

WGC-140A

● Compact Multichannel Unit

4-channel Instrumentation Amplifier



High-speed processing at 2 ms, a compact 4-channel instrumentation conditioner

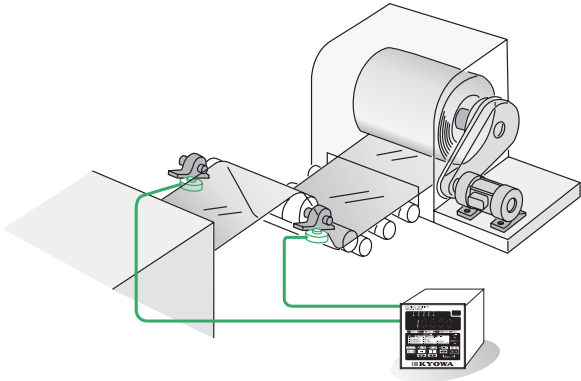
- Up to 4 units of 350 Ω strain-gage type transducers connected independently to respective amplifier circuits.
- Circuits are designed to make it difficult for a channel with transducer trouble to affect other channels.
- Switchable indicated value, channel to channel or the total
- Analog voltage output of all channels and the total
- High/low limit comparator for the total value
- High-speed output suitable for control, I/O delay approx. 10 ms
- Sensor check and self-test functions
- Indication range-19999 to 19999 with decimal point anywhere
- Compact & lightweight, moderate price, adopted 96x96 DIN size.

Thus, the WGC-140A is suitable for measurement and control of the load applied to each column of press and the total load or for tension control by measurement of load balance and total load in various fields. In addition, the WGC-140C enables multiplication of the total value by a coefficient, thereby facilitating the operator to take emergent countermeasures against transducer trouble and change the coefficients easily.

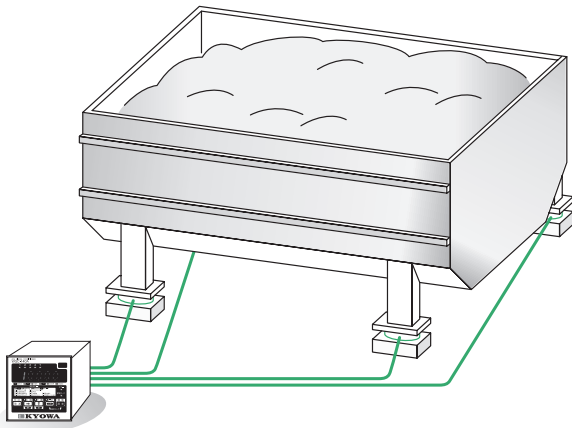
Specifications

Channels	Max.4
Applicable Transducers	Strain-gage transducers
Applicable Bridge Resistance	350 to 1000 Ω
Measuring Range	±3 mV/V (Including tare)
Input LPF	150 Hz
Bridge Excitation	5 VDC
Digital Zero	Set at any point in the measuring range
Calibration	By inputting the value by every channel By applying an actual load by every channel
Indicator	±19999 (Decimal point to be put anywhere, the same position is applied to all channels.) Character height: 14 mm Red LED Indicated value: Measured value of a channel selected from 1 to 4 Total of measurements of channels 1 to 4
Calculation Speed	2 ms (500 times/s)
Nonlinearity	Within ±0.05% FS
Zero Stability	Within ±0.5 μV _{RTI} /°C
Sensitivity Stability	Within ±0.01%/°C
High/Low Limit Comparator	Setting points: 2 (High/low limits of total value) Setting range: ±19999 Max. hysteresis width: 0 to 19999 settable Output modes: Open collector Load capacity: 30 VDC, 20 mA (Resistive load) Response speed: 10 ms or less
Smoothing Functions	Minimum scale: Selectable from 1, 2, 5, 10, 20, 50, 100, 200, 500 or 1000 counts Moving averaging functions: Selectable from 2, 4, 8, 16, 32, 64, 128 or 256 times
Adding Functions	Selectable in a range of ±19999
Original Value Measurement	±3 mV/V or more
Control Input	Input signals: 6 (4 calculation channel select commands, 1 each ZERO and CHECK commands) Output Modes: Non-voltage contact or open collector (It should enable application of 12 VDC and current flow of 5 mA.)
Control Output	Output signals: 7 (1 HEALTHY signal, 4 ABNORMAL signals and high/low limit signals) Output modes: Open collector Load capacity: 30 VDC, 20 mA (Resistive load)
Analog Output	Output signals: 5 (Signals of 4 channels and the total) Output voltage: ±10 V Withstand voltage: 250 VAC for one minute Resolution: 13 bits Nonlinearity: Within ±0.1% FS Conversion rate: 500 times/s Setting values: Indicated value with 0 V output (±19999) Indicated value with 10 V output (±19999)
Check Functions	Self-test: Tests the program checksum and memory. Transducer test: Checks each channel for the bridge current, over-input and disconnection of transducer cable.
I/O Terminal Board	Transducer Input: NDIS connector plugs Power Connector, etc.: M3 screw terminal board (Applicable crimp-style terminal V1.25-3 or the equivalent) Data Output Terminal: Connector 57-40360 (DDK) or the equivalent
Operating Temperature	-10 to 55°C
Operating Humidity	20 to 85%RH (Non-condensing)
Power Supply	100 to 240 VAC±10%, approx. 30 VA or less
Dimensions	96 x 96 x 139 mm (Excluding protrusions)
Weight	Approx. 1.2 kg
Panel-cut Dimensions	92 x 92 mm
Standard Accessories	Unit seal, Instruction manual
Optional Accessories	AC power cables P-23 for 100 VAC P-28 for 200 VAC

