

Applications

RC to DC Interface
 R.O.V.s, U.A.V.s., R.P.V.s.
 Aerospace
 Special Effects
 Robotics / A.I.
 Animatronics

Features

Plugs Directly into Futaba!
 Type Radio Receivers.
 Stable 12 bit Output
 Wide power supply range
 Stores last valid pulse
 RC input for our 12PWM Amps

This precision device converts standard R/C servo style PPC, PCM signals to an analog DC output with 12 bit resolution. It incorporates a charge pump so the output is stable with input changes such as: low battery supply voltage, pulse amplitude, frequency and temperature. Programable options include: analog output scaling within 0 to 5 volts, positive or negative going, valid pulse width cut off points, and a second order filter for different time constants (T/C) output filter rates.

All programs are factory set.

Customer can request special options to meet there needs.

Specifications

INPUTS:

Supply Voltage: 3.25 to 6.25 Volts
 Current: 10ma. typ.
 R/C Input: Standard servo type PCM. Positive going.
 Input Pulse Width Conversion Range: 1.00 to 2.00ms
 Input Pulse Width Range Limits: 0.5 to 2.5 ms (Standard RC Radio)
 Pulse frequency range valid from 25-125 Hz. (50 Hz. Normal)
 Input Logic Gate: 74HCT Series
 Input Resolution: 0.4us
 Connector: Futaba Male, 12i

OUTPUTS:

Programmable Output Range: .050V min, up to 4.95V max.
 DC Output Device: Op Amp (Op295 @ 15ma.)
 Power-Up Output, with no input pulses defaults to its lowest DC value.
 Resolution: 12 bits ±1 LSB
 Output Drift: ±.5% full scale and per 10°C
 +5V Ref. Output: 10ma. User assignable.
 Programmable Time Constance (T/C) output filter.
 Connector: Futaba Female, 3i
 Size/Weight: 2.5i X .5i X .35i / .7oz.
 Temp. Range: -15° to +70°C

Order Info:

P/N RC/DC12 X T
 X= Output Voltage Range A or B
 T= T/C (Time Constance) 2 - 9

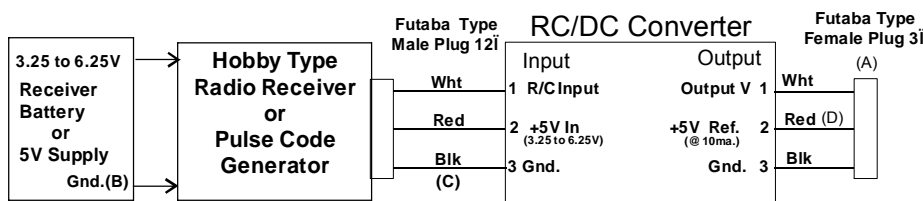
Standard Options are:

X= Output Ranges:
 A) 0.05 to 4.95 Volts
 B) 1.25 to 3.75 Volts

T= T/C Filter Rate Codes
 2= 10msec (Fast)
 3= 20msec. (Std. use)
 6= 80msec (Smooth)
 9= 1 sec. (Very Slow)

12PWM Servo Amps for CK Products	Retract	Extend	Volt Code
	Min.	Max.	
L-SERIES Servos	0.05V	4.95V	A
W-SERIES Servos	1.25V	3.75V	B
2KW-Series	0.75V	4.25V	C
R-SERIES Servos	0.05V(ccw)	4.95V(cw)	A
User Requested Output	_____	_____	_____

Typical hook-up



- (A) If you add an output extension cable, use a shielded cable & Gnd shield at one end for noise prevention.
- (B) RC/DC 5V Supply Gnd. should be isolated from any other power supply grounds to prevent ground loops or:
- (C) Multi power supply systems using one common ground we suggest to disconnect the RC/DC Input ground, using only its output ground to the system common ground. This will prevent this ground loop and improve system stability.
- (D) Can be use to enable a Servo Amp. Signal needs to be supplied to servo amps before their power is.

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