5/12 VDC TTL Output Positive Logic, 64 Circuits IC655MDL593

This module provides 64 circuits for controlling user output loads. 32 LEDs on the module indicate the status of the 32 Outputs associated with one connector. A toggle switch above the top (J1) connector allows the user to choose the group of inputs being monitored (A to D, or E to H). The top 16 LEDs perform a dual function. They normally provide a visual indication of the status of each input circuit with each LED reflecting the ON or OFF state of the corresponding circuit. Second, when commanded through programming, they indicate the starting I/O address for the module.

Field wiring connections to output loads are made to two 37-pin subminiature D-type connectors (labeled J1 (A-D) and J2 (E-H)), mounted on the front of the module. One connector is used for two groups with 16 inputs in each group. The four groups are labeled A and B (group 1), C and D (group 2), E and F (group 3), and group 4 is G and H. The pins in each group are labeled 1 to 8, for example: group 1 is A1 to A8 and B1 to B8. Each group has a common connection, labeled C. The user must connect a 5 to 12 VDC power supply to each group, which supplies both the load and the output circuits. All groups can be powered from a common source or from different sources.

Table 30. Specifications for 5/12 VDC TTL Output Positive Logic - 64 Circuits

Output Circuit Type	NPN Transistor, open collector with internal pull-up
Number of Circuits	64
Internal Circuit Grouping	Four groups, 16 circuits per group
Operating Voltage	5 to 12 VDC
Peak Voltage	16.5 VDC
Maximum Current	90 mA at 15 VDC (current sinking); 1.44 amps/common
Maximum Leakage Current	.01 mA
ON Voltage Drop	0.4 V at 90 mA/15 V
OFF to ON Response	< 0.1 ms
ON to OFF Response	0.1 ms
Status Indicator Location	Logic side
Internal Power Consumption (5 VDC)	50 mA + 3.6 mA per On point + 2.5 mA per On LED Total; 360 mA (typical), 450 mA (maximum)
External Power Supply Required	5 to 15 VDC, ±10%
Weight	36 oz (560 g)

Table 31. Maximum Voltage - Current

Vcc		5 VDC	12 VDC	15 VDC
Maximum Current Sourcing	at Output Voltage 3.5V	0.1 mA	-	-
	at Output Voltage 6.0V 8.0V	- -	2.5 mA 1.0 mA	- -
	at Output Voltage 6.0V 8.0V 10.0V 12.0V	- - - -	- - - -	3.8 mA 2.8 mA 1.8 mA 0.8 mA
Maximum Current Sinking	at ON Voltage Drop 0.4V	15 mA	60 mA	90 mA

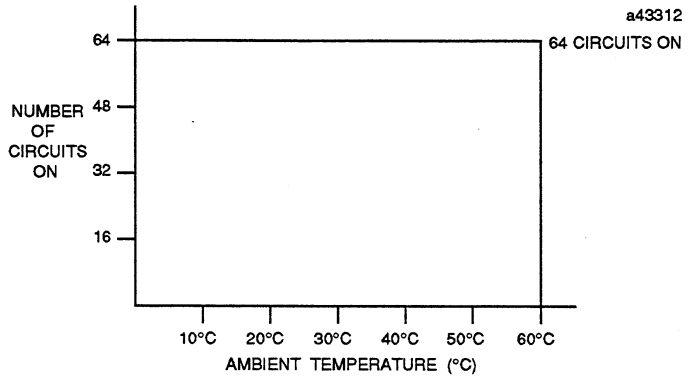

Figure 47. Output Points vs. Temperature for IC655MDL593

Wiring Information - IC655MDL593

The following figure provides the information required for connecting field devices to this module.

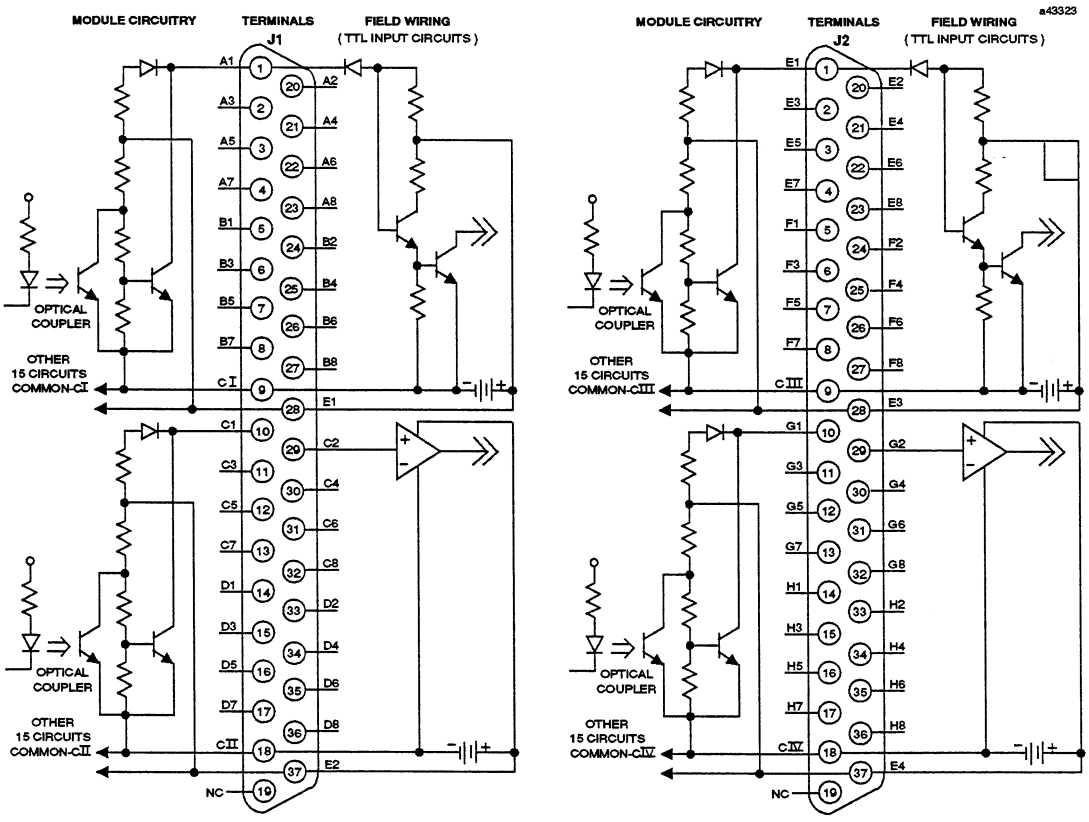

Figure 48. Field Wiring and Typical Circuit for IC655MDL593