

Voltage Transducers EVS30A

Voltage transducer uses special Isolation Barrier technology to measure AC and DC or Pulsed voltages and TRMS treatment, the output signal can be standard RMS voltage or current. The primary input voltage and the output signal is highly electric isolated. It can be used in Power Utility, Converters, Traction, Telecom, Oil & Gas, and New energy fields.



Features

- One touch split core structure
- Isolation measurement CATIII
- Three Installation type: Panel mounting / DIN rail mounting / Cable tie mounting
- Insulating plastic case recognized under UL94-V0
- Complied with CE and RoHSIII

Advantages

- Low power consumption with high accuracy
- Easy mounting by Split-core structure
- No insertion losses
- DC Immunity

Applications

- Uninterruptible Power Supplies (UPS)
- Monitoring and measuring Power supplies for Telecom
- Switched Mode Power Supplies (SMPS)
- Battery supplied applications
- Chopper / Inverter monitoring
- DC Power Meter

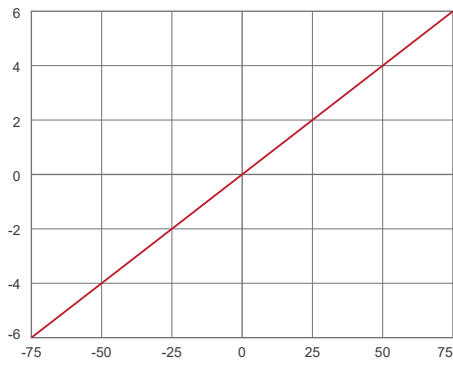
Specification

SPEC	MODEL	EVS30 -0050	EVS30 -0125	EVS30 -0150	EVS30 -0250	EVS30 -0500	EVS30 -0750	EVS30 -1000	EVS30 -1500	EVS30 -2000
	Rating Current		5A	10A	15A	20A	25A	30A	50A	
Maximum Current		7.5A	15A	22.5A	30A	37.5A	45A	75A		
Output Voltage	±4 V, 1% at rated current(F.S) RL=10KΩ									
Offset Voltage	±30 mV max less than									
Noise Level	< 20mVp-p									
Output Linearity	±1% rated current(F.S)									
Hysteresis (FS→0)	±15mV									
Power Supply	±15V (±5%) 25mA									
di/dt Response Time	2 μ sec (Typ.) at di/dt=F.S/μ sec									
Output voltage temperature coefficient	Typ ±0.1% / °C Max ±0.12% / °C					Typ ±0.08% / °C Max ±0.1% / °C				
Residual voltage temperature coefficient	±1.2mV / °C					±1mV / °C				
Insulation Withstand Voltage	AC 1500V / 1min.									
Insulation Category	CAT III 600VAC									
Insulation Resistance	DC 500V / 500MΩ max									
Operating Condition	-25°C~+75°C, 85% RH non-condensing									
Storage Condition	-35°C~+90°C, 85% RH non-condensing									
Standard lead wire	400mm, 26AWG * 4C									

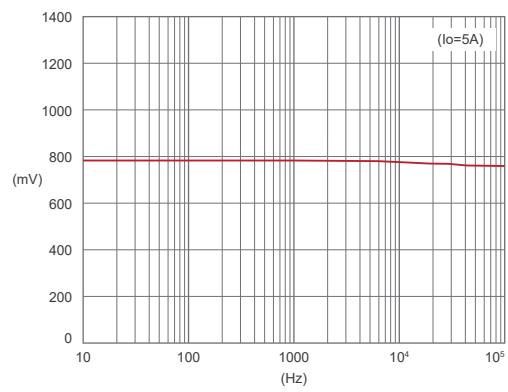
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Graphs

