WDC-200C Series Instrumentation Conditioners

●For Long-Distance Transmission

Noise Resistnt | V A Simlt. Out. | Incorporated

The WDC-200C series is instrumentation conditioners for use with strain gage load cells. The dual output enables simultaneous output of voltage and current signals.
The originally developed circuit automaticaly cancels any zero drift of the amplifier circuit and unnecessary thermoelectromotive force generated in the input system including a load cell, junction box and cable, thereby ensuring stable operation irrespective of ambient temperature changes.
To enable use in a wide range of instrumentation fields, abundant additional functions are available including a remote zero adjuster, remote calibration circuit setting device, input/output protector and isolation amplifier.
Designed to be mounted into the operation panel, the WDC-200C series has the front panel composed of input and output terminals only, thereby facilitating instrumentation task and operation. In addition, the compact package ensures increased efficiency of the operation panel.
The WDC-200C series is suitable as a long-distance transmission preamplifier or transmitter.

Features

- Panel-incorporated design with terminal boards on the front panel facilitates handling and maintenance.
- Compact design ensures efficient use of the panel.
- Original circuit design ensures excellent zero stability.
- Output is not affected by thermoelectromotive force in the input system, thereby ensuring stable operation irrespective of ambient temperature changes.
- Dual analog output
- Noise resistant and suitable for use on production lines
- Abundant additional functions
- Suitable as long-distance transmission preamplifier or transmitter

Models

Function / Model	Conditioner + Analog Output	Additional Functions			
		2-Step Setting Device	Remote Zero Adjuster	Remote Calibration Circuit	Polarity Inverter
WDC-200C	●			●	
WDC-202C	●		●	●	●
WDC-210C	●	●		●	

Specifications

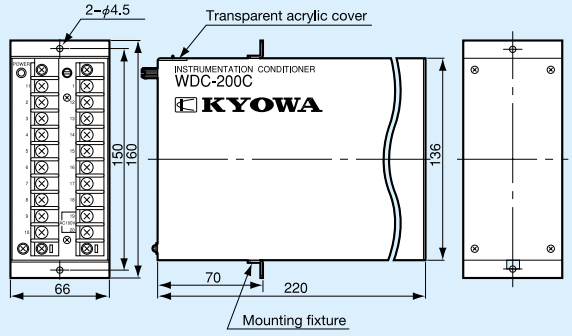
Number of Measuring Channels: 1
Applicable Transducers: Load cells with bridge resistance 350 Ω (up to 4 units can be connected in parallel.)
Measuring Range: ±0.25 mV/V to ±2 mV/V or more
Bridge Excitation Voltage: Applied peak voltage 10 VAC, line frequency-synchronized system
Zero Adjustment Range
Coarse adjustment: 3 steps of ±0.5 mV/V, ±1.0 mV/V and ±1.5 mV/V for tare compensation
Middle adjustment: Continuously variable between 0 to ±0.5 mV/V or more
Span Adjustment Range
Coarse adjustment: 3 steps
±5 V output for ±0.25 mV/V input
±5 V output for ±0.5 mV/V input (standard sensitivity)
±5 V output for ±1.0 mV/V input
Middle adjustment: Continuously variable between 1/1 to 1/2 or more
Fine adjustment: Continuously variable between 1/2 to 23/25 or more
Output: 0 to ±5 V (unbalanced load 5 kΩ or more)
Calibraration Value
Coarse adjustment: Continuously variable between +0.25 mV/V and +1.0 mV/V or more
Fine adjustment: Continuously variable between 1/2 to 23/25 or more

Analog Output
Number of Output Channels: 2 (1 each for current and voltage)
Voltage Output: 0 to ±5 V, unbalanced load 5 kΩ or more
Current Output: 4 to 20 mA, unbalanced load 400 Ω or less

Environmental & Power Supply, etc.
Operating Temperature/Humidity Range: 0 to 40°C, 85% RH or less (noncondensing)
Power Supply: AC line, 50/60 Hz, 50 VA or less
Dimensions: 66 x 136 x 220 mm (maximum but not including mounting fixture)
Weight: Approx. 1.5 kg

Additional Functions
- Setting Device
  Number of Setting Channels: 2
  Setting System: Analog potentiometer
  Contact Output: No-voltage a-contact, 1 circuit each
  Contact Capacity
  24 VDC 5 A or less (non-inductive load)
  250 VAC 3 A or less (non-inductive load)
- Remote Zero Adjuster
  Adjustment Range: ±1/2 full scale or ± full scale with standard sensitivity
  Adjustment Signal: External no-voltage a-contact input, contact capacity 24 VDC 0.1 A
- Remote Calibration Circuit
  Calibration Signal: External no-voltage a-contact input, contact capacity 24 VDC 0.1 A
- Polarity Inverter
  Polarity Inverting Signal: External no-voltage a-contact input, contact capacity 24 VDC 0.1 A

Dimensions



Panel Cut Dimensions
150 x 68 mm (for mounting 1 unit)
150 x 73 mm each/unit (for mounting muliple units)