



4115/04

WINDOW COMPARATOR

FEATURES

- ADJUSTABLE LIMITS FOR "HIGH", "LOW", AND "GO"
- UP TO 200mA LOAD CAPABILITY (each output)
- INPUT PROTECTION

DESCRIPTION

Model 4115/04 is a hybrid IC window comparator in a double width DIP. The unit has three inputs - one for a voltage that sets the upper limit, another for a voltage that sets the lower limit, and a signal input. There are three mutually exclusive outputs - HIGH, LOW and GO. When an output is ON it will sink up to 200mA of current. This input diode protected device is designed to work with input voltages of up to $\pm 10\text{VDC}$, and will not be harmed by voltages to $\pm 15\text{VDC}$. The 4115/04 will drive a variety of loads including lamps, relays, MOS circuitry, and high noise immunity logic as well as DTL and TTL devices.

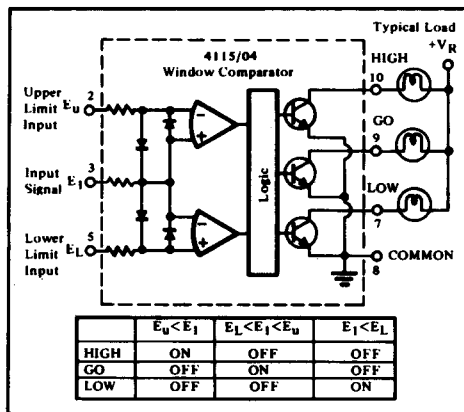
INSTALLATION

Separate connections should be made from each power supply common ($+15\text{VDC}$, -15VDC and V_R) to the 4115/04 common (pin 8).

To avoid unwanted pickup or chattering it may be necessary to include bypass capacitors from the $\pm 15\text{VDC}$ supply pins (13 and 14) to the module common pin (8).

APPLICATIONS

- PRODUCTION LINE TESTING
- TEMPERATURE CONTROLS
- INDUSTRIAL ALARMS
- LEVEL DETECTORS/CONTROLS



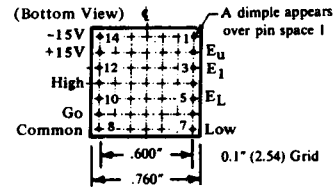
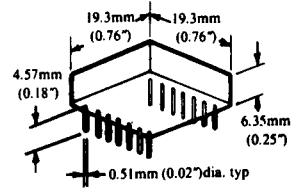
Model 4115/04 Transfer Characteristics.

ELECTRICAL SPECIFICATIONS

Typical performance at 25°C and with rated supply unless otherwise noted.

MODEL	4115/04	Units
INPUT All Inputs Maximum Safe Input	$\pm 10V$ into $6k\Omega$ (min) ± 15	V
ACCURACY D.C. Resolution (min) Voltage Offset (referred to input) at 25°C (max) vs Temperature (max) Over Temperature Range (max) vs Power Supply Switching Speed Total Switching Time at 30mV Overdrive	± 0.2 ± 2 ± 30 ± 7 ± 50 300	mV mV $\mu V/^\circ C$ mV $\mu V/V$ μsec
OUTPUT Impedance to COMMON from all Outputs OFF state ON state Load Supply Voltage (V_A) Load Current Steady State Transient (absolute maximum) 1 Second Duration Saturation Voltage (V_{CE}) (max) at 200mA	> 1 3 0 to +30 +200 +400 0.7	M Ω Ω V mA mA V
TEMPERATURE RANGE Rated Specifications Derated Performance Storage	-25 to +85 -40 to +85 -55 to +100	$^\circ C$ $^\circ C$ $^\circ C$
POWER SUPPLY REQUIREMENTS Rated Supply Voltage Derated Performance Quiescent Drain (max)	± 15 ± 12 to ± 18 ± 30	VDC VDC mA
To achieve best results use stable quiet reference sources and drive signal input from low impedance source. Noise and drift in input sources readily masks the inherently high resolution of the device.		

MECHANICAL SPECIFICATIONS



WEIGHT: 0.24 oz. (6.80 grams)

MATERIAL: Black Exoxy

PIN: Pin material and plating composition conform to Method 2003 (solderability) of Mil-Std-883 (except paragraph 3.2).

CONNECTOR: Fits any commercial dual-in-line connector.

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ANALOG CIRCUIT FUNCTIONS