



4636

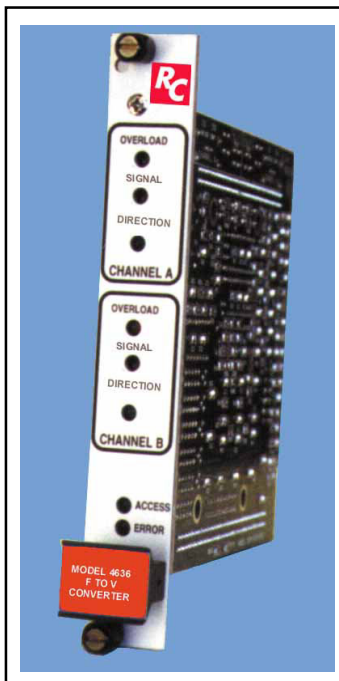
Frequency to Voltage Converter

Description

The programmable 4636 dual-channel Frequency to Voltage Converter provides signal conditioning for frequency output transducers. These include magnetic pickups and other logic or pulse type signals whose output frequencies range between DC and 10 kHz.

The 4636 contains input isolation to prevent ground loop problems, input sensitivity selection to optimize for zero crossing or pulse type signals, direction sensing (quadrature or level) for configuring the output for either forward or reverse speeds, three step low pass output filtering, two step excitation voltage, and four calibration frequencies. Front-panel LEDs keep the user informed of signal presence and direction on each channel, and they warn of programming errors or signal overload. Onboard configuration selections are clearly labeled, making in-field modifications quick and convenient.

To assure long life, the 4636 is manufactured with the finest quality ceramic components for maximum stability over a wide temperature range. The rugged aluminum front panel includes ¼ twist lock downs for quick yet secure mounting in any Model 4000 Signal Conditioning chassis.



4636 Dual Channel F to V Module

Features

- **Inputs: Isolated or Non-isolated**
- **Sensitivity Selection**
- **Direction Sensing**
- **Low Pass Filtering**
- **Excitation**

Specifications

F-V Converter

Conversion Range	62.5 Hz/V to 2.5 kHz/V (12 choices)
Conversion Rate	Sample/hold every 3 ms
Frequency Response	
Isolated	50 Hz to 25 kHz
Non-isolated	2Hz to 25 kHz
Accuracy	±1%
Linearity	±0.025%
Input Sensitivity ^(typ)	
Isolated	5V p-p @ 50 Hz, 350 mV @ 10 kHz
Non-isolated	250 mV p-p
Direction Input	5V logic level (50 V Max)
Noise RTO	0.5 mV rms
Input Impedance	20 KW
Max Input Voltage	50V rms

Output

Voltage Range	±10V @ 15 mA
Stability	±100 ppm/°C
Short Circuit Protection	Yes

Low Pass Filter

Fixed 2 pole Butterworth	1 Hz, 10 Hz
Fixed 1 pole Butterworth	2 kHz (wideband)

Calibration

Source	500 Hz, 1 kHz, 2 kHz, 5 kHz
Accuracy	±100 ppm

Excitation

Type	5V @ 150 mA 15V @ 75 mA
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Environmental

Power Requirements	+15V, 40 mA (plus 15V excitation current) -15V, 20 mA +5V, 285 mA
Temperature Range	0°C to 50°C

Signal Conditioning 4000 Series