

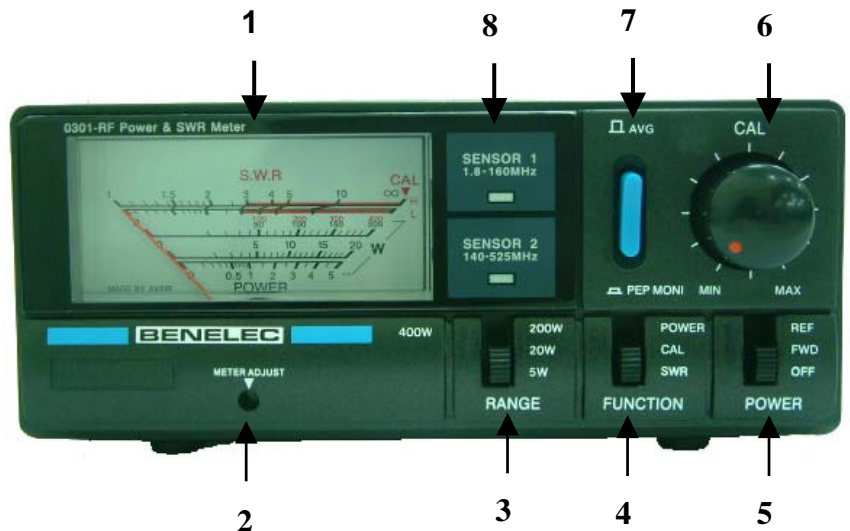
0301 – RF Power & SWR Meter

Description

This instrument is an insertion type RF wattmeter and can be left fitted in a transmission line for continuous monitoring of transmitter and antenna performance. The meter can operate without a DC power source, however there is a DC jack provided on the rear for meter illumination and for a LED to indicate the selected coaxial line sensor.

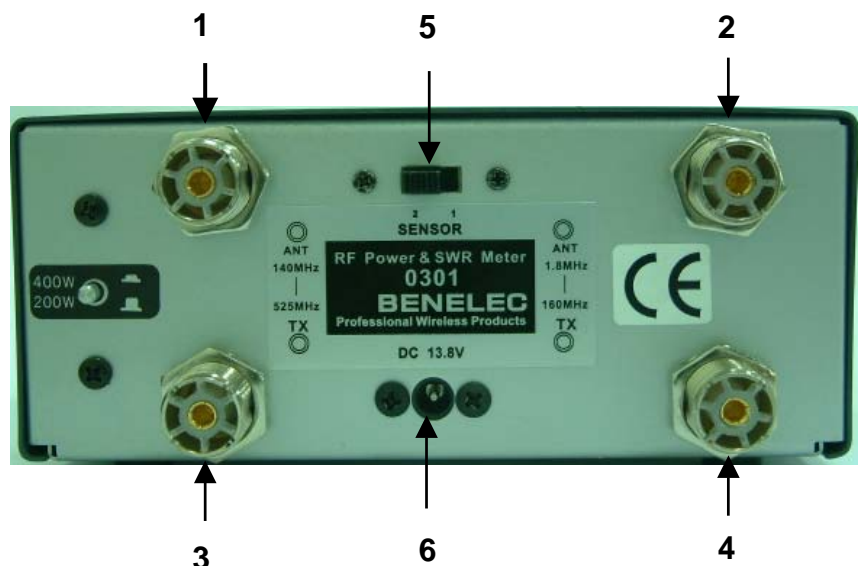
Front Panel Controls

- 1 – Meter
- 2 – Meter zero adjust
- 3 – Power range select
- 4 – Function switch
- 5 – FWD/REF/POWER OFF
- 6 – SWR Calibration adjustment
- 7 – Average / PEP select
- 8 – Sensor select indicator



Rear Panel Connections

- 1,2 – SO239 to Antenna 50 OHM
- 3,4 – SO239 to Transmitter 50 OHM
- 5 – Sensor select
- 6 – DC jack 13.8V



Installation

To install the meter, connect the coaxial cable from the antenna to the SO239 connector marked "ANT" and the cable from the transmitter (or amplifier) to the SO239 connector marked "TX". Ensure you connect to the sensors of the correct frequency range.

Power Measurements

1. Select the RANGE switch (3) to the expected transmitter maximum power level.
2. Select POWER on the FUNCTION switch (4).
3. Set the FWD/REF switch to FWD to measure the forward power or to REF to measure reflected power.

VSWR Measurements

1. Select the RANGE switch (3) to the expected transmitter maximum power level.
2. Set the FUNCTION switch (4) to CAL.
3. Key the transmitter and adjust the CAL knob so the meter needle is in the CAL position on the end of the meter scale.
4. Set the FUNCTION switch (4) to the SWR position and read the VSWR on the SWR scale.

Specifications

Frequency Range: 1.8~160 MHz, 140~525 MHz

TX Power Ranges: 0.5~400W (5W/20W/200W)

Min Input Power: 0.5W

Accuracy: 5W range $\pm 5\%$, 20W range: $\pm 7.5\%$, 200W range: $\pm 10\%$, 400W range: $\pm 12.5\%$

Impedance: 50 ohm

Insertion Loss: 0.2 dB (1.8~160 MHz, 140~525 MHz)

Dimensions : 15cm X 6.5cm X 10cm

Weight: 720 g