



16 Channel Current Multiplexer/ De-Multiplexer System MDM-11

Function: The MDM-11 is a current multiplexer/de-multiplexer system that transfers 16 channels of data between two points via a single pair of wires. The front end of the system (M-11) accepts up to 16 process standard 4 to 20mA inputs, multiplexes these at a user selectable scan rate of up to 1000 channels per second and transmits them up to a distance of 2Km maximum. At the receiving end (DM-11) the analogue channels are reproduced in the same order and magnitude as the inputs. The DM-11 unit also has an alarm (flashing LED and volt free contact output) which is operated whenever there is a communications failure of any description (multiplexer failure, cable break or short circuit).

SPECIFICATIONS

M-11

INPUTS:

DC Current

16 channels of two or four wire transmitters
4 to 20mA

Input Impedance

Addition to loop resistance:
470 ohms maximum

Transmitter Power Supply

$V_{SUPPLY} - 3$ Volts DC

Transmitter Current

Limited to 40mA maximum

Scan Rate

User selectable

Channels/sec	Distance
250	2000 Mtrs
500	1000 Mtrs
1000	500 Mtrs

OUTPUT:

Output

Multiplexed current loop

DM-11

INPUT:

Input

Multiplexed current loop

OUTPUTS:

DC Current

16 channels of 4 to 20mA
continuous current loop

Alarm

1 x Volt Free Contact
Contact Rating: 1A at 230 Volt AC
maximum

SUPPLY:

M-11

Power Supply Voltage

15 to 40 Volts DC

Current Consumption

20mA maximum
not including transmitter currents

Fuses

5 x 20mm quick blow

Main Fuse: 630mA

Channel Fuse: 63mA

Pilot Lights

Yellow LED shows Power ON
Red LED per active channel

DM-11

Power Supply Voltage

24 Volts DC $\pm 10\%$

Current Consumption

500mA maximum
(includes the outputs)

Fuses

5 x 20mm quick blow

Main Fuse: 630mA

Multiplexed Input Fuse: 63mA

Pilot Lights

Yellow LED shows Power ON
Red LED per active channel
Red LED for ALARM indication

GENERAL:

Accuracy

$\pm 0.1\%$ of span typical,
 $\pm 0.25\%$ maximum

Communication Cable

2 wire cable

N.B. Transmitters connected to MDM-11 have to comply with the total loop resistance of the M-11 (470 ohms) and the two way lead resistance

Operating Temperature Range

0 to $+70^{\circ}\text{C}$

Storage Temperature Range

-25 to $+85^{\circ}\text{C}$

Operating/Storage Humidity Range

5 to 95% RH non-condensing

Housing

DIN Rail mounting plastic,
polycarbonate

Protection Level

Housing: IP50 DIN40050

Terminals: IP20 DIN40050

Weights

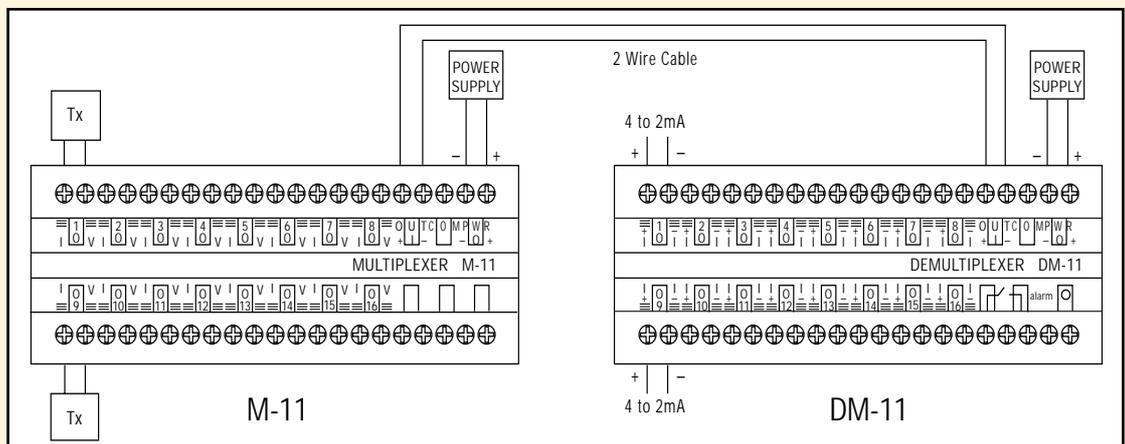
M-11 800 gms

DM-11 750 gms

MECHANICAL DETAILS

For Mechanical Details
see page 7.6.

TERMINATION DETAILS



ORDERING DETAILS

(a) Give identification code, i.e. MDM-11
If Lee-Dickens to configure:

(b) Specify scan rate required, i.e. 500 channels per second