

## **Specifications (Continued):**

### **Electrical**

All measurements taken at 25°C unless otherwise specified.

### **Input Power**

#### **Power consumption**

3.5 watts, typical for tachometer only  
Add 0.5 watts per remote display  
Add 2.0 watts for 12V out  
9.5 watts max.

#### **DC Voltage**

12-30 volts. Reverse polarity protected. Available on terminal blocks and din rail in parallel (TACHPAK only).

#### **AC Voltage**

80-264 Vac 50-60 Hz

#### **Power Sharing**

If DC input and AC input are both supplied, DC will be loaded above approximately 15 volts. Below 15Vdc input, AC will be loaded.

#### **Output Power**

Regulated to 12 volts @ 150mA when input voltage is 13.6 volts and above. Below 13.6 volts, output voltage  $\approx$  input voltage  $-1.5V$ .

### **Input Signal Characteristics**

#### **Channel A & B**

##### **Frequency**

Upper Limit: 50 kHz absolute maximum  
(20 $\mu$ sec period); 40kHz typical  
Lower Limit: 0.005 Hz absolute minimum  
(200 sec. period); .05 Hz typical  
Minimum Pulse Width: 0.5  $\mu$ sec.  
Wave shape: Square or Sinusoidal

##### **Input Impedance**

12 k $\Omega$  typical

##### **Input Sensitivity**

Upper and Lower Limit:  $\pm 30$  volts max. (AC or DC).  
Logic 0 and Logic 1 thresholds are user adjustable from 200mV to  $\pm 28$  volts in approx. 20mV steps  $\pm 3\%$ .  
200mV peak absolute min. input sensitivity.

##### **Common Mode Rejection Ratio**

$>40$  db @1kHz typical

##### **Electrical Isolation**

Channel A, B and Direction share common ground  
Channel A, B or Direction to output: 500 Vrms  
Channel A, B or Direction to ground: 500 Vrms

### **Verify and Reset**

#### **Frequency**

Essentially DC, Minimum Pulse Width: 250  $\mu$ sec.

#### **Input Impedance**

10mA current regulated

#### **Input Sensitivity**

3.5 volts min. pulse to ground

#### **Common Mode Rejection Ratio**

$>40$  db @ DC typical

#### **Electrical Isolation**

Signal to signal 500 Vrms  
Signal to ground 500 Vrms

### **Direction**

#### **Frequency**

Essentially DC  
Minimum Pulse Width: 0.5  $\mu$ sec.

#### **Input Impedance**

12 k $\Omega$  typical

#### **Input Sensitivity**

Upper and Lower Limit:  $\pm 30$  volts max. (AC or DC).  
Logic 0 and Logic 1 thresholds are user adjustable from 0 to 28 volts in approx. 20mV steps  $\pm 3\%$ .

#### **Common Mode Rejection Ratio**

$>40$  db @1kHz typical

#### **Electrical Isolation**

Channel A, B and Direction share common ground  
Direction to output: 500 Vrms  
Direction to ground: 500 Vrms

### **Output Characteristics**

#### **Relays (Mechanical)**

##### **Physical**

Form C

##### **Contact Rating**

10A @125/250 Vac, 6A @ 277 Vac, 5A @ 30Vdc,  
0.5A @ 100Vdc  
2500 VA

##### **Response Time (operate and release)**

Input to output 16.5 msec max.  
(10 msec relay only)

##### **Electrical Isolation**

1500 Vrms, 1 minute coil to contacts

##### **Switchpoint Accuracy**

Internal instrument accuracy to alarm setpoint:  $\pm 0.005\%$