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Ω OMEGA[®]

LP803/LP804 Series

LINEAR POTENTIOMETERS

INSTRUCTION
SHEET

M4097-1008

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LP804

Unpacking Instructions

Remove the Packing List and verify that you have received all equipment, including the following (quantities in parentheses):

LP803/LP804 Series Linear Potentiometer (1)
Operator's Manual (1)

If you have any questions about the shipment, please call the OMEGA Customer Service Department at 1-800-622-2378 or 203-359-1660. We can also be reached on the Internet at omega.com
e-mail: info@omega.com

When you receive the shipment, inspect the container and equipment for signs of damage. Note any evidence of rough handling in transit. Immediately report any damage to the shipping agent.

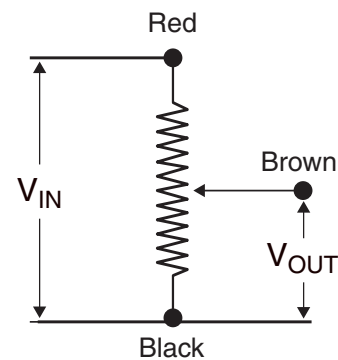
NOTE

The carrier will not honor any damage claims unless all shipping material is saved for inspection. After examining and removing contents, save packing material and carton in the event reshipment is necessary.

General Description

The OMEGA[®] LP803/LP804 Series linear potentiometers can be used to measure linear position or displacement up to 10" in a wide variety of manufacturing and process equipment. These units feature front and rear bearings, anodized extruded aluminum housing, stainless steel shaft, and precious metal wipers and contacts for long trouble free life in harsh factory environments. Based on a conductive plastic film element, the LP803/LP804 Series provides high resolution, absolute position measurement without external signal conditioners.

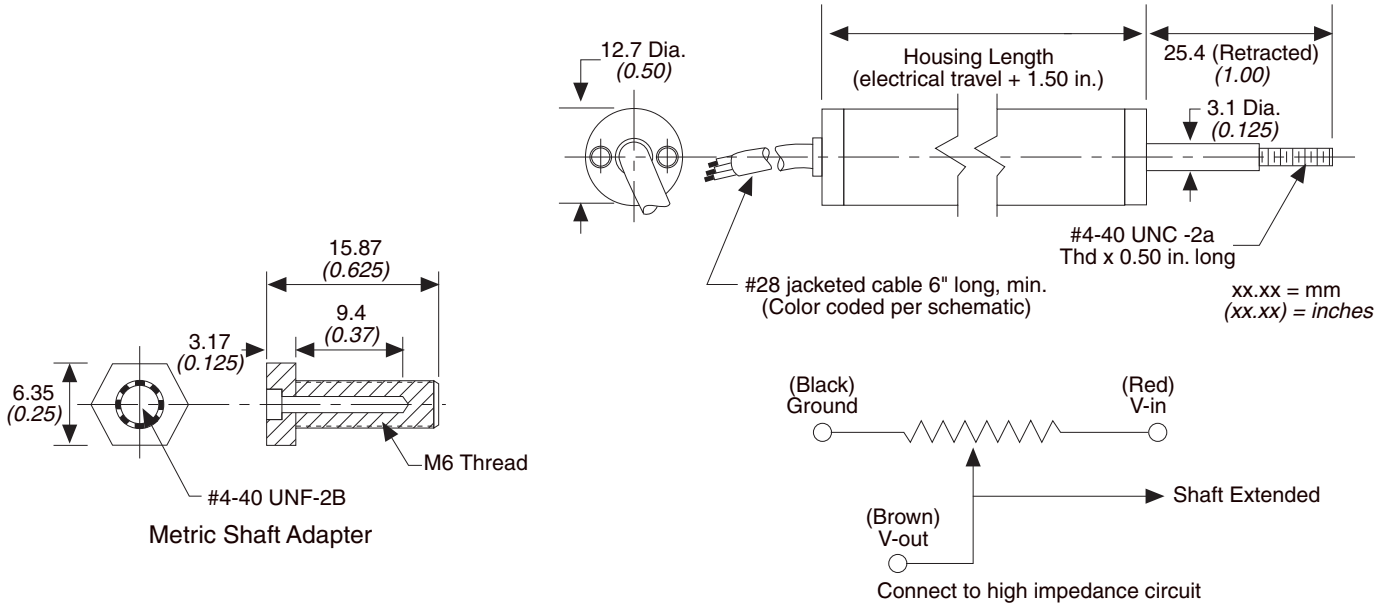
Wiring Diagram



Specifications

Total Resistance:	LP803: 1000Ω/in ±20% LP804: 1500Ω/in ±20%
Linearity:	±1% FS
Repeatability:	0.013 mm (±0.0005")
Incremental Sensitivity:	0.00005"
Power Rating:	LP803: 0.25 watts/in LP804: 0.20 watts/in
Temp. Range:	-40 to 175°F (-40 to 80°C)
Starting Force:	28 grams (1 oz.) maximum
Shaft:	0.125" diameter with 4-40 threaded end adaptor
Life:	1 billion @ 300 mm (12")/sec
Wiper Current:	<1μA

