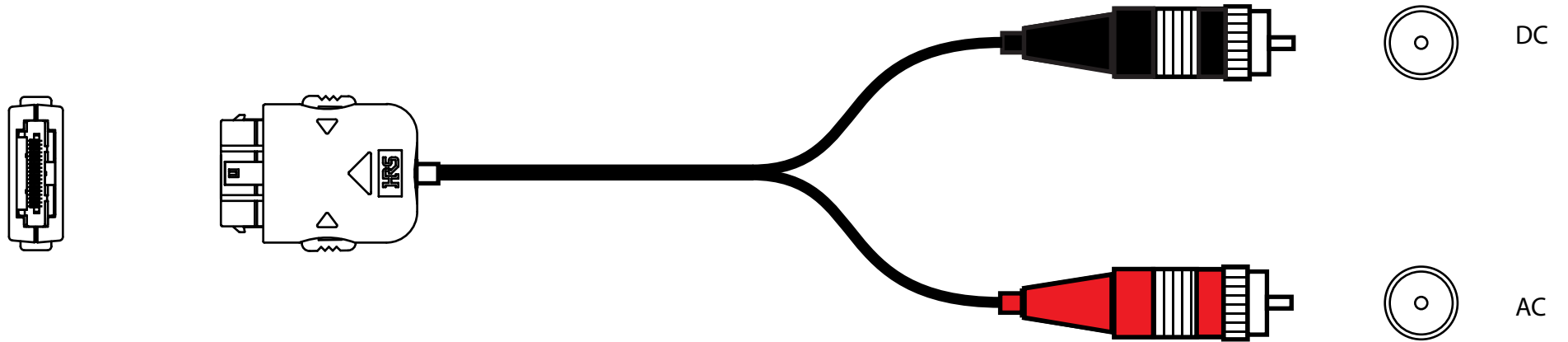


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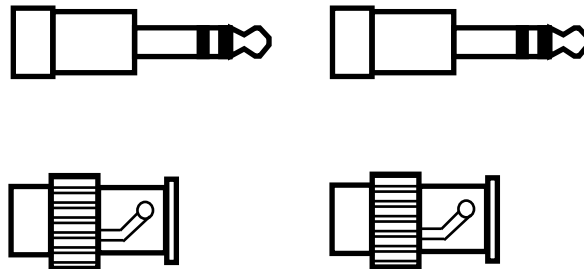
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18 Pin Multiway to Optimus

BNC and Jack Adaptors

AC/DC to Measurement equipment



## ZL:174 Optimus AC and DC Phono Cable

### Instructions:

- The ZL:174 is an AC and DC output cable.
- The Black phono connector is DC and the Red is AC.
- To use DC or AC out simply connect the multi-way connector of ZL:174 cable to your Optimus and the phono plug to your measuring device. Depending on your measurement equipment you may need to use the BNC and Jack adaptors provided.
- The Signal is on the pin of the phono and Ground is on the body .
- Remember if AC output is to be used, ensure AC out is selected in the menu of the Optimus (see Optimus instruction manual).

### Electrical Ratings:

#### DC:

Tip range 0 to 3.25 VDC, ring is Ground.  
Voltage is 25mV/dB LAF.

#### Note:

Output impedance is 10,000 Ohms.

If the DC Voltage measuring device has an input resistance of Z Ohms then output Voltage is reduced to:

$$\left[ \frac{25}{\left(1 + \frac{10000}{Z}\right)} \right] \text{ mV/dB}$$

For example if  $Z = 10000$  Ohms

The output will be:

$$\left[ \frac{25}{\left(1 + \frac{10000}{10000}\right)} \right]$$

= 12.5 mV/dB

#### AC:

The AC output has four settings: a combination of High or Low levels and a 0 or +20dB amplifier.  
Voltages and full scale levels are as follows:

##### High Levels (70-140dB):

0dB gain 1.3V pk-pk (450mV rms) at full scale 140dB

+20dB gain 1.7V pk-pk (600mV rms) at full scale 132dB

##### Low Levels (20-90dB):

0dB gain 400mV pk-pk (140mV rms) at full scale 90dB

+20dB gain 1.3V pk-pk (450mV rms) at full scale 90dB

The output is unweighted, i.e. Z-weighted.

AC output impedance is less than  $16\Omega$  in series with  $100\mu\text{F}$ .

Output is current limited to less than 50mA MAX.