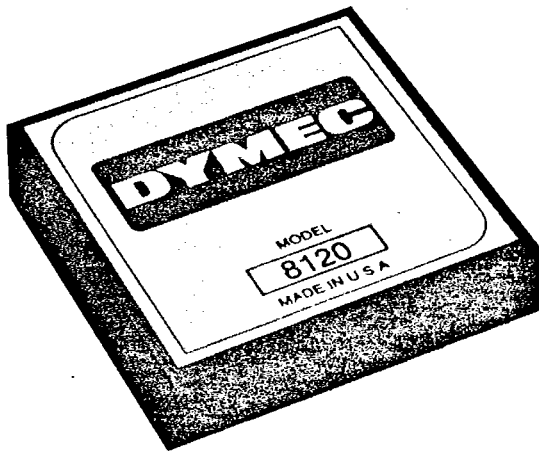


DYMEC

MODEL 8120

ULTRA STABLE 100 KHZ VOLTAGE TO FREQUENCY CONVERTER



FEATURES

- DC to 100 KHz Output Response
- $\pm 0.005\%$ Maximum Non-Linearity
- 5 PPM/ $^{\circ}\text{C}$ Gain T.C.
- $4\mu\text{V}/^{\circ}\text{C}$ Offset T.C.

VFC Is Stable within 5 ppm/ $^{\circ}\text{C}$

Designed for analytical instrumentation requiring 20-24 bit A/D conversion, the new 8120 voltage to frequency converter is linear within 0.005% over the entire DC to 100 KHz output range. Gain TC is 5 ppm/ $^{\circ}\text{C}$ and offset TC is $10\mu\text{V}/^{\circ}\text{C}$.

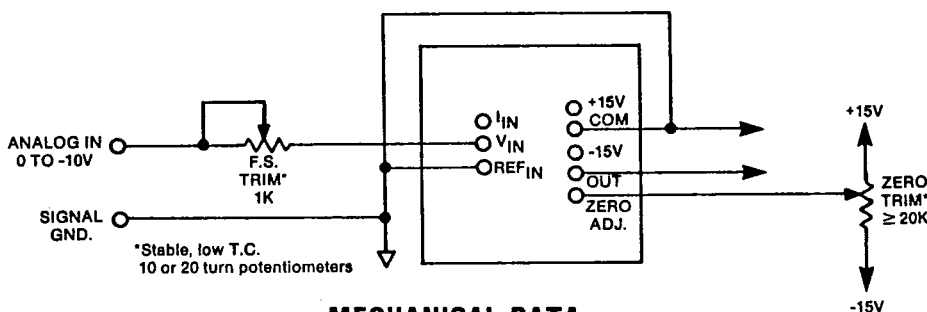
The 8120 is useful in long-term precision integration, frequency modulation of transducer signals, two-wire digital transmission in electrically hostile environments and similar applications, and arrives housed in a 2"x2"x0.5" module.

MODEL 8120 SPECIFICATIONS

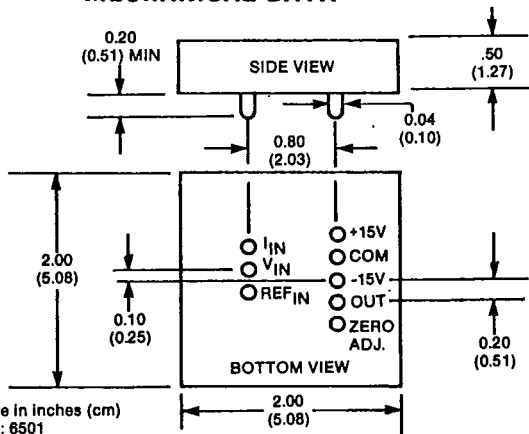
(Typical at +25°C and ±15V unless otherwise noted)

ANALOG INPUT	Voltage Range Current Range Overrange Offset Voltage (Adj. to Zero) Impedance Overvoltage Protection	-10μV to -10V 1NA to 200μA 10% Min. 2mV Typ., 7mV Max. 50K Typ., 40K Min. ±V _{CC} without damage
SCALING AND OUTPUT	Full Scale Frequency Non-Linearity Transfer Characteristic Gain Error (Adj. to Zero) Output Pulse: High Level Low Level Capacitive Load Capability Fanout Short Circuit Protection	100 KHz + 10% Overrange .002% F.S. Typ, .005% F.S. Max. F _{OUT} = 100KHz (E _{IN} /10V) F _{OUT} = 100KHz (I _{IN} /200μa) 1% Typ., 2% Max. Negative, 5μs wide typ. 3.5V ± 10% ≤ .3V at 16mA sink current 1000 pf 10 TTL Loads Indefinite Short to Ground
RESPONSE	Settling to .01% for Full Scale Step Input (10V) Overload Recovery	100μs 12 cycles of new frequency
STABILITY	Gain T.C. (PPM/°C F.S.) Offset T.C. (μV/°C) Warm-Up Time	5PPM Typ, 10PPM Max. 4 Typ., 10 Max. 2 minutes to specified accuracy
SUPPLY	Voltage Power Drain PSRR	±15V ±5% +25mA Typ., +35mA Max. -5mA Typ., -10mA Max. 70 DB
ENVIRONMENTAL	Operating Temperature Storage Temperature	0 to +70°C -55 to +125°C

ZERO AND FULL SCALE ADJUSTMENTS



MECHANICAL DATA



Phone DYMEC toll-free 1-800-225-1151