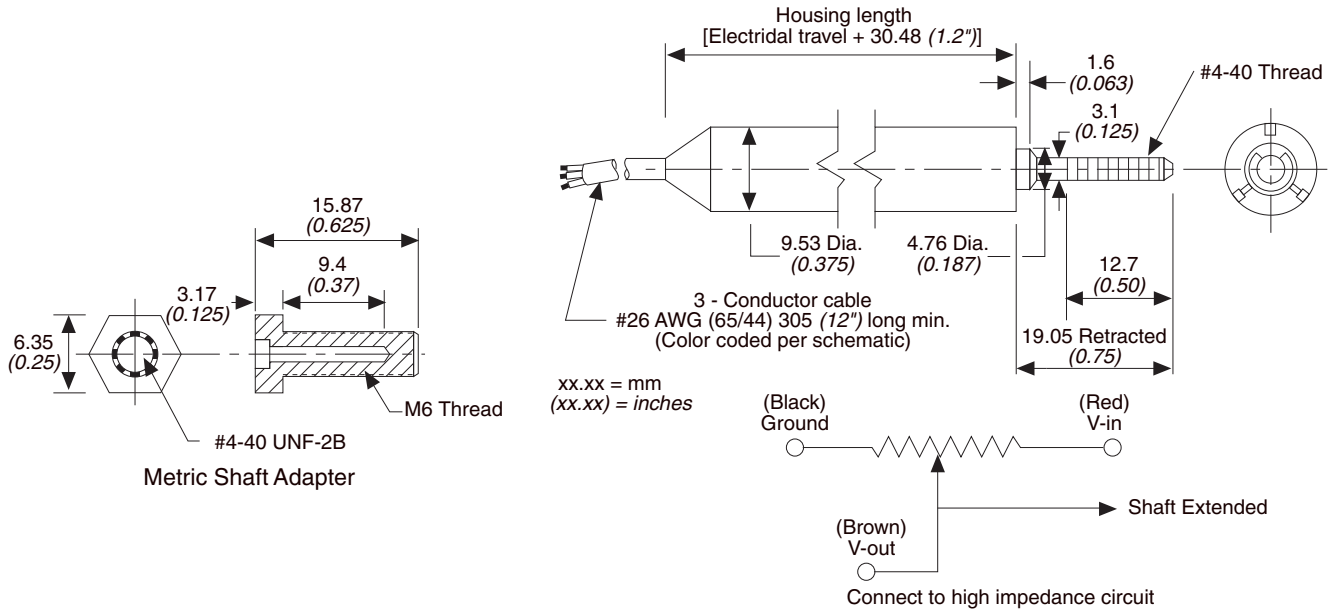
LP803 Dimensions



SCHEMATIC DIAGRAM

RANGE mm (in)	MODEL NO.	WEIGHT g (oz)
25 (1)	LP803-01	20 (0.7)
51 (2)	LP803-02	26 (0.9)
76 (3)	LP803-03	31 (1.1)
102 (4)	LP803-04	43 (1.5)
127 (5)	LP803-05	45 (1.6)
152 (6)	LP803-06	48 (1.7)
178 (7)	LP803-07	51 (1.8)
203 (8)	LP803-08	57 (2.0)
229 (9)	LP803-09	62 (2.2)
254 (10)	LP803-10	68 (2.4)

LP804 Dimensions



SCHEMATIC DIAGRAM

RANGE mm (in)	MODEL NO.	WEIGHT g (oz)
12 (0.5)	LP804-1/2	11 (0.4)
25 (1)	LP804-01	14 (0.5)
51 (2)	LP804-02	20 (0.7)
76 (3)	LP804-03	22 (0.8)
102 (4)	LP804-04	28 (1.0)
127 (5)	LP804-05	31 (1.1)
152 (6)	LP804-06	31 (1.1)



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The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice. **WARNING:** These products are not designed for use in, and should not be used for, human applications.



WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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