TEMPORARY CARDIAC PACING LEAD

After most open heart surgical procedures, it is typical for the surgeon to implant a temporary pacing lead in the epicardium or myocardial tissue of the atria or ventricles of the cardiac patient's heart. The primary purpose of the temporary pacing lead is to provide a means of monitoring and pacing the atria and ventricles.

QN temporary pacing leads consist of a conductive wire lead with one end stripped of insulation for some length, and crimped to a curved taper point suture needle for facilitating implantation in the myocardium. The other end of the insulated lead is attached to a straight cutting edge Keith needle which is pushed through the thoracic cavity wall from the interior to the exterior. The Keith needle is equipped with a special break-off groove. The cutting part of the needle is broken off from the groove, and the stub forms an electrode plug which is connected to conventional pacing and monitoring equipment.

The QN temporary pacing leads comprise of the following parts, each of the highest quality :

- <u>Conductive lead</u>: 49 or 19 strands of 316-L implant grade stainless steel cable, insulated with a bio-compatible virgin PTFE/PE polymer. This provides a combination of excellent flexibility, strength, and conductivity and corrosion resistance. The highly flexible construction assists in atraumatic implantation and removal of the lead wire from the patient. The single layer PTFE/PE insulation provides the smoothest coating used among cardiac pacing wires to minimize tissue trauma on insertion and removal.
- <u>Curved suture needle crimped with the electrode wire :</u> This is a 3/8 or ½ circle taper point / taper cutting needle crimped to the conductive lead exposed for 60 mm (or whatever length customer may specify) from the end of the curved needle to permit implantation of bare wire in the myocardium. This needle is siliconized to facilitate the insertion into the myocardial tissue.
- <u>Break-off Keith Needle</u> The extra sharp Keith needle is also siliconized to minimize the force required for insertion through the chest wall. The break off groove provided in the shaft permits a clean and easy break, thereby eliminating the need to cut the needle with a wire-cutter.

Standard configurations for pacing lead available are as follows:

<u>Surgical Needle</u> -- Needle options commonly used, are as follows:

- ¹/₂ circle, taper point needle in lengths 17, 26 or 37 mm.
- 3/8 circle, taper point needle, length 16 mm
- ½ circle, taper cutting point needle, length 17,26 or 37 mm

<u>Break-off Keith Needle</u> -- Straight, cutting edge needle, length 60, 63 or 89 mm, with "Break-off" groove.

<u>Conductive Lead</u> - 60 cm length & insulation color Orange, Blue and White available as per customer requirement

• Resistance – 10 ohms max. over a 10" length.
