



MICROLAB/FXR

HX, HY, HZ series

Signal Samplers

High Power, Reactive Probe
50 – 12,000 MHz

- ◆ 500 Watt Average Power Rating
- ◆ Minimal RF Insertion Loss
- ◆ High Reliability
- ◆ N, BNC, TNC, or SMA Standard
- ◆ Custom miniaturized versions to special order



Microlab/FXR Models HX, HY and HZ series reactive samplers consist of a probe loosely coupled to a short length of 50Ω coaxial transmission line. A small portion of the RF energy in the main line is coupled by the probe to the auxiliary output, the balance being transmitted to the output with negligible reflection or loss. The coupling between probe and main line is continuously adjustable and may be locked at any convenient position. The coupling value is dependent on frequency falling at the rate of 6 dB per octave as frequency increases.

Units consist of a low-loss main line with both terminals available. In the **HX series**, the coupling arm incorporates a loop with a detector mount which accommodates diodes such as the 1N21 or 1N23 (not supplied with unit). A built-in DC return and RF by-pass capacitance are provided in the diode holder.

The **HY series** uses a loop to electromagnetically couple to the magnetic field of the main line. The loop coupling provides a DC return in the branch line. The **HZ series** couples with an electrostatic probe, which is useful when a DC return is not required in the branch line.

Options for fixed coupling levels, custom housings, different polarity or alternate connectors are available on request. See [HZ-15N](#) for Adjustable Signal Tap designed for wireless applications. (8/00)

General Specifications

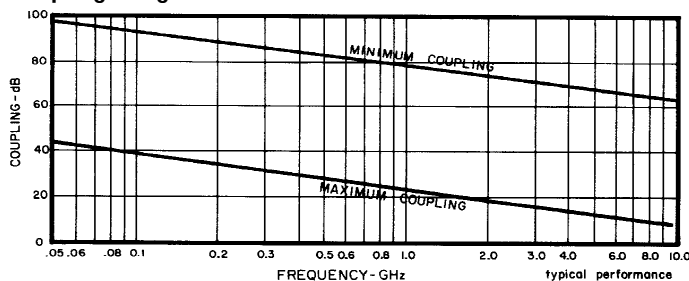
Frequency Range: 50 to 12,000 MHz.
 Insertion Loss: 0.2 dB max.
 Impedance: 50Ω nominal.
 Main Line VSWR: 1.2:1 max. in the coupling range, shown in graph.
 Power Rating: 500W avg., 5kW peak.
 Standard Connectors:
 Main Line: male to female
 Sample Port: BNC (female) standard
 Temperature Range: -55°C to +150°C
 Finish: Silverplate per QQ-S-365

Basic Unit Specifications with N-connectors (N suffix)

Coupling Method	DC Return	Coupled Output	Model Number
electromagnetic	Yes	Video	HX-10N
electromagnetic	Yes	RF	HY-10N
electrostatic	No	RF	HZ-10N

For resistive coupling see [HM series](#)

Coupling Range



Connector Variations

Connector and p/n suffix	Length in. (mm)	Height in. (mm)	Weight Oz. (g)
N N	2.7 (69)	2.2 (56)	3.3 (92)
BNC B	2.5 (64)	2.1 (53)	1.7 (48)
TNC T	2.5 (64)	2.1 (53)	1.8 (50)
SMA F	2.5 (64)	2.1 (53)	1.8 (50)