

# 3 INPUT/3 OUTPUT DIGITAL DELAY LINE (Hi-Rel Package)

**HY5100**

### FEATURES

- TTL Schottky buffered inputs and outputs
- Hermetically sealed metal package
- Low profile 14-pin DIP
- Customs also available

### SPECIFICATIONS

#### INPUT TEST CONDITIONS:

SUPPLY VOLTAGE (V<sub>CC</sub>) 5.0 VDC  
PULSE VOLTAGE Logic 1 = 3.2 volts  
Logic 0 = 0.0 volts

RISE TIME 3.0 nsec.  
PULSE WIDTH 2 x total delay  
DUTY CYCLE 20%

#### DRIVE CAPABILITIES:

LOGIC 0 10 TTL loads/output max.  
20 TTL loads/unit max.  
(20 mA max.)  
LOGIC 1 20 TTL loads/output and unit max.  
(-1 mA max.)

#### OPERATING CHARACTERISTICS:

OUTPUT RISE TIME 4 nsec. max. (measured from 0.75V to 2.4V)

DELAY TOLERANCES ±1 nsec or ±5% whichever is greater

SUPPLY CURRENT 70 mA max.  
SUPPLY VOLTAGE (V<sub>CC</sub>) 4.75 to 5.25 VDC  
LOGIC 1 INPUT CURRENT 50 μA @ V<sub>CC</sub> = 5.25V and V<sub>IH</sub> = 2.70V

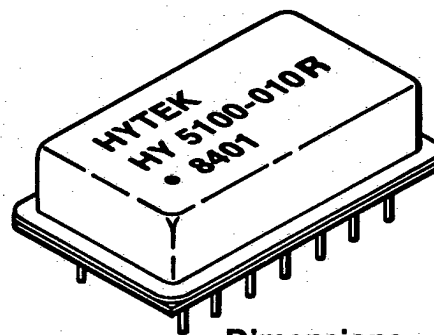
LOGIC 0 INPUT CURRENT -2 mA max. @ V<sub>CC</sub> = 5.25V and V<sub>IL</sub> = 0.50V

LOGIC 1 OUTPUT VOLTAGE 2.7V min., 3.4V typical  
LOGIC 0 OUTPUT VOLTAGE 0.5V max.  
LOGIC 1 INPUT VOLTAGE 2V min. to 5.25V max.  
LOGIC 0 INPUT VOLTAGE 0.8V max.

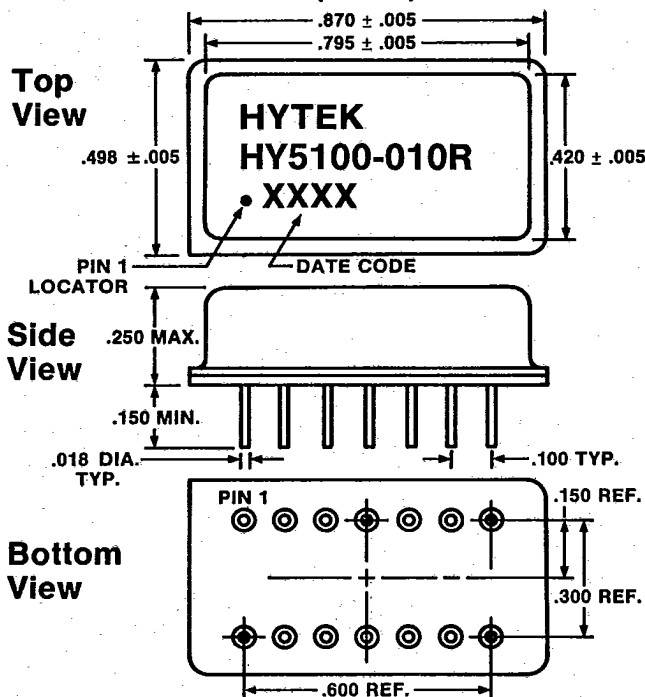
SHORT CIRCUIT OUTPUT CURRENT -40 mA min. to -100 mA max.  
V<sub>CC</sub> = 5.25V, one output shorted for max. 1 sec. duration

OPERATING TEMPERATURE 0°C to 70°C (optional -55°C to +125°C)

STORAGE TEMPERATURE -55°C to +125°C  
HERMETICITY leak rate < 1 X 10<sup>-8</sup> ATM. CC/S



**Dimensions (Inches)**

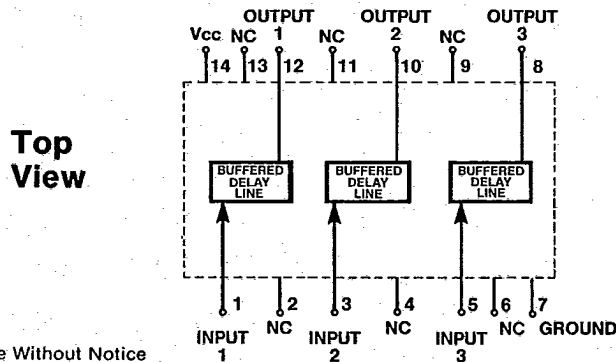


DELAY AT EA. OUTPUT	
Part No.*	Delay Output (nsec.)
HY5100-010R	10
HY5100-012R	12
HY5100-014R	14
HY5100-016R	16
HY5100-018R	18
HY5100-020R	20
HY5100-025R	25
HY5100-030R	30
HY5100-035R	35
HY5100-040R	40
HY5100-045R	45
HY5100-050R	50

† Suffix designates:

- R = standard 0°C to 70°C operation
- M = standard -55°C to +125°C operation
- Z = 883 screening

Specifications Subject to Change Without Notice



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