



Technical Manual
LVDT'S
FITTED WITH E747V IN-LINE MODULES

Doc. Ref CD2555C



Affirmed by Declaration
of Conformity

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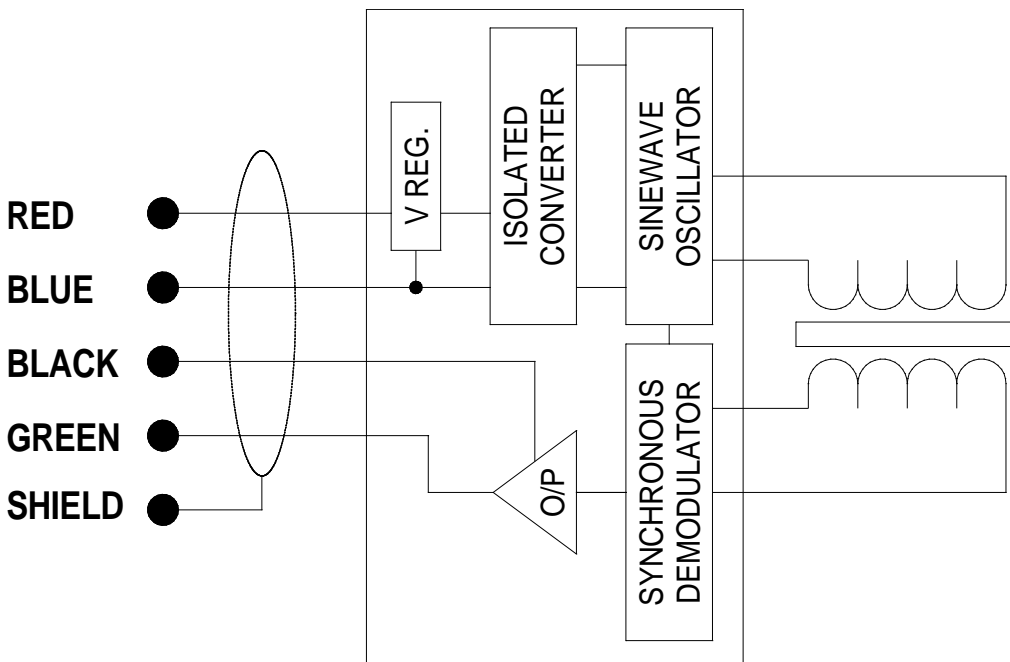
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LVDT'S FITTED WITH E747V IN-LINE MODULES

The E747V in-line module is a simple method of converting an AC LVDT into a DC in –DC out transducer. The E747V contains high quality electronics for energisation and signal conditioning. The E747V requires a +14 to +26 Volts dc supply to give an output signal of 0 to 10 Volts that is electrically isolated from the input voltage.



Connection Details

Cable Core Colour	Connection
Red	+14 to +26V dc
Blue	Supply Com (0V)
Black	Output Low
Green	Output High
Shield	Instrument Ground

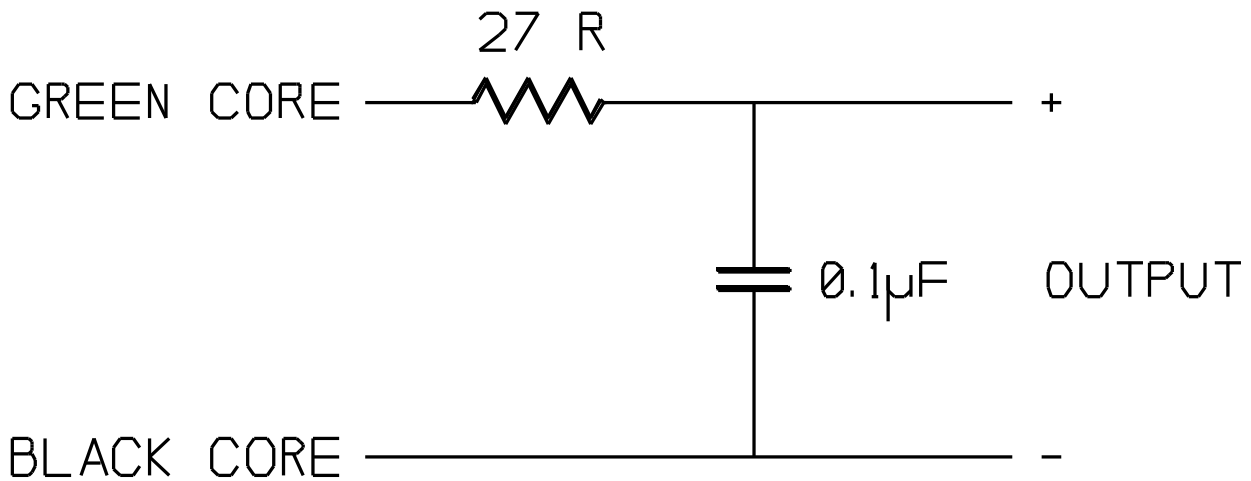
Note:

1. Incorrect connection may cause irreparable damage. Contact our Sales Department if you require assistance.
2. The transducer is factory-calibrated with an energising voltage of +24V, fitted with 2 metres of shielded cable.
3. To help prevent output noise and to comply with EMC requirements, it is preferable to connect cable shield to earth.