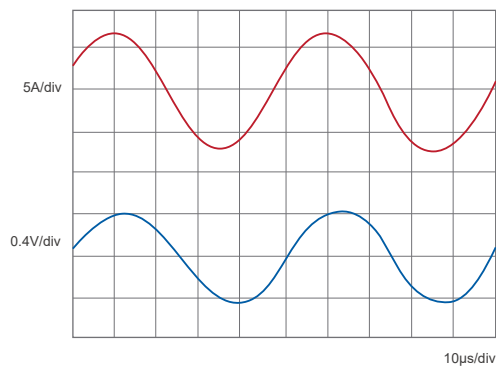
Output Voltage Characteristic



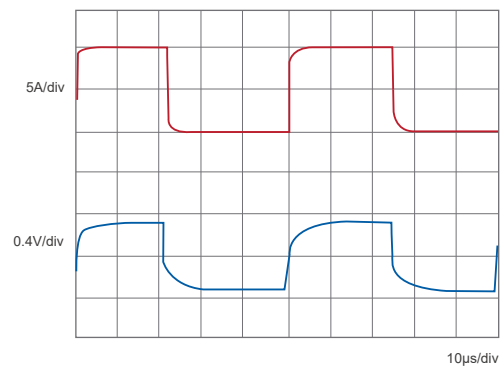
Frequency Characteristic



Output Wave-1



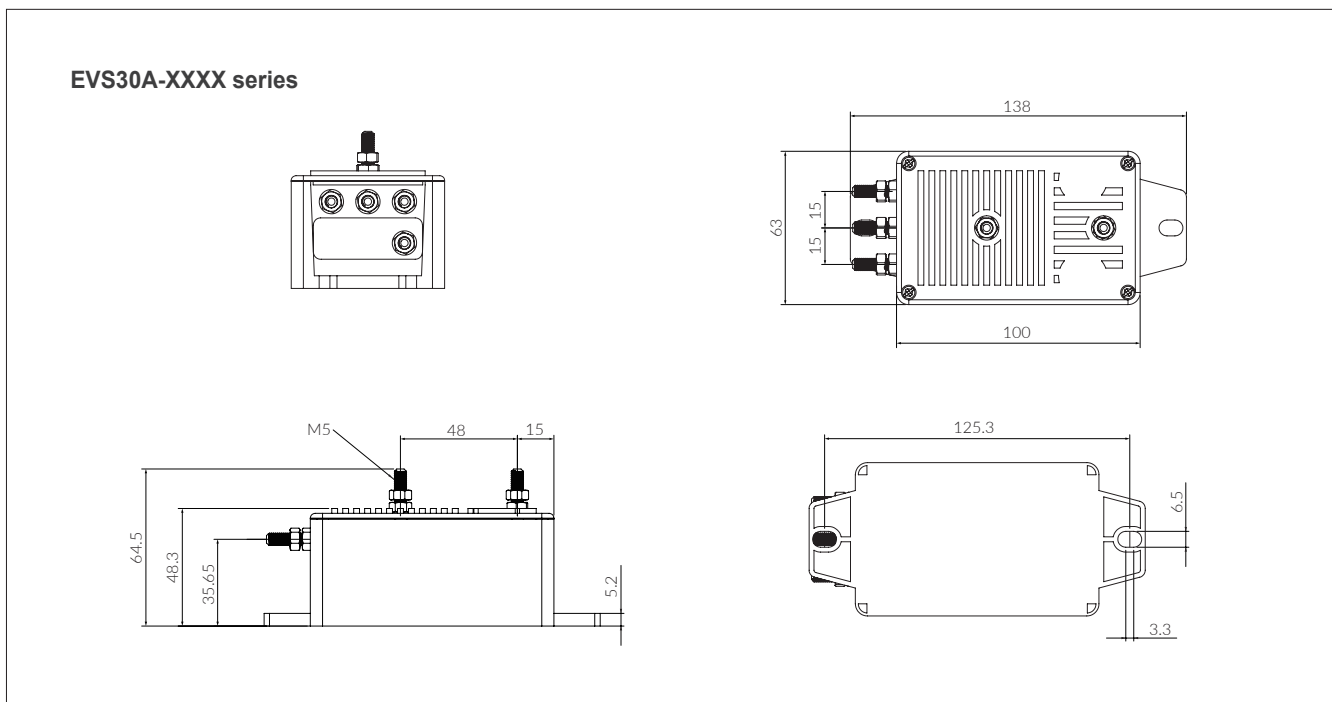
Output Wave-2



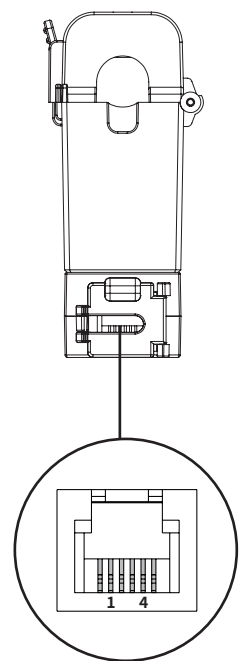
EVS30
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Dimensions EVS30A (in mm)



