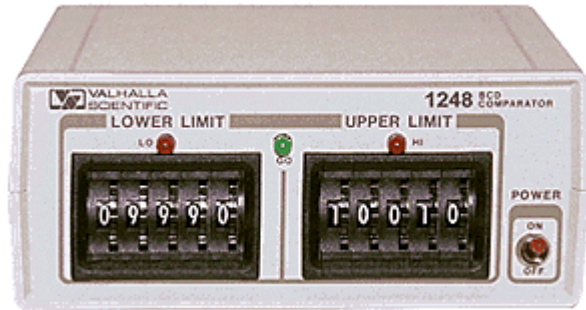


# 1248 DUAL LIMIT COMPARATOR



## Features:

- × Compact Size
- × Light Weight
- × Go/No Go Visual Indication
- × 2 Relay Closure Outputs
- × Covers all Values from 0 to full scale.

## The GO/NO-GO Decision Maker

The Valhalla Model 1248 Dual Limit Digital Comparator helps eliminate operator interpretation of ohmmeter readings. Operator error and fatigue are significantly reduced while realizing an increase in testing efficiency of up to 70%. The unit's compact size, only 2 ½" high, easily sits on top of any Valhalla Ohmmeter fitted with BCD.

### A GO/NO-GO Decision Maker

This compact, light weight unit can be used with all Valhalla Scientific test instruments and other manufacturer's instruments which have fully parallel BCD (bit parallel, byte serial BCD) outputs. Programmed by hand, it provides a GO/NO-GO, In-Tolerance/Out-of-Tolerance indication. All input readings are checked to see if they lie between the "LO" and "HI" limits set by individual thumbwheel switches on the front panel.

### Simplicity of Operation

A common application is receiving inspection of precision resistors by unskilled operators using a

Valhalla Digital Ohmmeter in combination with a Model 1248 comparator. If, for example, the resistors to be inspected and tested are 1 K $\Omega$   $\pm$ 0.1%, the upper limit would be set at 10010, and the lower limit to 09990. If measured resistance is within these limits, the GREEN indicator will remain illuminated, indicating a within tolerance condition. If either RED indicator is illuminated, that respective limit has been exceeded and the test sample should be rejected. Five decades of separate and easy-to-use thumbwheel switches are provided to preset the desired lower and upper limits, in base 10 format.

### Controller Applications

The 1248 provides relay closure outputs which can be used to implement an automated batch sorting system for components or products, operate counters, sound alarms or shut off a process. Resistors, transformers, strain gauges, thermocouples and thermistors are a few items which could be individually tolerated in this manner for matching purposes.

**VALHALLA**  
**SCIENTIFIC**

Valhalla Scientific, Inc.  
8318 Miramar Mall  
San Diego CA, 92121 USA  
P: 858/457-5576 / F: 858/457-0127  
Web: [www.valhallascientific.com](http://www.valhallascientific.com)  
e-mail: [valhalla@valhallascientific.com](mailto:valhalla@valhallascientific.com)

## Specification

Input Code:	Five decade binary coded decimal (BCD) 8-4-2-1 parallel data : 1-2-4-8 bit parallel, byte serial, positive "1" state.
Input Logic:	Standard CMOS level, TTL, Compatible True "1" State = + 3 to 5 VDC ; Compatible False "0" = 0 to +0.8 VDC.
AC Power Supply Options:	
AC-1:	provides internal 115 VAC $\pm$ 10% 50-60Hz power supply & rear panel mounted 6' power cord.
AC-2:	is 230VAC $\pm$ 10% power supply.
Input Data Cable "IDC-2":	The standard compatible pin to pin 3' cable for use with relay closure capability. Compatible with all Valhalla BCD outputs except 4300B.
Input Data Cable "IDC-3":	Similar to "IDC-2" but is compatible with 4300B Digital Ohmmeter only.
Mating Connector:	50 pin Amphenol 57-30500 style connector for the fabrication of custom interface cables.
Relay Contact Closure (RC):	Provides relay contact closure when the corresponding high or low limit is exceeded (standard on normal version 1248 Comparators). Contact rated @ 100V, 100mA maximum.
Upper and Lower Limit Set:	Five thumbwheel switches settable 00000 to 99999.
Out-of-Limit Indication:	Illumination of appropriate red LED for either upper or lower limit exceeded. Relay contact closure for appropriate limit exceeded (closed state).
In-Limit Indication:	Illumination of a single Green LED, no relay contact closure (open state).
Rear Panel Connector:	50 pin Amphenol P/N 57-405000.
Size:	152mm L x 152mm W x 63mm H (6" x 6" x 2.5")
Weight:	1.4KG/3 lbs NET, 2KG/5 lbs Shipping
Power:	$\pm$ 5 VDC, 50mA (available on all Valhalla BCD outputs except Model 4300B) AC power supply optional.

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Web: [www.valhallascientific.com](http://www.valhallascientific.com)  
e-mail: [valhalla@valhallascientific.com](mailto:valhalla@valhallascientific.com)