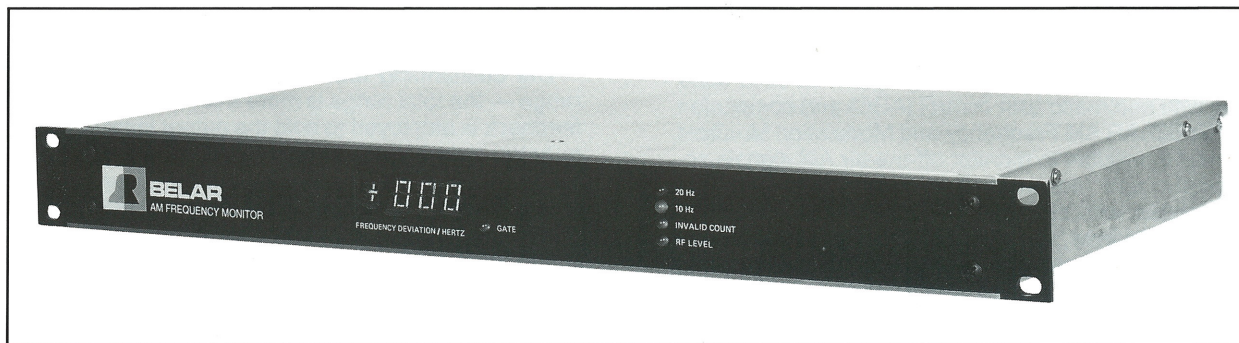


BELAR AUTOMATIC AM FREQUENCY MONITOR

AMM-4

DESCRIPTION

The Belar AMM-4 is a digital AM frequency monitor designed especially for automatic broadcast transmitter monitoring. The counter will accurately monitor any frequency from 10 kHz to 50 MHz. A large 3½ digit LED readout provides a display range of ± 1999 Hz deviation from the assigned channel. A front panel LED indicator warns of low RF level or loss of carrier; an optional relay contact can be provided. The monitor also provides two off-frequency alarms which are inhibited so that three successive errors are required to signal an alarm. This prevents false off-frequency conditions. For example, if the carrier frequency exceeds ± 10 Hz, a front panel LED indicator is immediately activated into a flashing state. This warns of an impending off-frequency condition. After three successive counts in this condition, the monitor will activate an optional relay contact for remote alarms. It also changes the front panel indicator to a continuous ON state. If the frequency exceeds ± 20 Hz for three successive counts, then the second front panel indicator is activated as well as an optional relay contact.

Another feature of the AMM-4 is the invalid count alarm. If this condition arises due to low RF level or a malfunction in the counter, the frequency alarms are held in their OFF condition; however, a front panel LED indicator and optional relay contact are provided to warn of an invalid count.

If the counter is driven by a modulated source, a count inhibit input is provided. This input is controlled by the 100% negative output of a modulation monitor; thus if the modulation level exceeds 99% negative, then the display and alarms would be held at the state they were in prior to the overmodulation fault.

Relay contact outputs (described above) are available as options. A switchable 1 MHz input/output connector is provided for frequency comparison.

FEATURES

- Inhibited off-frequency alarms
- 10 Hz off-frequency alarm

- 20 Hz off-frequency alarm
- RF level alarm
- Invalid count alarm
- Count inhibit input
- External timebase input
- 1 MHz output
- 3½ digit LED display
- Low profile design
- Designed for ATS operation

SPECIFICATIONS

Frequency Range	10 kHz to 50 MHz
Display	Large 3½ digit LED
Display Range	± 1999 Hz
Sensitivity	100 mV, Unmodulated 2 V rms, 99% modulation
Gate Time	2 seconds
Resolution	0.5 Hz
Time base (Internal)	6 MHz
Stability	$\pm 1 \times 10^{-6}$ per year
Time Base (External)	1 MHz, TTL compatible level
10 Hz alarm	Front panel LED warns of potential frequency fault, inhibited for three successive errors
20 Hz alarm	Front panel LED, inhibited for three successive errors
RF alarm	Front panel LED, warns of low RF level or carrier fail condition
Invalid Count Alarm	Prevents false counts due to low RF level or problem in counter
Count Inhibit Input	External contact required capable of sinking 2mA
Dimensions	1¾"H x 10½"D x 19" W (EIA Rack Mount)
Power Requirements	115/230 VAC, 50/60 Hz

OPTIONS

- Relay card for frequency alarms, RF level alarm

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Where Accuracy Counts. . . Count on Belar

Manufactured in the U.S.A.