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## General Purpose 4-Wire DMM Shorting Plug

### Description

The Keithley Instruments Model 8620 general purpose 4-wire DMM shorting plug provides a convenient method of shorting 2-wire and 4-wire digital multimeter (DMM) inputs together. The Model 8620 consists of four gold-plated banana plugs mounted to a clear acrylic cube, and a gold-plated printed circuit board (PCB) assembly. This enables easy checking of DMM offsets for the purposes of instrument verification or offset cancellation during basic testing. The resistance between HI and LO pins is very low ( $<1 \text{ m}\Omega$ ) due to gold-plated pin and PCB construction. However, the absolute resistances of 2- or 4-wire configurations as well as thermal voltage offsets are not specified, and metrology traceable applications are not recommended.

### Use

The Model 8620 should be inserted into the input banana jacks of the DMM by carefully aligning DMM HI and LO inputs with the labeled plug pairs on the Model 8620 (normally HI up and LO down). While all four pins are shorted to each other, the heaviest traces run between HI and LO pairs, whereas the center point trace is smaller.

|      |                                                                                                                                                                                                               |
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| Note | <p>Keep banana plugs tight for lowest shorting resistance and highest consistency of measurements.</p> <p>Only use the Model 8620 in low-voltage applications due to the exposed banana pin construction.</p> |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Figure 1  
Model 8620 dimensions

