

# Delay Lines

## ACTIVE DELAY LINES

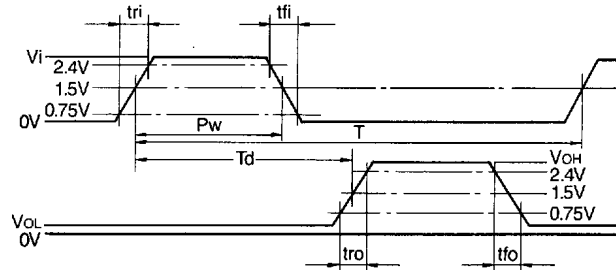
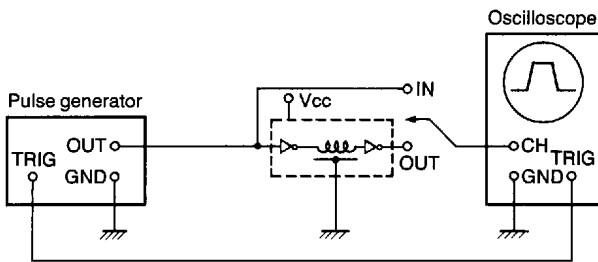
### TEST CONDITIONS

#### Input test conditions

Signal level $V_i$ (V)	3.2
Pulse width $P_w$	$3T_d$
Repetition cycle $T$	$10P_w$
Rise time $t_r$ (nsec.)	5 max.
Operating voltage $V_{cc}$ (V)	$5 \pm 0.1$
Temperature ( $^{\circ}\text{C}$ ) [ $^{\circ}\text{F}$ ]	$25 \pm 1$ [ $77 \pm 1.8$ ]

#### Output load conditions

Logic "1" output	20TTL load/tap ( $I_{OH}/I_{IH} = 1\text{mA}/50\mu\text{A} = 20$ )
Logic "0" output	10TTL load/tap ( $I_{OL}/I_{IL} = 20\text{mA}/2\text{mA} = 10$ )



- tro: Output pulse rise time
- tfo: Output pulse fall time
- VOL: Output "L" level voltage
- VOH: Output "H" level voltage
- Vi: Signal level
- Td: Delay time
- Pw: Pulse width
- tri: Input pulse rise time
- tfi: Input pulse fall time

## CHARACTERISTICS

Item	Rated value			Measurement conditions
	Minimum	Standard	Maximum	
H level input voltage	$V_{IH}$ (V)	2	—	—
L level input voltage	$V_{IL}$ (V)	—	—	0.8
H level output voltage	$V_{OH}$ (V)	2.7	3.4	$V_{cc} = 4.75\text{V}$ , $V_{IH} = 2\text{V}$ , $I_{OH} = -1\text{mA}$
L level output voltage	$V_{OL}$ (V)	—	—	$V_{cc} = 4.75\text{V}$ , $V_{IL} = 0.8\text{V}$ , $I_{OL} = 20\text{mA}$
H level input current	$I_{IH}$ ( $\mu\text{A}$ )	—	—	50 (SAD series: 20) $V_{cc} = 5.25\text{V}$ , $V_i = 2.7\text{V}$
L level input current	$I_{IL}$ ( $\mu\text{A}$ )	—	—	-2 (SAD series: -0.6) $V_{cc} = 5.25\text{V}$ , $V_i = 0.5\text{V}$
Operating current	$I_{OCL}$ (mA)	—	47 (EDL series: 45, SAD series: 24)	65 (EDL series: 70, SAD series: 28.5) $V_{cc} = 5.25\text{V}$ , $V_{IL} = 0\text{V}$
Operating voltage	$V_{cc}$ (V)	4.75	5	5.25

Series	Shapes and dimensions (mm) [Inches] $\pm 0.25$ [.010]	Connections and pin numbering	Weight (g) max.	Fig.
ADL S type			2	1
L type			2	1

# Delay Lines

Series	Shapes and dimensions (mm) [inches] ± 0.25 [.010]	Connections and pin numbering	Weight (g) max.	Fig.
EDL			1.5	2
SAD			1.8	3

## RATINGS

Part No.	Total delay time (nsec.)	Delay time between taps (nsec.)	Rise time (nsec.) max.	Minimum input pulse width (nsec.)	Fig.
ADL-020□*H	20 ± 2	4 ± 2	4	8	1
ADL-025□*H	25 ± 3	5 ± 2	4	10	
ADL-050□*H	50 ± 3	10 ± 2	4	20	
ADL-060□*H	60 ± 3	12 ± 3	4	24	
ADL-075□*H	75 ± 5%	15 ± 3	4	30	
ADL-100□*H	100 ± 5%	20 ± 3	4	40	
ADL-125□*H	125 ± 5%	25 ± 3	4	50	
ADL-150□*H	150 ± 5%	30 ± 3	4	60	
ADL-200□*H	200 ± 5%	40 ± 3	4	80	
ADL-250□*H	250 ± 5%	50 ± 3	4	100	
EDL-040B	40 ± 4	20 ± 3	4	24	2
EDL-050B	50 ± 5	30 ± 4	4	30	
EDL-060B	60 ± 5	30 ± 4	4	36	
EDL-070B	70 ± 5	30 ± 4	4	42	
EDL-080B	80 ± 5	30 ± 4	4	56	
EDL-090B	90 ± 5	40 ± 4	4	63	
EDL-100B	100 ± 6	40 ± 4	4	90	
EDL-110B	110 ± 6	50 ± 5	4	100	
EDL-120B	120 ± 7	60 ± 6	4	120	
EDL-150B	150 ± 9	70 ± 7	4	150	
SAD-020	20 ± 2	4 ± 2	4	8	3
SAD-025	25 ± 3	5 ± 2	4	10	
SAD-050	50 ± 3	10 ± 2	4	20	
SAD-060	60 ± 3	12 ± 3	4	24	
SAD-075	75 ± 5%	15 ± 3	4	30	
SAD-100	100 ± 5%	20 ± 3	4	40	
SAD-125	125 ± 5%	25 ± 3	4	50	
SAD-150	150 ± 5%	30 ± 3	4	60	
SAD-200	200 ± 5%	40 ± 3	4	80	
SAD-250	250 ± 5%	50 ± 3	4	100	

\*□: Please specify the type code S or L, when ordering.