

FORM FOUR

PRODUCT DESCRIPTION



FEATURES

- Provides Power, Supervision & Control for 100MA Municipal Telegraph Boxes (optional 60MA operation, P/N 400320-0002)
- Energy Efficient, Switching Power Supply
- Type A, B, or A/B Programmable
- LED Meter Displays Current, Voltage & Leakage Readings
- Common Card Provides Supervision and Ground Return Control
- Box Card Supplies Supervisory and Control Logic
- Alarm Card Powers and Supervises Box Circuits up to 10 Cards per Rack, Expanded by adding Expansion Card Cages
- NFPA 72 Compliant

The Digitize Form Four is a power regulator that provides power, supervision and control for 100MA telegraph boxes. The Form Four prevents excessive generation of heat which could damage circuitry and reduce the life of the equipment. The Card Cage provides the housing for one common card, and up to 10 Box or Alarm cards in any combination

The Form Four Box Card supplies supervisory and control logic for repeating alarms to bell or recording circuits. It also automatically provides ground return capability for the reception of alarms from "Three Fold" type fire alarm boxes in the event of an open circuit.

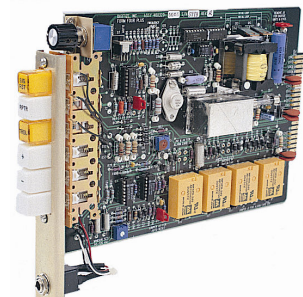
The Alarm Card powers and supervises box circuits. A Common Card monitors the operation of the system. All abnormal conditions are indicated via visual and audible alarms. Power breaks, a missing card, and low or high line current are examples of situations that will activate the audible alarm. This card also has the ability to supervise the AC input of an external battery charger eliminator as well as the DC output from the battery.

The switching power supply enables the Form Four to convert the station power source to the required operating voltage efficiently. The Form Four operates from a 24-Volt DC power source.

A digital LED meter, mounted to the front panel, provides accurate voltage and current measurements on the line circuits. Voltage from line-to-ground and line-to-line can also be measured. The meter is common to all line circuits through push buttons and has a battery backup.

Each Box or Alarm card constantly monitors for proper line current. Under normal conditions, all box alarms are received from closed series circuits. Short circuit protection by switching power supply is used in all box and alarm circuits as well as automatic or manual line current regulation (switch selectable). If a break occurs in a box circuit, automatic conditioning to ground return mode is provided (on Box card only).

Modular Box and Alarm cards are programmable (via programming plug) for Type A, Type B or Type A/B operation. For Type B cards, fire alarm codes from a box circuit are automatically and simultaneously repeated into the other box and alarm circuits.



Box/Alarm Card



SPECIFICATIONS

CARD CAGE DIMENSIONS LINE CIRCUIT

- Height - .75 in.
- Width-19.0 in.
- Depth-10.5 in.

FORM FOUR AC PANEL DIMENSIONS

- Height -3.5 in.
- Width-9.0 in
- Depth-10.5 in.

OPERATING ENVIRONMENTAL RANGE

- 30°-120° degrees F (0°-49° degrees C)
- 90% relative humidity, non-condensing maximum

POWER REQUIRED

- DC Input - 20.5 VDC to 28.5 VDC at 7.5 amps max.
- DC Fuses:
 - Circuit supply buss, 10 amps
 - Recorder Power Buss, 10 amps
 - Control Power Buss, 2 amps
 - DC Converter Primary, 1 amp

LINE POWER SOURCE

- Switching power supply: 1 per box card or alarm card
- Output current: 100 milliamps DC
- Output voltage: 130 VDC max. open circuit; nominal 0 to 110 VDC

LINE CIRCUIT

- Minimum Operating Line Circuit- 50 mA
- Resistance- 1000 Ohms maximum
- External line equipment connections through ¼ in. front panel telephone jack

CIRCUIT ALARMS

- Line trouble, power problems, ground return mode.
- Trouble Alarm Adjustable Delay – 15-180 seconds.

INPUT ALARMS

- One per card, activated by nominal 24 VDC at 40 milliamps maximum
- Automatic grounded reception of alarms from open circuits, manual reset to normal
- Convert to ground return delay, adjustable 2-45 seconds

OUTPUT FUNCTIONS

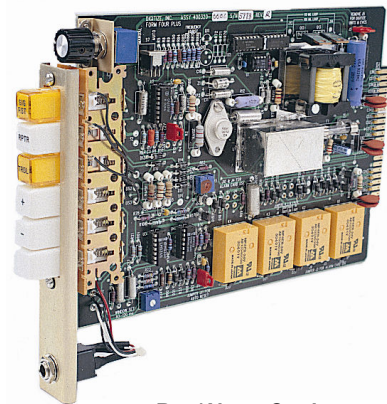
- Can be used as a satellite station for a master
- Line Recorder Output per Card -24 VDC, 1 amp
- Master Recorder Output per Card-24 VDC, 1 amp

EXTERNAL CONNECTIONS

May be connected to battery charger/eliminator with or without an external battery.

Form Four Ordering Guide:

- 450205-0001- FCR4, 10 CKT Card Cage with meter
- 450205-1002- FCR4-EXP, 10 CKT Expansion
- 450320-0000- FBX4, Form Four Box Card
- 400320-0003- FAL-4 Form 4 Alarm Card
- 400320-0003- FCM4, Common Card
- 400077-0001- FEX4, Extender Card
- 900481-xxxx- Engraved Keycaps (xxx indicates type)
- 450320-xxxx- FBX4, Form Four Box Card for 60Ma operation
Allows operation with 2,500 Ohm line resistance



Box/Alarm Card