	Within $\pm 0.1\%$ FS
Scaling	Set freely
Response Speed	Approx. 0.25 s

● Others

EMC Directive	EC61326-1 (class A)
Low Voltage Directive	EN61010-1, EN61010-2-030 (Installation Category II, Pollution Degree 2, Measurement Category O)
Power Supply	100 to 240 VAC, or 10 to 30 VDC (To be specified when ordering)
Power Consumption	Approx. 6 VA (AC operation), approx. 8 W (DC operation)
Operating Temperature	-10 to 50 $^{\circ}C$
Dimensions	96 W x 48 H x 142 D mm (With no option)
Panel-cut Dimensions	92.2 $^{+0.4}$ x 45.2 $^{+0.4}$ mm
Panel thickness	0.8 to 5.0 mm
Weight	Approx. 300 g

Standard Accessories Unit seal, Instruction Manual

Optional Accessories

AC power cables P-23 (For 100 VAC), P-28 (For 200 VAC)
BCD output cable N-43 (2 m)
BCD output printer cable N-44 (50 cm)