



This module provides two channels of pulse width modulation to analogue conversion. Conversion technique uses precision references and a switched capacitor circuit. The frequency range the device can operate on is not critical, the higher the frequency up to a certain point the smoother the output signal will be. For typical applications four kilohertz would be a good choice. Lower frequencies will result in some ripple on the output. This device uses an analogue conversion process and therefore conversion may have some analogue ripple. Lower frequencies provide higher ripple.

There are various configurations available, the standard configuration has one channel offering a plus and -10 V signal while the other offers 0 to 10 V, where output zero is to not to 10 V. Other versions offer twin channels of plus and -10 V outputs. The output voltage is designed not to exceed 10 V, since most inverters et cetera saturate slightly below 10 V. Therefore the output voltage may reach between 9.8 to 10 V for full-scale.

Pin No. /marking	Signal Name
1) IP0	Pulsed width modulation signal Input 0 (logic level PWM input)
2) AGND	Analogue Ground
3) AGND	Analogue Ground
4) IP1	Pulsed width modulation signal Input 1 (logic level PWM input)

Four Pin Input connector

Pin No./Marking	Signal Names
1) VCC input	VCC supply +VE (14 to 30 volts DC supply input)
2) Op0	Analogue Output 0
3) AGND	Analogue Ground
4) AGND	Analogue Ground
5) Op1	Analogue Output 1
6) GND	Power supply ground supply (0 volts)

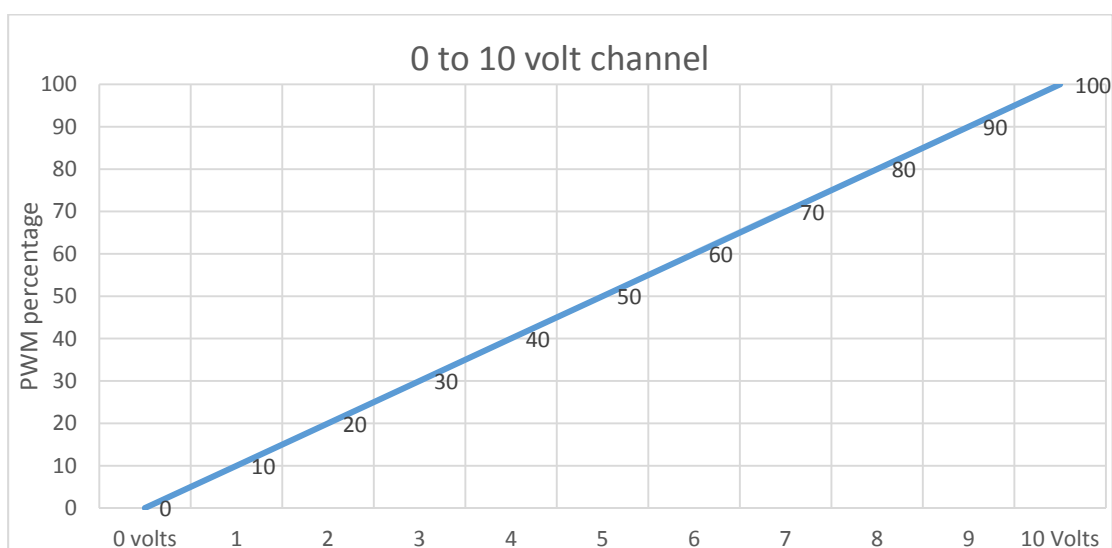
Six Pin Output Connector

Minimum Frequency Input	50 HZ
Maximum Frequency Input	➤ 100 KHz
Signal logic low level	0.5 volts
Signal logic high level	1.5 to 5 volts
Supply voltage range	14 to 30 volts DC
Output voltage (0 to 10 volt range)	9.8 to 10 volts
Output current	1 mA.
Supply current	< 50 mA.
Effective resolution	12 Bits

Specification

Typical uses:

PWM to analogue conversion is typically used for controlling inverters and speed controllers for machine tool spindles etc. These devices work in the open loop mode and are not intended for precise control. These devices may be used in many other applications such as instrumentation, however they cannot be used for applications where rapid changes of analogue voltages is required. Note these devices do not provide signal isolation, either between channels or input and output.



PWM percentage	0 to 10 Volt version	+/-10 Volt version
0	0	-10
50	5	0
100	10	10