

DW08 I/O conversion panel

July 1, 1971

DW08

Digital's DW08 Conversion panel enables any PDP-8/E computer to economically communicate with I/O devices of opposite logic levels. The DW08 contains its own integral power supply and takes up only 5-1/4 inches in height in a standard 19 inch rack.

DW08A

The DW08 Positive-to-Negative Bus Converter accepts the positive I/O bus of a PDP-8/L, PDP-8/I with a KA8/I or PDP-8/e and KA8/E, KD8/E option. Outputs consist of a Negative Bus, as well as a continuation of the Positive Bus. Positive Bus signal levels are defined as high (+3 volts) and low (0 volts); Negative Bus signals are defined as high (0 volts) and low (-3 volts). The name bus denotes a combination of input (received by the computer) and output (sent by the computer) signals.

The Positive Bus (with TTL logic levels of 0 volts and +3 volts) inputs on five M904 cable connectors at locations A01 to A05. The continued positive bus outputs on five M903 or M904 cable connections at locations B01 to B05. Input level conversion produces a high level out (0 volts) for a high level in (+3 volts); and a low level out (-3 volts) for a low level in (0 volts). Certain timing signals used on PDP-8/E computers (BIOP1, BIOP2, BIOP4, BTS3 (1), BTS 1 (1), and B INITIALIZE) are clamped and inverted before level conversion. (See Fig. 1)

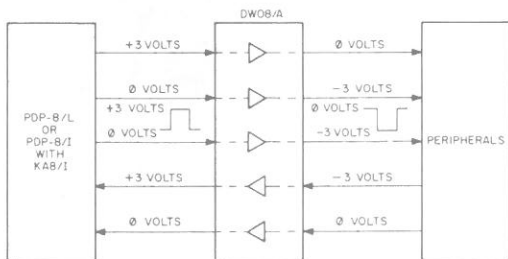


Fig. 1 DW08/A conversion levels

The Negative Bus inputs and outputs on eleven WO11 or WO31 cable connections at location A13 to A23. Input signals to the computer on the Negative Bus are level converted to produce a low level out (0 volts) on the Positive Bus for a high level in (0 volts) and a high level out (+3 volts) for a low level in (-3 volts). (See Fig. 1)

DW08B

The DW08B Negative-to-Positive Bus Converter is for

use on the Negative Bus PDP-8/I only. Negative Bus output levels of 0 volts and -3 volts are converted to +3 volts and 0 volts respectively. Input signals to the computer on the Positive Bus are level converted to produce a low level out (-3 volts) for a high level in (+3 volts) and a high level out (0 volts) for a low level in (0 volts). Certain timing signals used on the PDP-8/I (BIOP1, BIOP2, BIOP4, BTS 3 (1), BTS 1 (1), and B INITIALIZE) are clamped and inverted before level conversion. (See Fig. 2)

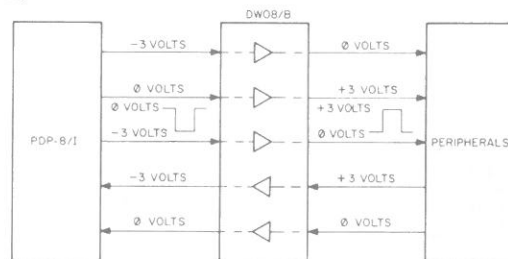


Fig. 2 DW08/B conversion levels

The Negative Bus inputs on eleven WO11 or WO31 cable connectors at locations A01 to A11. The continued Negative Bus outputs on similar cable connectors at locations B01 to B11. The Positive Bus outputs on five M903 or M904 cable connectors at locations A20 to A24.

cable lengths

Delays occur within the DW08A unit due to level conversion, which effects the maximum length of the I/O buses of the PDP-8/I, PDP-8/L or PDP-8/E. The effective I/O cable length consumed by the DW08A is 10 feet, which must be subtracted from the maximum permissible bus lengths from the PDP-8/I, PDP-8/L or PDP-8/E to the farthest device on the converted bus.

specifications

Dimensions:	5 1/4" high for 19" mounting. A cabinet depth of 15" is required because of the power supply.
AC Input:	120 VAC or 240 VAC $\pm 10\%$, 50 Hz to 60 Hz
Power Consumption:	115 watts
Heat Dissipation:	300 BTU/hour
Weight:	20 lbs.

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