Output Noise (Ripple)

The output noise on E747V modules is 30mV peak to peak. This consists of 10kHz ripple with H.F. (>200kHz) superimposed on it.

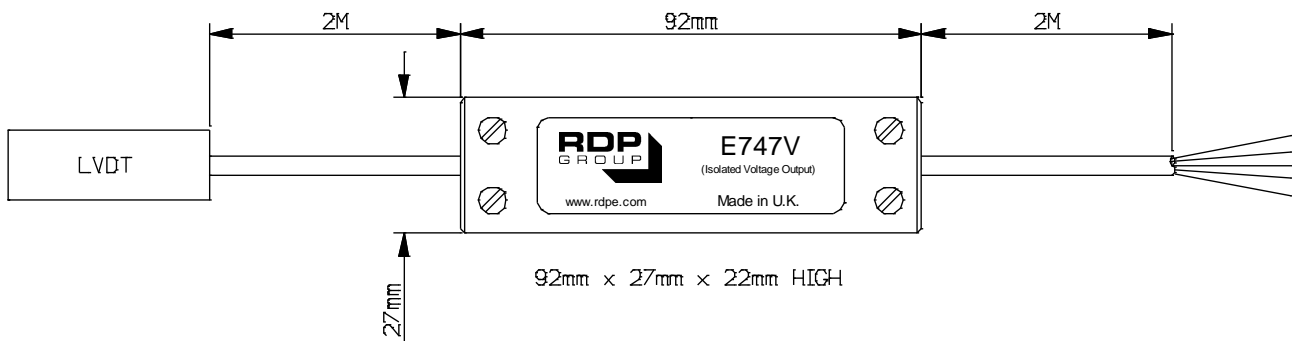
This can be reduced to a 10mV peak to peak 10kHz ripple by the addition of an RC network across the output:



Specification

Input requirements	+14V to 26V dc at 30 mA typical
Linearity	$\pm 0.5\%$ of full range max. standard or $\pm 0.25\%$ and $\pm 0.1\%$ is available at extra cost in some models
Output Voltage	0 to 10V dc nominal for working stroke (s/c proof) and isolated (0V armature in, 10V armature out).
Output Load (Minimum)	2k ohms
Output Ripple	30mV peak to peak
Output Bandwidth	200Hz (flat)
Output Impedance	2 ohms
Span Temp. Coefficient	$\pm 0.03\%$ FS/ $^{\circ}$ C (0.015%/FS/ $^{\circ}$ F)
Operating Temp. Range	-20 $^{\circ}$ C (-40 $^{\circ}$ F) to +70 $^{\circ}$ C (160 $^{\circ}$ F)

Dimensions:



WARRANTY AND SERVICE

WARRANTY.

R.D.P. Electronics products are warranted against defects in materials or workmanship. This warranty applies for one year from the date of delivery. We will repair or replace products that prove to be defective during the warranty period provided they are returned to R.D.P. Electronics.

This warranty is in lieu of all other warranties, expressed or implied, including the implied warranty of fitness for a particular purpose to the original purchaser or to any other person. R.D.P. Electronics shall not be liable for consequential damages of any kind.

If the instrument is to be returned to R.D.P. Electronics for repair under warranty, it is essential that the type and serial number be quoted, together with full details of any fault.

SERVICE.

We maintain comprehensive after-sales facilities and the instrument can, if necessary be returned to our factory for servicing.

Equipment returned to us for servicing, other than under warranty, must be accompanied by an official order as all repairs and investigations are subject to at least the minimum charge prevailing at the date of return.

The type and serial number of the instrument should always be quoted, together with full details of any fault and services required.

IMPORTANT NOTES.

1. No service work should be undertaken by the customer while the unit is under warranty except with the authorisation of RDP Electronics.
2. If the instrument is to be returned to R.D.P. Electronics for repair, (including repair under warranty) it is essential that it is suitably packed and that carriage is insured and prepaid. R.D.P. Electronics can accept no liability whatsoever for damage sustained during transit.
3. It is regretted that the above warranty only covers repairs carried out at our factory. Should the instrument have been incorporated into other equipment that requires our engineers to perform the repair on site, a charge will be made for the engineer's time to and from the site, plus any expenses incurred.

The aforementioned provisions do not extend the original warranty period of any product that has been either repaired or replaced by R.D.P. Electronics.

**THIS WARRANTY MAY BE NULL AND VOID SHOULD
THE CUSTOMER FAIL TO MEET OUR TERMS OF PAYMENT.**