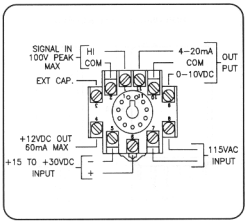
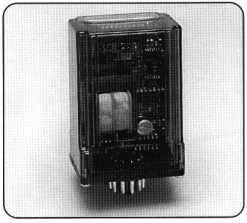


FDC SERIES
FREQUENCY TO DC CONVERTORS FOR VARIABLE RELUCTANCE & DIGITAL INPUTS



Case Dimension: H = 3.75" W = 2.62" D = 1.68"

The Electro FDC Series Frequency to DC Convertors combine full range frequency to DC conversion in one module via dip switch frequency range selection. The convertors are designed to provide an analog voltage and current output proportional to the rate of an incoming pulse train. The units can be powered by AC or DC and provide 4-20mA and 0-10V analog outputs.

MOUNTING: Modules plug into 11 pin octal socket #58410 (not included), suitable for panel or DIN rail mounting. All electrical connections are via screw terminals.

POWER REQUIREMENTS MODEL FDC: 97 to 132 VAC, 50/60 Hz, 3 VA, or 15 to 30 VDC @ 200 mA.
MODEL FDC-230: 196 to 264 VAC, 50/60 Hz, 3VA, or 15 to 30 VDC @ 200 mA.

OPER. TEMP. RANGE: -40 to 185F (-40 to 85C)

INPUT SIGNAL: A or B (switch selectable) 100 V peak max.
A) 100 mV peak min.; 10% to 65% duty cycle; low level must be < 100 mV.
B) 1.0 V peak min.; 10% to 90% duty cycle; low level must be < 1.0 V.

INPUT WAVEFORM: Sine, square, sawtooth or triangle.

INPUT IMPEDANCE: 20 K ohms.

OUTPUT SIGNAL: 0 to 10 VDC into 1.5K ohm min. and 4 to 20 mA DC into 400 ohms max. Ripple is 50 mV max. using factory settings. Ripple vs. response time can be user optimized.

NON-LINEARITY: ± 1% of full scale @ fixed temperature and power supply.

POWER OUTPUT: 12VDC @ 60 mA max. for active sensor requirements.

Typical Response Time
@ V Ripple ≤ 50 mV

FULL SCALE ADJ. RANGE	RESPONSE TO 90% OF FULL SCALE OUTPUT	FULL SCALE ADJ. RANGE	RESPONSE TO 90% OF FULL SCALE OUTPUT
25-30 Hz	15.0 Seconds	800-1100 Hz	800 Milliseconds
30-50 Hz	10.5 Seconds	1100-1600 Hz	550 Milliseconds
50-100 Hz	6.0 Seconds	1600-3000 Hz	300 Milliseconds
100-180 Hz	3.0 Seconds	3000-6000 Hz	160 Milliseconds
180-275 Hz	2.2 Seconds	6000-9000 Hz	75 Milliseconds
275-500 Hz	1.4 Seconds	9000-18000 Hz	40 Milliseconds
500-1000 Hz	.7 Seconds	18000-30000 Hz	25 Milliseconds

Note: Response time will decrease if V ripple is increased.