Move into the future with reliable measurements

KYOWA

NEW

CTRS-CVPS010A

Voltage Unit for CTRS-100 Series

Sensor excitation 10 V compatible

MEMS sensors connectable without external power.
Input circuit isolation. Hardly affected by common mode noise.

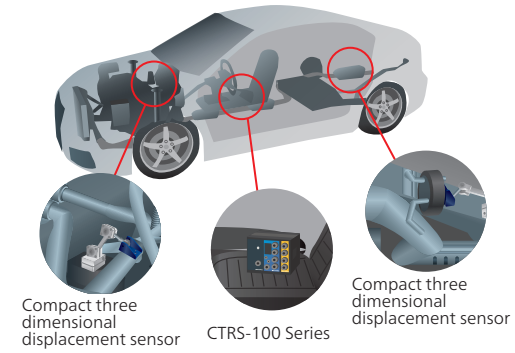
Compatible Sensors

- Displacement Transducer DTT-A
- MEMS sensors
- Voltage output transducers

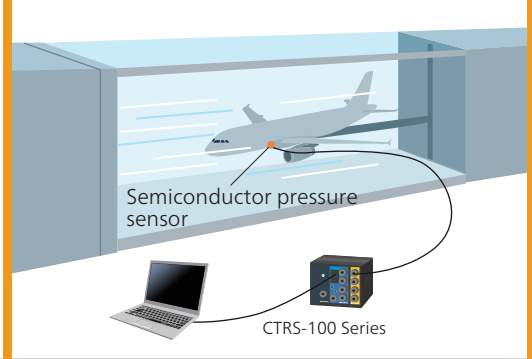
etc.

*You cannot measure data by using the voltage unit only.
*For details, contact us.

Applications



To measure relative displacements between vehicle and engine and between vehicle and muffler



Wind tunnel testing of a model

Specifications

Channels	4 (Isolated input circuit)
Input Connector	
Connector Shape	NDIS4109 (Small round 9 pins) receptacle Model: EPRC07-RX9FNDIS
Compatible Plug	NDIS4109 (Small round 9 pins) plug Model: EPRC07-P9MNDIS
Measuring Targets	Voltage
Sensor Excitation	5, 10 VDC, OFF Accuracy: Within ±0.2% Channel 1 and 2: A maximum of 35 mA per channel can be output. Channel 3 and 4: A maximum of 15 mA per channel can be output.
Input Impedance	(1.8 MΩ + 1.8 MΩ) ±10%
Input Modes	Balanced differential input
Measuring Range	
Setting Method	Any range method or OFF
Settable Range	Minimum: 0.2 V Maximum: 50 V
Setting Steps	0.2 to 10 V: 0.1 V steps 10 to 50 V: 1 V steps
Range Accuracy	Within ±0.2% FS (Apply to an ambient temperature of 23 ±5°C and a stable temperature after 30 minutes of preheating time.)
Nonlinearity	Within ±0.1% FS
Temperature Stability	
Zero Point	Within ±(0.009% FS + 0.21 mV)/°C
Sensitivity	Within ±0.03%/°C
Time Stability	
Zero Point	Within ±0.05% FS/8 h
Sensitivity	Within ±0.05%/8 h
Zero Suppress	
Setting	For each channel, ON, OFF, or NONE can be selected. ON: Execute zero suppress and set the measured value to zero. OFF: Do not execute zero suppress again. NONE: Zero suppress can be disabled to check the initial unbalanced value (Input voltage).
Operating Method	Execute the zero suppress by using the control software or operate the special-remote-control BAL switch.
Adjustment Method	Auto balance (Saved in nonvolatile memory)
Adjustment Range	When 0.2 to 0.9 V range: Within ±5 V When 1 to 50 V range: Within ±10 V
Accuracy	Within ±0.1% FS
NONE Accuracy	When 0.2 to 0.4 V range: Within ±1 mV When 0.5 to 50 V range: Within ±0.2% FS (Apply to an ambient temperature of 23 ±5°C and a stable temperature after 30 minutes of preheating time.)

Input Voltage Range	Within ±60 V
Common-mode Input Voltage	Within ±20 V
Absolute Maximum Rating	
Input	±70 V
Frequency Response	DC to 20k Hz (At 20k Hz input, -3 ±1 dB)
LPF	
Transfer Characteristics	5th-order Butterworth
Cutoff Frequency	10, 20, 50, 100, 200, 500, 1k, 2k, 5k, 10k Hz, FLAT, AUTO When FLAT is set, the cutoff frequency is set to approx. 25k Hz. When AUTO is set, the cutoff frequency is set to approx. 1/4 the specified sampling frequency.
Amplitude Ratio at Cutoff Point	-3±1 dB
Attenuation Characteristics	When the cutoff frequency is less than 5k Hz: -30 ±3 dB/oct. When the cutoff frequency exceeds 5k Hz: -30 (+3, -12) dB/oct.
HPF	
Cutoff Frequency	0.2, 1 Hz and OFF
Attenuation Characteristics	-6 dB/oct.
AD Conversion	
Resolution	24 bits
Sampling Method	Synchronous sampling of all channels
Indicator	Status LED, channel-status LED
Other Functions	
TEDS	Read the TEDS information and apply it to the measurement conditions. (Only when online control is performed by a PC.)
Isolation	Between input to GND (Non-isolated between channels), withstand voltage 250 VAC
Power Supply	Supplied by the CTRS-100A or CTRS-BATT010A
Power Consumption	Approx. 3.1 W (When supplying 12 VDC)
Operating Temperature	-10 to 50°C
Operating Humidity	20 to 90% (Non-condensing)
Storage Temperature	-20 to 60°C
Vibration Resistance	49.0 m/s^2 (5 G), 5 to 200 Hz
Shock Resistance	490 m/s^2 (50 G), 11 ms or less, half sine wave
Dimensions	26.6 W × 92 H × 94 D mm (Excluding protrusions and protectors)
Weight	Approx. 240 g
Utility Nuts	Size: M4, 6 places

Standard Accessories

Stack-connector cap (female)
Stack-connector cap (male)
Input connector caps × 4

Optional Accessories

4109P-S32-7(6-conductor shielded) U-136
4109P-BNC PLUG U-137
4109P-BNC jack U-129
4109P-R05 JACK U-138

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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.
- Do not use in locations subject to significant water, dampness, steam, dust, or flammable gases.
  Doing so may lead to fire, electrical shock, or malfunction.

JQA-0821
JQA-EM4824

- Specifications and designs are subject to change without notice.
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