

DP-20GMT-48N

Negative 48 Volt Rack Mount GMT Fuse Panel

Owners Guide

(These instructions are intended for use by a technician familiar with electronic products)

- Single Bus 100 Amps Max
- Fused in the Negative Lead for positive ground installations
- Up to 20 fuses
- Red/Green LED light that indicate power and alarm activity
- Form C Relay contacts are isolated for remote fuse fail indication
- 15 Amps max per position on output screws
- For use with -48 volt system
- Requires GMT visual spring indicating fuses.



*GMT fuses not included

DESCRIPTION

The DP-20GMT-48N Fuse panel is a Rack mount (1U) 100 Amp -48 VDC power distribution panel that provides up to 20 load circuits protected by individual GMT series fuses (fuses not included) in the negative lead for positive ground installations. Each circuit can be fused up to 15 Amps, with a total 20-circuit load of 100 Amps maximum. Heavy duty DC input connectors provide strong ¼ inch studs to accept up to 100 amps at -48VDC from a single power supply. This product is designed for -48 VDC positive ground systems, however, all inputs and outputs are isolated from the frame. Fuses and LED status indicators are on the front of the unit, while input, output, and alarm connections are on the rear. Two green LEDs are provided, and each one indicates power supply status for a bank of ten load circuits. When any fuse fails, a red LED is turned on to indicate the condition, and allow technicians to quickly find the panel with the failed fuse. Form C relay contacts, which are isolated from the frame and power circuits, indicate when there is a fuse failure by providing normally open and normally closed contacts to activate remote alarm or monitoring systems. These contacts are available via a rear-panel barrier strip. Additional DuraComm services are available to customize the DP-20GMT series distribution panels to your specifications.

SPECIFICATIONS

| | |
|-----------------------|--|
| Input Voltage | -40 to -60VDC |
| Input Current | 100 Amps Max |
| Output Amperage | 15 Amps Max per Position, 20 positions |
| Size | 1.75" H x 19" W x 11" D |
| Weight | 8.0 lb, nominal |

INSTALLATION WARNING

The individual user should take care to determine, prior to use or installation, whether this device is suitable, adequate or safe for the use intended. Since individual applications are subject to great variation, DuraComm makes no representation or warranty as to the merchantability, suitability or fitness of these units for any specific application.

DO NOT block any of the cooling vents on the sides and always allow adequate ventilation by not installing the unit inside tightly closed spaces. Physical mounting position is not critical but the cooling vents must not be blocked.

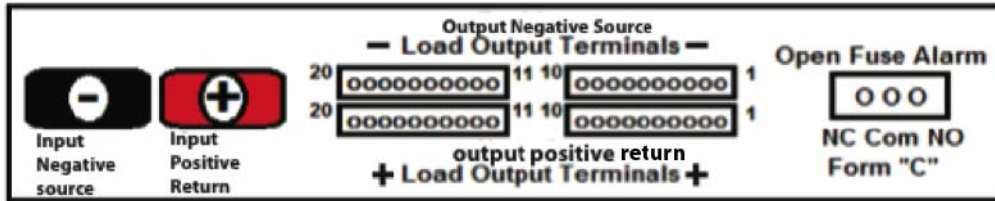
Connect the Power Supply Positive to the red terminal labeled, "Input Positive (+) return".
 Connect the Power Supply Negative to the black terminal labeled, "Input Negative (-) source".
 Connect your Load to the Screw Terminals (1~ 20), Positive (+) on Upper Terminals, Negative (-) to Lower Terminals.

This completes the installation. Failures require investigation as to cause and/or repair of the unit.

