Installation and Operating Instructions

Paladin Transducers
Class 0.5 256-T Series
Current, Voltage, Frequency, Power and DC Input

Product Covered

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<td>AC Current Transducer Average Sensing</td>
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<tr>
<td>256-TV</td>
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<td>256-TV*</td>
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<td>256-TW*</td>
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<td>256-TY*</td>
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<td>DC / DC transducer</td>
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Introduction

Paladin Transducers give a dc output proportional to the input and up to three outputs from one transducer in the case of 256-TA and 256-TV. Zero and span adjustments are accessible without opening the transducer.

DC outputs of these transducers include an internal power supply and may be connected directly across a passive load as stated on the rating label.

DC output circuits are separated from metering inputs and auxiliary circuits by at least basic insulation. Such DC output circuit terminals are only suitable for connection to equipment which has no user accessible live parts.

For all models consideration should be given to the space required behind the units to allow for bends in the connecting cables. Additional protection to the panel may be obtained by the use of an optional gasket. The terminals at the rear of the case should be protected from liquids. Units should be mounted in a reasonably stable ambient temperature and in any event where the temperature is within the range 0-60 °C.

The unit should not be mounted where it is subjected to excessive direct sunlight; vibration should be kept to a minimum. Connection wires should be sized to comply to local regulations. Such DC output circuit terminals are only suitable for connection to equipment which has no user accessible live parts.

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If this equipment is used in a manner not specified by the manufacturer, protection provided by the equipment may be impaired.

It is essential that the primary current is isolated BEFORE connecting or disconnecting the secondary current connections.

The unit is designed in accordance with BS EN 61010-1

EMC Installation Requirements

- Whilst this unit complies with all relevant EU EMC (electromagnetic compatibility) regulations, any additional precautions necessary to provide proper operation of this and adjacent equipment will be installation dependent and so the following can only be general guidance:
  - Avoid routing wiring to this unit alongside cables and products that are, or could be, a source of interference.
  - The supply to the unit should not be subject to excessive interference. In some cases, a supply line filter may be required.
  - To protect the product against incorrect operation or permanent damage, surge transients must be controlled. It is good EMC practice to suppress transients and surges at the source. The unit has been designed to automatically recover from typical transients; however in extreme circumstances it may be necessary to temporarily disconnect the supply for a period of greater than 10 seconds to restore correct operation.
  - Screened communication leads are recommended and may be required. These and other connecting leads may require the fitting of RF suppression components, such as ferrite absorbers, line filters etc., if RF fields cause problems.
  - It is good practice to install sensitive electronic instruments that are performing critical functions in EMC enclosures that protect against electrical interference causing a disturbance in function.

Fusing and Connections

This unit must be fitted with external fuses in voltage supply lines.

Voltage input lines must be fused with a quick blow fuse 1A maximum.

DC current inputs should be fused according to the rated current of the transducer.

Choose fuses of a type and with a breaking capacity appropriate to the supply and in accordance with local regulations.

Main terminal screws should be tightened to 1.35Nm or 1 ft/lbf only. Detachable terminal connector screws should be tightened to 0.9Nm or 0.7 ft/lbf only. Where fitted, terminal covers are held in place by miniature self tapping screws into plastic. These screws should be tightened by hand only, sufficiently to secure the terminal cover and prevent it vibrating.

Symbols

<table>
<thead>
<tr>
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<tr>
<td><img src="image" alt="Caution Risk of Electric Shock" /></td>
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<tr>
<td><img src="image" alt="Do NOT Discard" /></td>
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</tr>
<tr>
<td><img src="image" alt="Refer to Manual" /></td>
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Setup and Maintenance

Setup

The units are calibrated at the factory for full accuracy. No further adjustments are required. Zero and span adjustment where provided are under the bungs on the front panel. Resetting these will degrade the accuracy of this transducer, but may be used to compensate for system errors etc. Typically adjustment of 10% of span and 2% of zero is available, but this varies by model.

Maintenance

No routine maintenance is required, beyond removing any accumulations of dust or other foreign matter and ensuring that connection screws remain tight.

Dimensions