



SINCE 1948
RACO
REMOTE ALARMS AND CONTROLS
CHATTERBOX

Analog Signal Input Option for Chatterbox CB4 Automatic Dialing Remote Monitoring System

The Analog Signal Input Option allows the CHATTERBOX Model CB4 to monitor and verbally report one analog input value, in addition to the existing contact input channels (4, 8, 16, etc.).

This option is implemented as a plug-in circuit board module on a standard modular CB4. Consult factory before ordering field upgrade for original CB4.

The analog message is spoken by the CB4 as follows:
"The present (water level) reading is
five-four-point-nine [feet]."

The spoken nomenclature (shown in parentheses above) and the spoken units of measure [shown in brackets above] are not field-programmable and must be specified at the time of order. The analog message is factory programmed onto a plug-in chip from RACO's "1600" word list at no extra cost.

High and low setpoint values are user-programmable at the keyboard. If either setpoint value is exceeded, the CB4 will go into alarm and place alarm calls, reporting the then-current value. Setpoints may also be altered over the phone by touch tone using the Remote Programming feature,

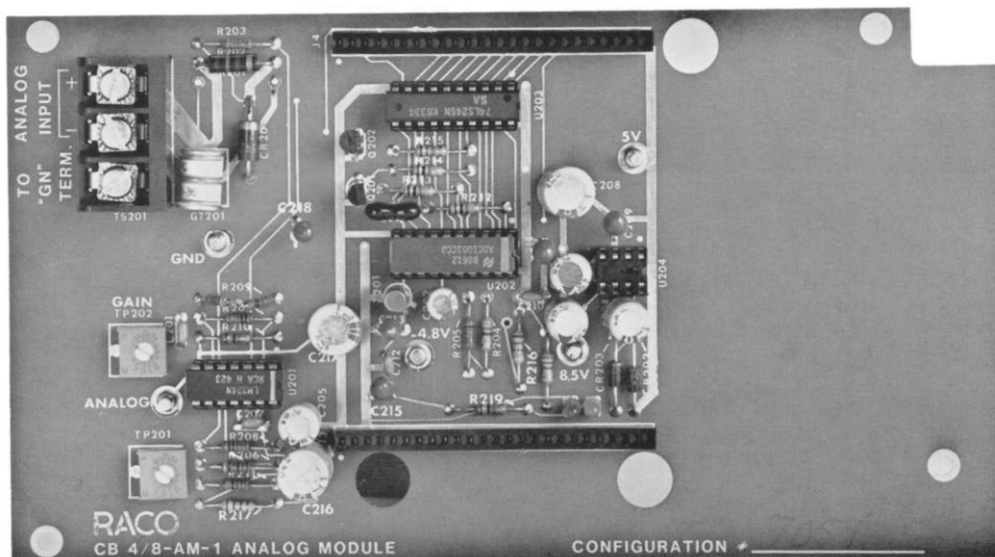
or by computer if equipped with the Computer Interface Option.

The type of analog input signal, spoken nomenclature, and the spoken units of measure, as well as the specific relationship between the analog signal and the desired spoken value, must be specified at time of order. This is expressed in the following example:

4-20 ma DC current input
4 ma to give spoken reading of 12.5 GPM
20 ma to give spoken reading of 210.0 GPM
Spoken message to be "the present flow reading is xxx.x GPM."

These spoken messages and scaling factors may be changed by ordering a replacement plug-in EPROM chip from RACO. Changing the signal input configuration requires a hardware alteration on the card.

The common return (negative signal input) is connected to common ground potential inside the CB4. In most applications, this provides satisfactory operation because the input signal is either floating (as with most current loops) or else already referenced to ground (as with most voltage inputs). However, the system engineer should verify whether this will be a problem in the specific application.



Analog Signal Input Specifications:

Available Input Configurations:

- RACO TS 705A Temperature Sensor, - 20° to + 120 ° F or - 30° to + 55°C
- Analog Devices AD590 Temperature Sensor, -67° to + 302°F or -55° to + 150°C
- 4 to 20 ma DC
- 0 to 1 or 0 to 5 volts DC
- 0.2 to 1 or 1 to 5 volts DC
(consult RACO for other input configurations)

All input configurations are single ended (one side tied to electrical ground).

Input Impedance:

- Over 1 meg in Parallel with 22 uf for voltage inputs.
- 50 ohms for 4-20 ma input

A/D Resolution:

- 10 bits (1 part in 1024)

Accuracy:

- + / - 0.3% of full scale

Surge Protection:

- Gas tube followed by resistor and solid state Tranzorb.

Effect on 24 hour battery option:

- Reduces 24 hour rating to approximately 16 hours
- No effect on standard 6 hour rating.

SPECIFY AT TIME OF ORDER:

- Input Configuration (e.g. 4-20 ma, etc.)
- Spoken Nomenclature (see above)
- Spoken Units of measure (see above)
- Spoken Reading at lowest input signal level (e.g. 450.0 at 4 ma input)
- Spoken Reading at highest input signal level (e.g. 980.5 at 20 ma input)

Specifications subject to change without notice
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