THERE ARE NO USER SERVICEABLE PARTS INSIDE. SERVICE AND REPAIR MUST BE REFERRED TO QUALIFIED FACTORY PERSONNEL

APPLICATIONS

- Inputs and outputs are isolated from frame.
- For use in positive frame grounding situations
- Has isolated remote relay contacts for fuse alarms (form C)
- Green LED for DC power on indication
- Red LED for fuse alarm indication



CONDUCTOR PRETREATMENT

All kinds of copper conductors can be clamped without treatment. DO NOT solder tin stranded conductors. The solder yields and fractures under high pressure. The result is increased contact resistance and excessive temperature rise. Additionally, corrosion has been observed due to the fluxes. Notch fractures at the transition from the rigid tinned part to the flexible conductors are also possible. Ferrules can be used as a protection when wiring stranded conductors. Copper ferrules prevent the current transfer from being influenced by dissimilar metals and remove the risk of corrosion. Always use the correct tool to crimp the ferrule.

RECOMMENDED COPPER WIRE SIZE FOR CURRENT CAPACITY

(Insulated Wire, Single Conductor in free air)

| <u>Current Level in Amperes</u> | <u>Wire Size</u> |
|--|---|
| <7 AMPERES | 20 AWG Up to 5 feet 18 AWG Up to 10 feet |
| 14 AMPERES | 18 AWG Up to 5 feet 16 AWG Up to 10 feet |
| 20 AMPERES | 16 AWG Up to 5 feet 14 AWG Up to 10 feet |
| 30 AMPERES | 14 AWG Up to 5 feet 12 AWG Up to 10 feet |
| 40 AMPERES | 12 AWG Up to 5 feet 10 AWG Up to 10 feet |
| 50 AMPERES | 10 AWG Up to 5 feet 8 AWG Up to 10 feet |
| 70 AMPERES | 8 AWG Up to 5 feet 6 AWG Up to 10 feet |
| 100 AMPERES | 6 AWG Up to 5 feet 4 AWG Up to 10 feet |

LIMITED WARRANTY

DuraComm warrants to the initial end user, each power supply manufactured by DuraComm to be free from defects in material and workmanship, when in normal use and service for a period of three years from the date of purchase, from an authorized DuraComm dealer.

Should a product manufactured by DuraComm fail or malfunction due to manufacturing defect, or faulty component, DuraComm, at its option, will repair or replace the faulty product or parts thereof, which, after examination by DuraComm, prove to be defective or not operational according to specifications in effect at the time of sale to the initial end user. The product that is replaced or repaired under the provisions of this warranty, will be warranted for the remainder of the original warranty period, only, and will not extend into a new three year warranty period.

The limited warranty does not extend to any DuraComm product which has been subject to misuse, accidental damage, neglect, incorrect wiring not associated with manufacture, improper charging voltages, or any product which has had the serial number removed, altered, defaced, or changed in any way.

DuraComm reserves the right to change, alter, or improve the specifications of its products at any time, and by so doing, incurs no obligation to install or retrofit any such changes or improvements in or on products manufactured prior to inclusion of such changes.

DuraComm requires any product needing in or out of warranty service to be returned to DuraComm. All requests for warranty service must be accompanied by proof of purchase, such as bill of sale with purchase date identified. DuraComm is not responsible for any expenses or payments incurred for the removal of the product from its place of use, transportation or shipping expenses to the place of repair, or return expenses of a repaired or replacement product to its place of use.

The implied warranties which the law imposes on the sale of this product are expressly LIMITED, in duration, to the three (3) year time period specified herein. DuraComm will not be liable for damages, consequential or otherwise, resulting from the use and operation of this product, or from the breach of this LIMITED WARRANTY.

Some states do not allow limitations on the duration of the implied warranty or exclusions or limitations of incidental or consequential damages, so said limitations or exclusions may not apply to you. This warranty gives you specific legal rights which vary from state to state.

This warranty is given in lieu of all other warranties, whether expressed, implied, or by law. All other warranties, including WITHOUT LIMITATION, warranties of merchantability and fitness or suitability for a particular purpose, are specifically excluded. DuraComm reserves the right to change or modify its warranty and service programs without prior notice.

DuraComm® Corporation
6655 Troost Avenue
Kansas City, MO 64131
Phone (816) 472-5544 Fax (816) 472-0959
www.duracomm.com