



Four Circuits Per Card

GP-- 371502

Input		Output		Delays (ms)	
Min.	Max.	Min.	Max.	Turn On	Per
43.0	53.0	-5.1	0.7		Min.
0		-7.9	-12.6	Max.	1.5
				Turn Off	Min.
					Max.

Converter W to U Line

The GP - - card consists of four identical relay to CTDL integrator circuits. Each circuit converts a W line (+48v) input from the normally open contacts of a relay to a CTDL U line output. The U line output normally drives into CTDL P type logic blocks.

Circuit Description

Assume that the integrator circuit is connected as shown above. When the relay is down and the N/O contacts are open, current flow from the -20v supply to ground and to the load (+6v) provides a -U output (-10.2v) from the integrator network. When the relay is energized and the

N/O contacts close, +48v is applied to pin B. Current flow through the integrator network increases and gives a +U output at pin H of the integrator. C21 filters the oscillating input caused by the "bouncing" of the contact points when they are first made. C25 filters the noise component injected in the circuit. External loading conditions affect the down output voltage seen at pin H.

The integrator turn-on delays were measured from the time the relay was picked until the output of the integrator crossed the -6v reference. The turn-off delays were measured from the time the relay points opened until the output of the integrator crossed the -6v reference level.