

Specifications	
Outputs	
Quantity	: 16
Output type	: Open-collector NPN transistor
External supply voltage	: +5V to 80Vdc (maximum)
Current sinking	: 200 mA per channel (maximum)
Leakage current	: 100 µA (maximum)
Protection	: Built-in flywheel diodes for each output
Vc (on)	: 1,8 V dc (maximum) at 200 mA dc
Response time	: 100 µs
Electrical Connections	
Wire Gauge	: 2,0 mm ² (maximum) : 0,5 mm ² with a maximum overall outside diameter of 2mm, is recommended.
Connectors	:Screw terminals. 8 outputs per common. Ribbon header in parallel with screw terminals. Conforms to Standard Omniflex 20-ribbon cable pinouts
Power Supply (from base)	
Supply Voltage	: +5 V dc +12 V dc
Power Consumption	
All outputs on	:4 mA (5 V); 68m a (12 v)
All outputs off	: 60 mA (5 V); 45 mA (12 V)
Diagnostic Indicators (LEDs)	
16 x O/P (output) (red)	: LED ON = transistor ON
Identification Codes	
Scan Code	: 9
Module ID	: 7
Environment	
Operating Temperature	: -25°C to +60°C (-13°F to +140°F)
Storage Temperature	: -40°C to +70°C (-40°F to +158°F)
Operating Humidity	: 5% to 95% (non-condensing)
Mass	
Including packaging	: 410g (14,5 oz)
Excluding packaging	: 320g (11,3 oz)
Ordering Information	
Order Code	: M1341



INSTALLATION GUIDE

16 Digital Outputs (16 DO) Module

M1341

General Description

The M1341 is a 16-channel output module with open-collector NPN transistor outputs capable of driving 200mA per channel up to 80Vdc. An external power supply is required to power the transistor loads. The M1341 can be inserted or removed while the system is live.

There are 2 differences between the M1341A and M1341B modules:

- 1) The B version has a greater current capacity per channel and,
- 2) It has a 20-way ribbon header in addition to the standard Maxiflex screw terminals for the outputs.

The header is located just behind the terminals and the user may use either. The ribbon header is useful for those systems where the outputs are driving other standard products which conform to the Omniflex ribbon header standard pinout (e.g. Omni-16 displays).

Opto-coupled isolation 1 500 Vrms is provided between the bus and the output circuits. Sixteen red LEDs indicate the status of the outputs. (Transistor ON = LED on/transistor OFF = LED off).

A 2 byte word is written by the Maxiflex CPU to the module where each bit corresponds to one output. Logic "1" turns the transistor on and logic "0" turns it off.

Scan and module identity (ID) codes are used by the CPU for addressing and diagnostics. If the module is removed or becomes faulty, this status will be detected by the CPU immediately, and can be read via the network.

Module Positioning

The M1341 module may only be inserted in one of the I/O positions of the Maxiflex base (clearly marked on base). Any of the bases may be used. Refer to the Maxiflex bases General Instructions leaflet (Part no: 98-8952-930-00X) for more detail on base layout, module insertion and module removal.

Figure 1 : Layout of the 7 I/O Master Base

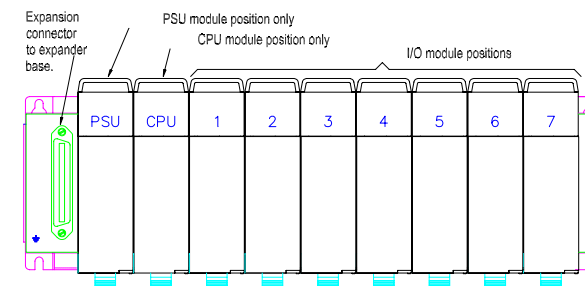


Figure 2 : Layout of the M1341

The diagram shows the layout of the M1341 device. The front panel features 16 red LEDs arranged in a 4x4 grid, labeled 1 through 16. Above the LEDs is a label 'M1341B 16DO'. To the right of the LEDs is a label 'LED cover'. Below the LEDs is a label 'Door'. The device has a 2-part removable terminal block and a 20-way ribbon header. A wiring access point is shown at the bottom. A red box highlights the internal wiring diagram, which shows the connection of the 16 LEDs to the terminal block and the 20-way ribbon header. The wiring diagram includes a table of connections:

M1341B 16DO		
1	⊗	O/P 1
2	⊗	O/P 2
3	⊗	O/P 3
4	⊗	O/P 4
5	⊗	O/P 5
6	⊗	O/P 6
7	⊗	O/P 7
8	⊗	O/P 8
9	⊗	O/P 9
10	⊗	O/P 10
11	⊗	O/P 11
12	⊗	O/P 12
13	⊗	O/P 13
14	⊗	O/P 14
15	⊗	O/P 15
16	⊗	O/P 16
17	⊗	COMMON -ve
18	⊗	COMMON +ve

OUTPUTS : NPN open collector
transistors (sink)
Voltage : 5 - 80 Vdc
Current : 200mA per o/p

Note: The LEDs can only be seen when illuminated, as they are located behind the LED cover.

Figure 3 : Electrical Connections

LOAD (200 mA MAXIMUM)

O/P 1

O/P 2

O/P 3

O/P 4

O/P 5

O/P 6

O/P 7

O/P 8

O/P 9

O/P 10

O/P 11

O/P 12

O/P 13

O/P 14

O/P 15

O/P 16

NEGATIVE COMMON

POSITIVE COMMON

2-Part Screw Terminals

20-way Ribbon Header mounted behind Screw Terminals

Outputs in parallel to screw terminals and 20-way ribbon header.

V_F = VOLTAGE FIELD SUPPLY

5 V to 80 V dc