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#### Millar Worldwide Distribution

Millar, LLC has a worldwide exclusive agreement with ADInstruments to distribute and support Millar's research catheters and systems. Please visit ADInstruments.com for more information and for local contacts in your region.





8 Electrode Conductance Cable Models EPC-5A

For Animal Use

**Instructions for Use** 

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M.I. P/N: 004-2137 Rev. G

## Millar Limited Warranty

Millar, LLC warrants all of its cables to be free from defects in workmanship and materials at the time of shipment to the original purchaser.

Millar hereby excludes all warranties not herein stated, whether express or implied by operation of law or course of dealing or trade usage or otherwise, including but not limited to any implied warranties of fitness or merchantability.

Since handling, storage, cleaning and sterilization of the product, as well as factors relating to patient diagnosis, treatment, catheterization procedures, and other matters beyond Millar's control, directly affect the product and the results obtained from its use, Millar shall not be liable for any incidental or consequential loss, damage, or expense arising directly or indirectly from the use of this product.

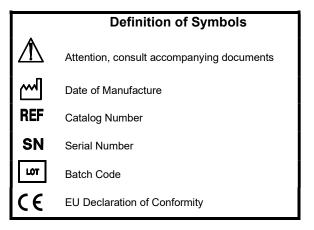
Specifications subject to change without notice.

#### **READ INSTRUCTIONS FIRST**

### **Device Description**

The EPC-5A conductance cable is designed to be an interface between a Millar 8-electrode catheter with a Redel connector and commercially available amplifiers, stimulators and data acquisition hardware. This cable is for Animal Use Only.

This product is designed for use by professionals with appropriate education and training in life science and medical research applications.



## Warnings

 Customer is responsible for EMC compliance when this cable is attached to their input device.

## Cleaning

Wipe the cable and connectors clean with a soft wet gauze or tissue. If extremely dirty, the cable may be soaked in a solution of enzymatic cleaning solution. **DO NOT SOAK OR CLEAN WITH HARSH CHEMICALS SUCH AS ACETONE!** 



DO NOT IMMERSE THE ELECTRICAL CONNECTOR.

## **Recommended Sterilization Method (Optional)**

In most cases sterilization is not required and should only be used in the event of a possibility of infection between breeds of rodents due to microbial forms such as bacterial spores on the device. If an infection is possible, the use of a high-level disinfectant is recommended since this process is less lethal and destroys most recognized pathogenic microorganisms. The use of Cidex OPA, Cidex Activated or Metricide disinfectant is recommended in lieu of ETO sterilization. If protocol mandates sterilization, the following cycle parameters are to be used.

Ethylene Oxide Gas: The ethylene oxide sterilizer should be thoroughly cleaned before each sterilization cycle. The cable should be completely dry before sterilization as water on the unit may react with ethylene oxide and reduce its effectiveness.

#### **Sterilization Cycle Parameters**

Starting Temperature 110 °F (43 °C) minimum. Preheat phase:

**Duration 30 minutes** 

 $6.0 \pm 0.5 \text{ inHgA} (20.3 \pm 1.7 \text{ kPa})$ Initial Vacuum:

Rate:  $1.0 \pm 0.5 \text{ inHgA/min} (3.4 \pm 1.7 \text{kPa/min})$ 

Nitrogen Flush: 2 cycles

Nitrogen Addition to:  $28.0 \pm 0.5 \text{ inHgA } (94.8 \pm 1.7 \text{ kPa})$ 

Rate:  $1.4 \pm 0.5$  inHgA/min.  $(4.7 \pm 1.7 \text{ kPa/min.})$ 

Evacuation:  $6.0 \pm 0.5 \text{ inHgA } (20.3 \pm 1.7 \text{ kPa})$ 

Rate:  $1.0 \pm 0.5$  inHgA/min. (3.4  $\pm$  1.7 kPa/min)

Conditioning

Humidification:  $1.5 \pm 0.5 \text{ inHgA} (5.1 \pm 1.7 \text{ kPa})$ 

Steam Conditioning: 10 minutes

Humidity Dwell: 30  $\pm$  5 minutes at7.5  $\pm$  0.5 inHgA (25.4  $\pm$  1.7 kPa)

Relative Humidity: 15-70%

Ethylene Oxide Concentration:  $500 \pm 50 \text{ mg/L}$ 

Dwell Pressure:  $16.5 \pm 1.0 \text{ inHgA} (55.8 \pm 3.4 \text{ kPa})$ 

Dwell Time: 2 hours

Temperature: 110-130 °F (43-54 °C) Relative Humidity: 30-70%(35-44% nominal)

After Vacuum

 $6.0 \pm 0.5 \text{ inHgA } (20.3 \pm 1.7 \text{ kPa})$ Vacuum:

 $1.0 \pm 0.5$  inHgA/min. (3.4  $\pm$  1.7 kPa/min) Rate:

Vacuum Hold: 10 minutes.

Gas Wash A: 4 cycles (minimum)

 $30.0 \pm .0.5$  inHgA/min. (101.6  $\pm$  1.7 kPa) Release: Rate:  $1.4 \pm 0.5$  inHgA/min.  $(4.7 \pm 1.7 \text{ kPa})$  $6.0 \pm 0.5 \text{ inHgA} (20.3 \pm 1.7 \text{ kPa})$ Vacuum:  $1.0 \pm 0.5 \text{ inHgA/min.} (3.4 \pm 1.7 \text{ kPa/min})$ Rate:

Release (Filtered Air)  $28.0 \pm 0.5 \text{ inHgA} (94.8 \pm 1.7 \text{ kPa})$  $2.0 \pm 0.5$  inHgA/min.  $(6.6 \pm 1.7 \text{ kPa})$ 

Rate:

Aeration Duration: At least 8 hours

 $110 \pm 10 \, ^{\circ}\text{F} \, (43 \pm 6 \, ^{\circ}\text{C})$ Temperature:

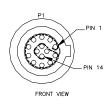
Sterilization by autoclaving, ionizing (gamma) radiation, plasma, hydrogen peroxide, and exposure to formaldehyde vapor solutions are known to be incompatible with the cable and must not be used. Use of a Glutaraldehyde Solution (e.g., Cidex®) is not recommended because the electrical connectors cannot be immersed and thus would not be sterilized by this method.

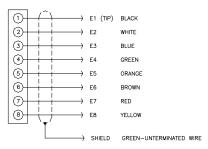
# **Routine Inspection**

Conductive liquid entering the cable connectors can cause erratic operation and possible corrosion of wires within the connectors. The connector pins should be routinely inspected for corrosion.

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#### **Schematic**





EPC-5A

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