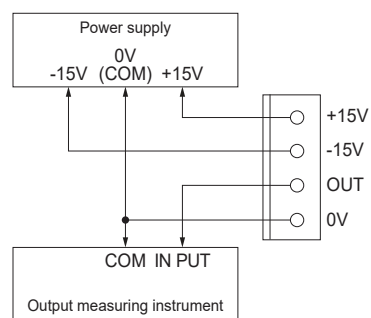
Connection Diagram



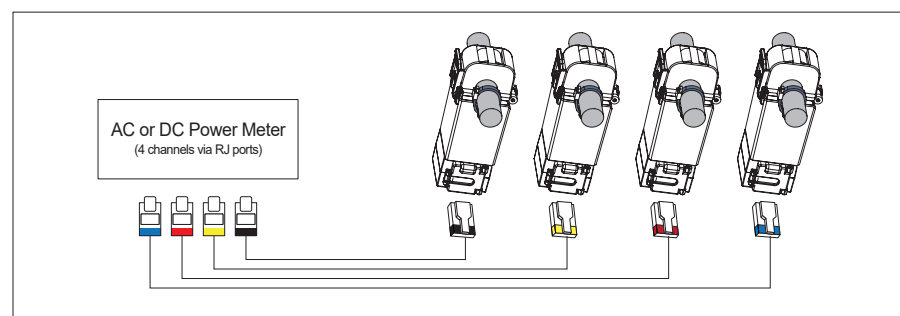
Connector

Manufacturer	Wisdom
Part Number	DS-1149-4

This product needs $\pm 15V$ (+15V and -15V DC bi-polar power supply) as operating power supply. Even if the case of detecting current with only plus direction, it still $\pm 15V$ needs. In any case, it is not possible to operate with only +15V



Terminal Pin	Function
1	+15 V
2	-15 V
3	OUTPUT
4	GND



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Safety

The J&D CTs are UL/EN 61010-1, CE, RoHS compliant and certified, are also conformed up to Pollution degree 2, 600Vac CAT III rated devices.



Please be sure that Failure to follow these instructions can result in serious injury and/or cause damage. The transducer shall be used in electric/electronic equipment in accordance with the operating instructions of all related systems and component manufacturers with respect to applicable standards and safety requirements.

Follow corresponding national regulations and safe electrical work practices.

This equipment must only be installed and serviced by qualified personnel. And the qualified personnel is one who has skills and knowledge related to the construction and operation of this electrical equipment and installations, and has received safety training to recognize and avoid the hazards involved.

In addition, the installation and maintenance shall be done with the main power supply disconnected except if there are no hazardous live parts in or in close proximity to the system and if the applicable national regulations are fully observed.



When operating the transducer, there may be dangerous active voltages (e.g. primary conductor) in certain parts of the module. Users should make sure to take all necessary steps to protect against electric shock. The transducer is a built-in device containing conductive parts that are inaccessible after installation.

Therefore, a protective enclosure or additional insulation barrier is necessary.

Safe and trouble-free operation of this converter can only be guaranteed if transport, storage and installation are carried out correctly and operation and maintenance are carried out carefully.

Remark

- V_o is positive when I_p flows in the direction of the arrow. (o : output, p : primary current)
- Temperature of the primary conductor should not exceed 75°C(167°F).
- Dynamic performances (di/dt and delay time) are the best with a single bar when the primary hole is completely filled.
- By hysteresis of core, offset drift occurs proportionally to the over-current higher than rating value.
- The output value fluctuates upon the various factors, so it is recommended to use the current range higher than 5% of the rated current.
- Do not use the product over the maximum current continuously.

Attention

Contact areas (air gap) must be kept clean (particle free) to ensure proper performance.