



**DM-11**  
**Demultiplexer Unit**  
**Part of MDM-11 Mux/Demux System**

**OPERATION INSTRUCTIONS**

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# ConLAB

## 1. GENERAL DESCRIPTION

The DM-11 is the de-multiplexer unit of MDM-11, Mux/deMux system. The DM-11 unit receives the M-11 multiplexed current loop output, and generates 16 current loop outputs having the same magnitude and order as input to the M-11 unit.

The DM-11 is equipped with flashing alarm LED and a dry contact. The alarm will be on whenever an interruption occurs in the communication leads.

Each current loop output is equipped with an LED indicator that lights only when the current loop is closed.

## 2. MOUNTING INSTRUCTIONS

The DM-11 is designed for standard DIN rail mounting.

Place the unit on the upper part of the mounting rail with the fastening tab facing down. Loosen the tab slightly, using a suitable flat screwdriver, and attach the unit to the rail. After releasing the tab, make sure that the unit is fastened securely in place.

## 3. FUSE REPLACEMENT

In order to replace a blown fuse, the unit has to be disassembled, as follows:

<b>Warning:</b>	Never install the data input fuse rated more than 100mA, and main fuse rated more than 800mA
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- 3.1 Take off both terminal strips by removing the four screws at the edges.

**Note:** This action does not require disconnecting the cables connected to the strips.

- 3.2 Remove the front panel using a suitable flat screwdriver. Press down gently on the plastic spring-loaded tabs located in the slots on either side of the unit.
- 3.3 Disconnect the flat connectors that connect the front panel, printed circuit.
- 3.4 Replace the blown fuse.

## 4. ASSEMBLING THE UNIT

The DM-11 unit includes two printed circuit cards designated as P.N 7052 and P.N 7053. The printed circuit cards should occupy the slots in the enclosure according to fig 1.

Connect the flat cables among the printed circuit cards and the front panel.

The front panel must be inserted into the grooves on both sides of the case while pressing down until a distinct "click" is heard. Assembly is completed by laying the terminal strips in place.

**Note:** The terminal strips are polarized. They must not be placed backwards.

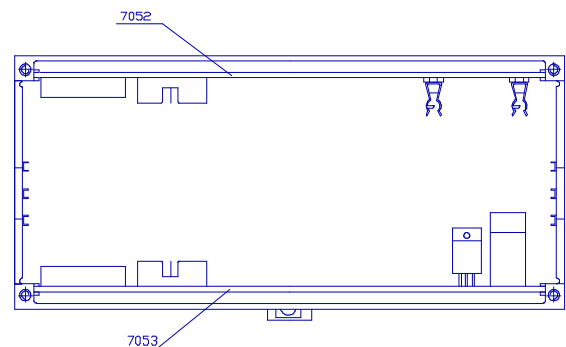


Fig 1.

## 5. DISTANCE SETTING

The DM-11 scan rate depends on the distance between the multiplexer and the de-multiplexer. On the printed circuit 7052, there are three jumper switches marked as 500, 1Km, 2Km; put the jumper on the proper distance selector.

## 6. ALARM

The DM-11 alerts by flashing the Alarm LED and activation the Alarm relay, whenever there is any interruption in the communication. The interrupt can occur due to disconnection or short-circuit of the connection wires, or due to failure of the M11 power supply. When the failure is corrected, the Alarm flashing LED will turn off and the relay will release.

## 7. CONNECTION OF DM-11 TO M-11

The DM-11 is connected to the M-11 by twisted pair leads. In a hostile environment, shielded cable is recommended.

To avoid ground-loop problems it is recommended to use a floating power supply and to ground, if necessary, the negative terminal of the DM-11 power supply.

Connection Diagram:

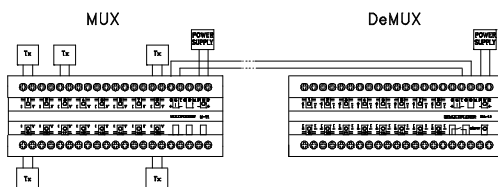


Fig 2

## 8. SPECIFICATIONS

INPUT : Multiplexed current loop

OUTPUTS: 16, 0-20mA current loops

ACCURACY (Refer to Current Input):  
±0.1% typical, maximum ±0.25% of span

TRANSFER RATES:

500m: Aprox. 1000 ch/sec.  
1Km: Aprox. 500 ch/sec.  
2Km: Aprox. 250 ch/sec.

ALARM:

Dry contact (closed when alarm)  
Contact rating 1A at 230Vac max.

INDICATORS:

1 Yellow LED, Power-On indicator  
16 Red LED, 4-20mA output activity indicator  
1 Alarm red LED

SUPPLY:

Supply Voltage  $24 \pm 10\%$  Vdc (regulated)  
Supply Current Consumption 500mA

FUSES:

Main Fuse:  
630mA, 5/20mm Fast Blow  
Analog Input Fuse:  
63mA, 5/20mm Fast Blow

TEMPERATURE:

Operating : 0 to 70°C (32 to 158°F)  
Storage: -25 to +85°C (-13 to 185°F)

HUMIDITY:

5 to 95% Relative, non condensed

HOUSING: Plastic Polycarbonate

Box: According to IP50 DIN 40050

Terminals: According to IP20 DIN 40050

WEIGHT: 0.6 Kg. (1.5 lb.)

DIMENSIONS: 73Hx200Wx121mmD  
(2.88"x7.88"x4.76")