



## Instrumentation Amplifier

# WGA-680A

**NEW**

A high-performance instrumentation amplifier for strain gage type transducers

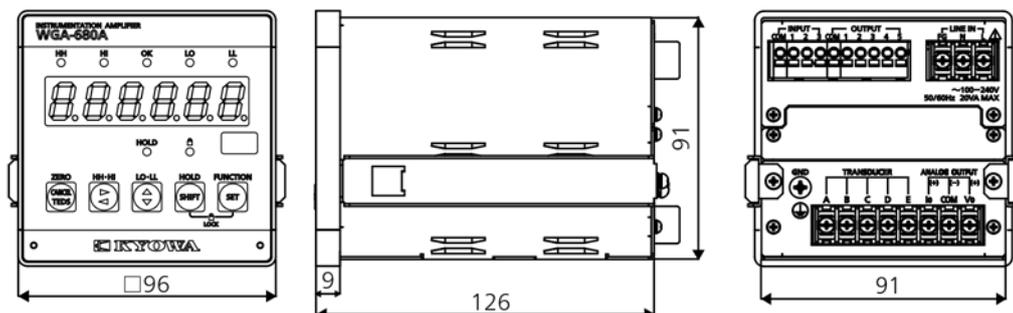


- High-performance processing (Sampling rate: 4000 times/s, ADC resolution: 24 bits )
- Substantial comparison functions (Extra high, high, OK, low, and extra low)
- Analog output (A DAC is equipped)
- Various optional interfaces (CC-Link, RS-485, RS-232C, and BCD)
- Display in Red, green, or orange (To respond different situations)

### Line-up

Model	Power supply	Option	Model	Power supply	Option
WGA-680A-00		None	WGA-680A-10		None
WGA-680A-01		BCD/TEDS	WGA-680A-11		BCD/TEDS
WGA-680A-02	100 to 240 VAC	RS-232C/TEDS	WGA-680A-12	10 to 30 VDC	RS-232C/TEDS
WGA-680A-03		RS-485/TEDS	WGA-680A-13		RS-485/TEDS
WGA-680A-04		CC-Link	WGA-680A-14		CC-Link

### Dimensions (WGA-680A-00)



# Specifications

<b>Number of measuring channel</b>	1	<b>Hold function</b>	Digital peak/bottom hold(Without analog peak/bottom hold) Type: Arbitrary point hold, peak hold, bottom hold, peak to peak hold, specified interval peak hold, specified time peak hold, specified interval bottom hold, specified time bottom hold, specified interval peak to peak hold, and specified time peak to peak hold. Delay: 0.00 to 9.99 s Detection time: 0.01 to 9.99 s											
<b>Applicable transducer</b>	Strain gage type transducers (full bridge)		<b>Display</b>	±99999 (Decimal point can be set anywhere) Display: Switchable color of red, green, orange 7-segment 14 mm high LED Update: 0.12, 0.24, 0.49, 0.98, 1.95, 3.90, 7.80, and 15.6 times/s @normal mode Display mode: Normal / hold Comparison determination: 5 points(HH, HI, OK, LO, and LL) Status display: 2 points (HOLD, LOCK)										
<b>Applicable bridge resistance</b>	87.5 Ω to 1 kΩ (Up to 4 unit of 350 Ω transducers can be connected in parallel)			<b>Analog output (D/A output)</b>	Voltage output: ±10 V( Load resistance: 2 kΩ or more) (Any scaling possible) Current output: 4 to 20 mA( Load resistance: 500 Ω or less, 4-20 mA output is in proportion to 0-10 V) Conversion rate: 4000 times/s Nonlinearity: within ±0.1%FS Setting items: display value of zero, display value of full scale									
<b>Excitation voltage</b>	2 or 10 VDC, selectable				<b>Control input</b>	Number of points: 3 Command: Zero, hold, and reset Signal format: Non-voltage contact signal, or open collector(Capacity: 12 VDC, 5 mA or more)								
<b>Measuring range</b>	-3.2 mV/V to 3.2 mV/V (Including zero adjustment range)					<b>Control output</b>	Number of points: 5 Type: HH, HI, OK, LO, and LL Output format: Open collector (Capacity: 30 VDC, 20 mA or less)							
<b>Zero adjustment range</b>	Within measuring range ( not saved when the power shut down)						<b>Level test function</b>	Display of arbitrary values possible Display adding function: Disable, enable Setting range: -99999 to 99999 Level test: ON, OFF						
<b>Nonlinearity</b>	Within ±(0.02%FS + 1 digit)							<b>Power Supply</b>	100 to 240 VAC, 50/60 Hz, 20 VA or less 10 to 30 VDC, 10 W or less					
<b>Stability</b>	Zero point: Within ±0.25 μV <sub>RTI</sub> / °C Sensitivity: Within ±0.01% / °C								<b>Dimensions</b>	96 W × 96 H × 126 D mm(Excluding protrusions)				
<b>Sampling rate</b>	4000 times/s									<b>Panel cutout</b>	92 × 92 mm			
<b>ADC resolution</b>	24 bits										<b>Weight</b>	Approx. 750 g (Excluding options)		
<b>Calibration function</b>	Actual load calibration, sensitivity registering calibration, and numeric value registering calibration											<b>Operating conditions</b>	Temperature range: -10 to 50 °C Humidity range: 20 to 80%RH (noncondensing)	
<b>Smoothing function</b>	Filter: 10, 30, 100, and 300 Hz Attenuation: -12 ±1 dB/oct. Moving average: 0, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, and 2048 times Minimum scale: 1, 2, 5, 10, 20, 50, 100, 200, 500, and 1000 counts												<b>EMC directive</b>	EN61326-1 (Class A)
<b>Zero compensation</b>	Auto zero compensation: digital zero within the setting range Approximated zero compensation: Display zero when the reading is in a preset range of 0 to 9													<b>Low voltage directive</b>
<b>Adding range</b>	-99999 to 99999	<b>RoHS directive</b>												
<b>Original value display</b>	-3.2000 mV/V to 3.2000 mV/V (5-digit) Accuracy: Within ±0.1%FS													
<b>Comparison functions</b>	Number of setting points: 4 Pattern: Register 4-group pattern files, switch them by setting function on the front panel Type: Extra high(HH), high(HI), OK, low(LO), extra low(LL) Setting range: -99999 to 99999 Hysteresis: 0 to 99999 Mode: Normal/hold High/Low Assignment: Any comparator can be assigned as your desired type													

## Accessories

Standard accessories  
Instruction manual (CD)  
Unit seal  
Driver(-)

Optional accessories  
AC power cable P-23 for 100 VAC  
AC power cable P-28 for 200 VAC  
Input cables U-29 to 32, 6-conductor with an NDIS connector  
Input cables U-33 to 36, 4-conductor with an NDIS connector

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#### Safety Precautions

Be sure to observe the safety precautions given in the instruction manual, in order to ensure correct and safe operation.

• Specifications are subject to change without notice for improvement.

E\_H27-07d



JQA-0821  
JQA-EM4824

Manufacturer's Representative