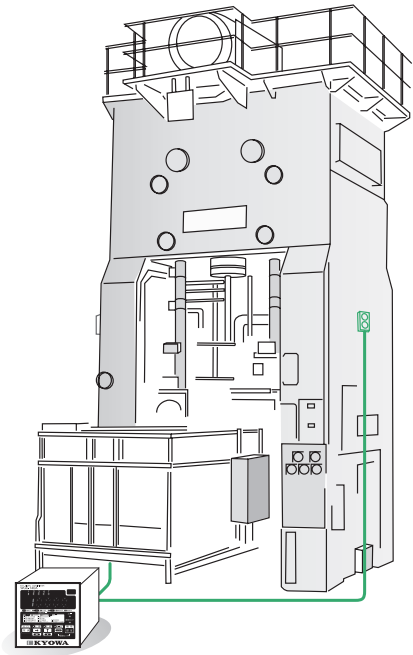




Steel production Line **Tension Control**

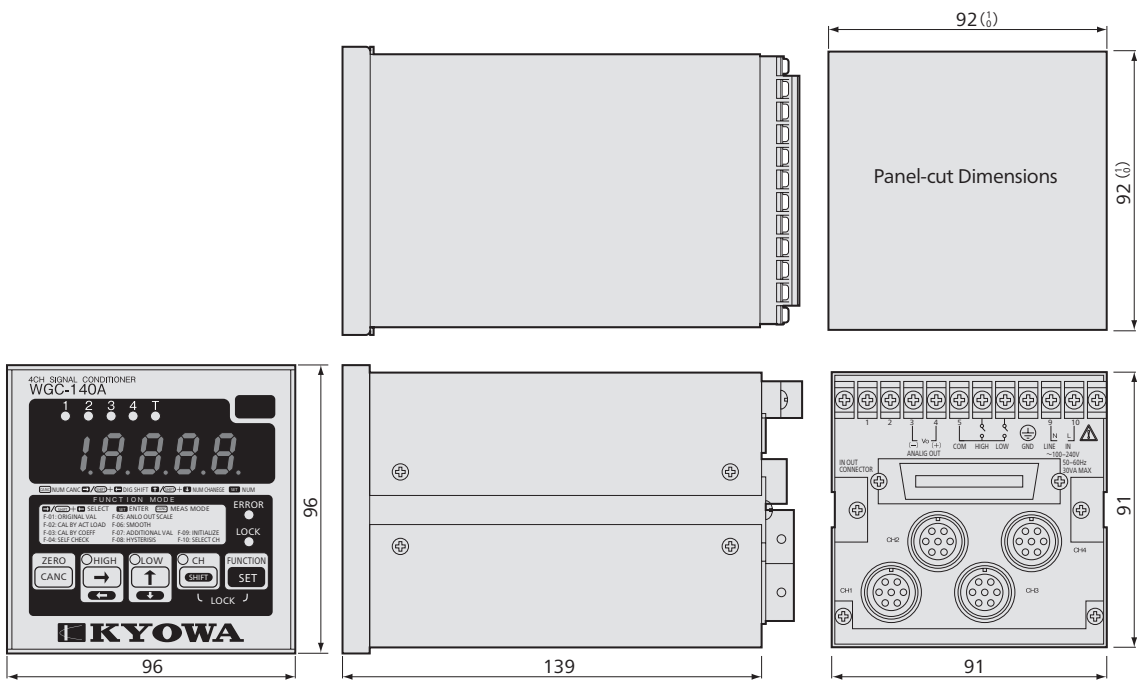


Tank/Hopper Scale **Weighing with 4 Load Cells**



Press **Force Control**

■ Dimensions



Terminal screw: M3

