



SECTION 1

GENERAL INFORMATION

1. INTRODUCTION:

A: General: The principal use of the bulk current injection probe is for inducing RF current into the signal and power cables of equipment under test to determine conducted RF susceptibility. The injection probe can also be used as a sensor. The conductor or cable under test is passed through the probe aperture (window) and becomes a one-turn secondary winding, (when the probe is used for signal injection) or a one-turn primary (when the probe is used for current measurement).

B: SOLAR Type 9142-1N Bulk Current Injection Probe: Features a "clamp on " design which facilitates installation and speeds the measurement of EMI testing.

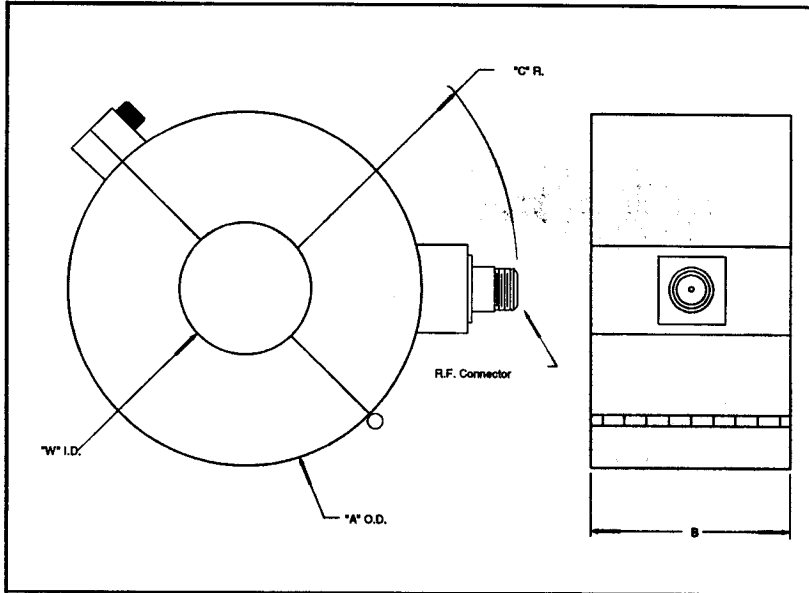
This probe provides minimum insertion loss over the frequency range of 2 MHz to 400 MHz See Insertion loss graph (Figure 1) or Correction factor graph (Figure 2).

SOLAR TYPE 9142-1N BULK CURRENT INJECTION PROBE.

C: Specifications:

Frequency range: 2 MHz to 400 MHz
Maximum input power: 200 watts (see note)
Maximum input current: 50 Amperes
Maximum time for continuous rating at full power: 30 minutes
Recommended maximum temperature rise: 35 degrees C
Maximum core temperature: 80 degrees C
Turns ratio: 1:1
Input receptacle: Type "N" Female
Weight: 1.9 kg (4.2 lbs.)
Fastening: Thumb Screw

Dimensions:



A: 4.25" (108.0mm)
B: 2.50" (64.0mm)
C: 1.125" (28.58mm)
W: 1.50" (38.0mm)

NOTE

The power limit specified is 200 watts for 30 minutes. Powers in excess of 200 watts may be used with care, using a shorter than 30 minute period to limit temperature rise. Also, the RF current through the coil winding should be monitored to prevent thermal failure.

SOLAR ELECTRONICS CO.