M168
12-BIT MAGNITUDE COMPARATOR

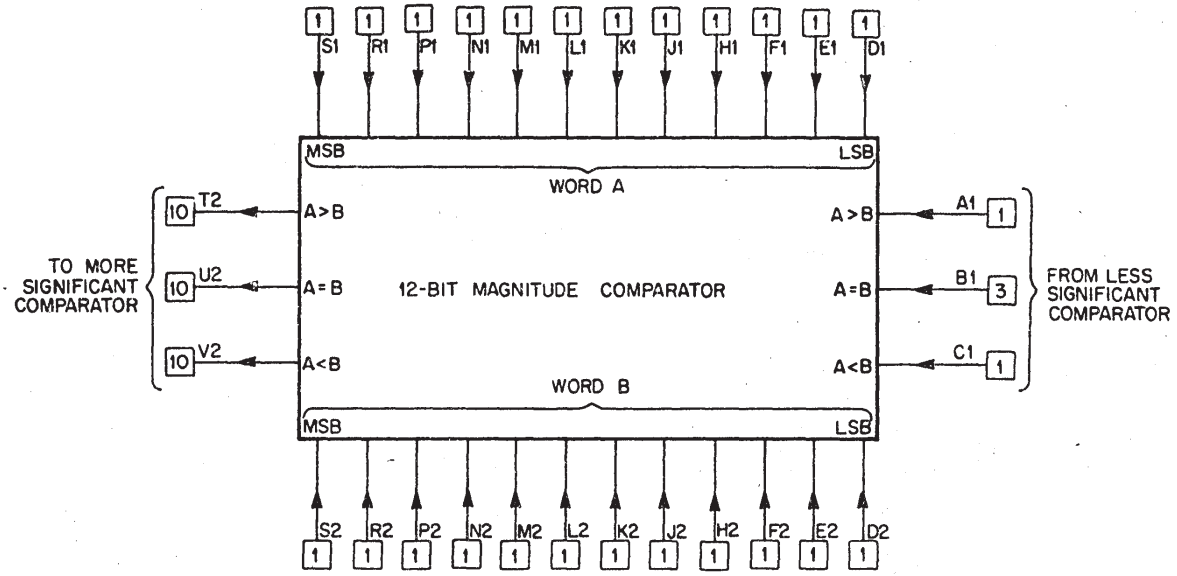
NUMERIC

M SERIES

Length: Standard
Height: Single
Width: Single

Price:

$45



Volts	Power mA (max.)	Pins
+5	250	A2
GND		C2, T1

The M168 12-Bit Magnitude Comparator performs magnitude comparison of two 12-bit words. When the comparison inputs are not connected to the comparison outputs of another M168, the "A=B" input must be connected to a logical "1". The A>B and A<B inputs may individually be made a logic "1" or logic "0". However, connecting both these inputs to GND, a logic "0" is recommended.

The M168 Comparator may be cascaded to compare longer words. The outputs T2, U2, and V2 should be connected to the corresponding inputs of the next comparator which are A1, B1, and C1 respectively. The inputs of the first comparator must all be made a logical "1".

The propagation delay time from Data (A and B) to outputs is 48 nsec typical and 72 nsec maximum for one unit.

When cascading the total typical time is 48 nsec plus 36 nsec per additional unit. The total maximum time is 72 nsec plus 54 nsec per additional unit.

INPUTS				OUTPUTS		
A > B	A = B	A < B	Data	A > B	A = B	A < B
1	0	0	A > B	1	0	0
1	0	0	A = B	1	0	0
1	0	0	A < B	0	0	1
1 or 0	1	1 or 0	A > B	1	0	0
1 or 0	1	1 or 0	A = B	0	1	0
1 or 0	1	1 or 0	A < B	0	0	1
0	0	1	A > B	1	0	0
0	0	1	A = B	0	0	1
0	0	1	A < B	0	0	1