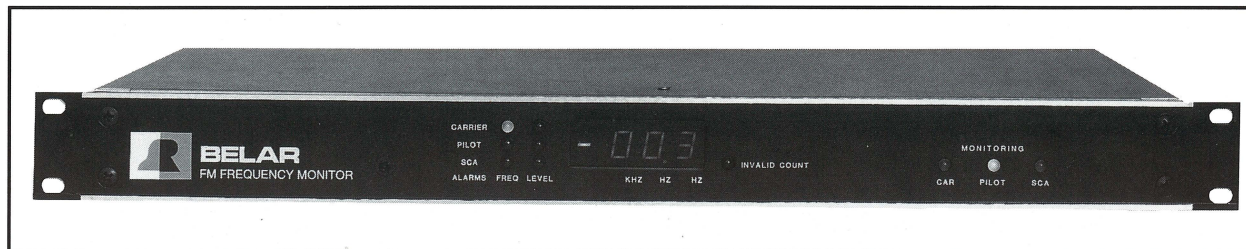


# BELAR AUTOMATIC FM FREQUENCY MONITOR

**FMM-4A**



## DESCRIPTION

The Belar FMM-4A is a highly accurate digital FM frequency monitor designed especially for automatic broadcast transmitter monitoring. The counter will accurately monitor FM Carrier, Pilot, and SCA Frequencies. A large 3½ digit LED display provides a range of  $\pm 19.99$  kHz for Carrier,  $\pm 1999$  Hz for SCA, and  $\pm 10$  Hz for Pilot. Front panel LED indicators are provided to warn of low level input or loss of any monitoring frequencies. To prevent false alarms, the FMM-4A inhibits the off-frequency alarms until three successive errors are detected. Two levels of alarm are provided for Carrier deviations. An alarm is also provided to indicate an invalid count, which could result from too low an input level or a malfunction with the counter. An optional alarm relay board is available.

## FEATURES

- **CARRIER**
  - RF Input or LO and IF Inputs when RFA-4 or RFA-1A is used
  - $\pm 1$  kHz Off-Frequency Alarm
  - $\pm 2$  kHz Off-Frequency Alarm
  - Low-Level Alarm
  - FM Averaging Frequency Switch
- **PILOT**
  - $\pm 2$  Hz Off-Frequency Alarm
  - Low-Level Alarm
- **SCA**
  - $\pm 500$  Hz Off-Frequency Alarm
  - Low-Level Alarm
- Invalid Count Alarm
- Large 3½ digit LED display

- Low profile design
- Designed for ATS Operation

## SPECIFICATIONS

Frequency Range ..... see below  
Display ..... Large 3½ digit LED  
Gate Time ..... 2 seconds  
Time Base ..... 6 MHz  
Time Base Output ... 6 MHz TTL compatible level  
Invalid Count Alarm. .... prevents false counts due to low level or problem in counter  
Level Alarms ..... 3 LED Indicators

### CARRIER

Frequency Range ..... 80 MHz to 120 MHz  
Sensitivity ..... RF(LO/IF) .. (200/100)mV  
Resolution .....  $\pm 10$  Hz  
Range .....  $\pm 19.99$  kHz  
Off-Frequency Alarms .....  $\pm 1$  kHz &  $\pm 2$  kHz

### PILOT

Frequency Range ..... 19 kHz  $\pm 10$  Hz  
Sensitivity ..... 500 mV  
Resolution .....  $\pm 0.1$  Hz  
Range .....  $\pm 10$  Hz  
Off-Frequency Alarms. ....  $\pm 2$  Hz

### SCA

Frequency Range ..... 67 kHz direct or follows range of Belar SCM-2 SCA monitor  
Sensitivity ..... 500 mV  
Resolution .....  $\pm 1$  Hz  
Range .....  $\pm 1999$  Hz  
Frequency Alarms. ....  $\pm 500$  Hz

Dimensions ..... 1¾"H x 12"D x 19"W  
(EIA Rack Mount)

Power Requirements .... 115/230 VAC, 50/60 Hz  
Shipping Weight. .... 10 lbs.



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*Where Accuracy Counts. . . Count on Belar*

Manufactured in the U.S.A.