

# PWM to V/I Signal Converters


**P/N: PWMI-WG8-XX**

(3 Sec. response time)

**xx = 01** (0-5 VDC)

02 (0-10 VDC)

03 (0-20 mA)

04 (4-20 mA)

(100 mSec. response time)

**xx = 05** (0-5V DC)

06 (0-10 VDC)

07 (0-20 mA)

08 (4-20 mA)

10 (4-20 mA) with 500 Ohm load

(200 mSec. response time)

**xx = 11** (4-18 mA)

(750 mSec. response time)

**xx = 09** (0.5 – 4.5 VDC)

**Description:**

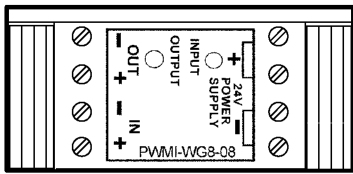
Signal Converters provide a compact solution for converting digital pulse width modulated (PWM) signal into current or voltage. Current to PWM converters are also available.

**Applications:**

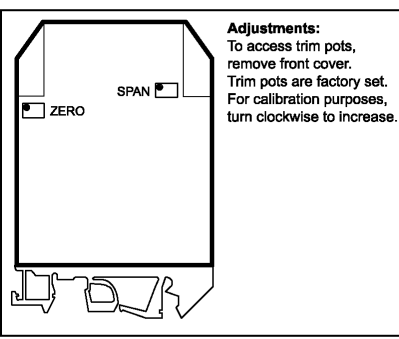
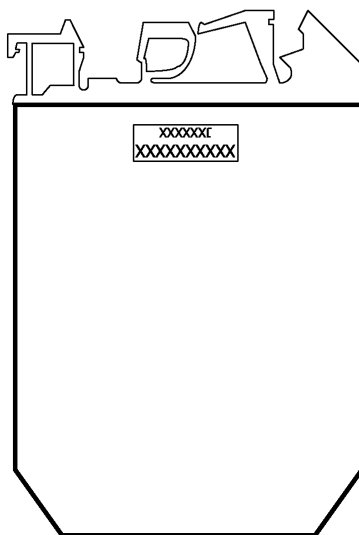
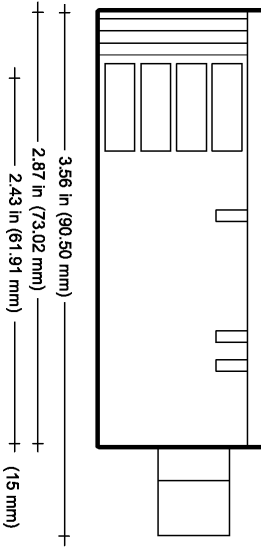
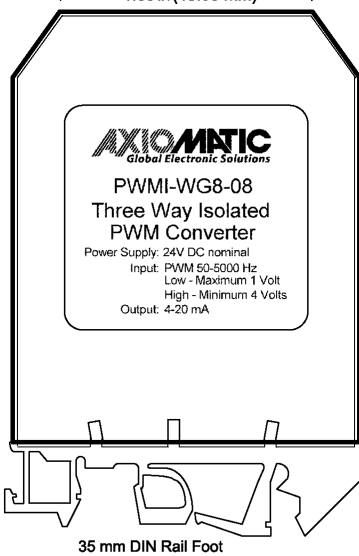
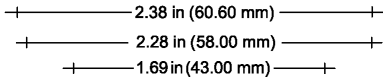
Industrial and machine controls

<b>Ordering Part Number:</b>	<b>PWMI-WG8-01, 02, 03, 04</b>	<b>PWMI-WG8-05, 06, 07, 08, 10</b>	<b>PWMI-WG8-11</b>	<b>PWMI-WG8-09</b>
<b>Response Time:</b>	3 Seconds	100 mSec.	200 mSec.	750 mSec.
<b>Technical Specifications:</b>				
All specifications are typical at nominal input voltage and 25 degrees C unless otherwise specified.				
<b>Input Specifications:</b>				
<i>PWM Frequency and Range</i>	Fully isolated PWM 5 to 1,000 Hz, 0-100%	Fully isolated PWM 50 to 5,000 Hz, 0-100%	Fully isolated PWM 64 Hz, 50-90%	Fully isolated PWM 15 kHz, 0-100%
<i>Input Voltage</i>	Low <1.5V High >3.5V (50V max.) TTL and CMOS compatible			Low <5.2V High >6.5V (50V max.)
<i>Input Impedance</i>	200kOhm		200kOhm	20kOhm
<b>Output Specifications:</b>				
<i>Voltage Output</i>	Fully isolated <i>PWMI-WG8-01, 02, 05, 06:</i> 0-5VDC or 0-10VDC (user selectable) <i>PWMI-WG8-09:</i> 0.5 to 4.5VDC Active output			
<i>Output Impedance</i>	1 Ohm Transient protection included Short circuit protection			
<i>Current Output</i>	<i>PWMI-WG8-03, 04, 07, 08:</i> 0-20 mA or 4-20 mA (user selectable) <i>PWMI-WG8-10:</i> 4-20 mA, Compliance Voltage 10VDC <i>PWMI-WG8-11:</i> 4-20 mA (4-18 mA factory setting)			
<i>Compliance Voltage</i>	<i>PWMI-WG8-01,2,3,4,5,6,7,8,9, 11:</i> 6.5VDC <i>PWMI-WG8-10:</i> Compliance Voltage 10VDC			
<i>Maximum Load Resistance</i>	<i>PWMI-WG8-01,2,3,4,5,6,7,8,9,11:</i> 325 Ohms <i>PWMI-WG8-10:</i> 500 Ohms			
<b>General Specifications:</b>				
<i>Power Supply</i>	24VDC+/-10% Transient protection			
<i>Reverse Polarity Protection</i>	Provided			
<i>Power Consumption</i>	30 mA			
<i>Operating Conditions</i>	-40 to 85 degrees C (-40 to 185 degrees F) 0-95% relative humidity			
<i>Adjustments</i>	Span and Offset (Zero) <i>factory configured</i>			
<i>Electrical connection</i>	#12 to #22 AWG screw terminals			
<i>Packaging</i>	PCB is conformal coated Housing (Wieland WEG8), Polyamide 6.6 plastic, UL94V-0, DIN rail mount			
<i>Dimensions</i>	60.6 x 90.5 x 28.5 mm (W x H x D) 2.38 x 3.56 x 1.12 inches excluding DIN rail			
<i>Weight</i>	0.15 lbs. (0.07 kg)			
<i>Protection</i>	IP20			
<i>Grounding</i>	The converter provides full isolation between input, output and power. Therefore, grounding is not necessary. If grounding is desired, however, the input, output and power grounds can be tied together.			

**Connections and Adjustments:**



- Signal Converter Models:**  
 PWMI-WG8-01 PWM to 0-5 V, 3 Sec.  
 PWMI-WG8-02 PWM to 0-10 V, 3 Sec.  
 PWMI-WG8-03 PWM to 0-20 mA, 3 Sec.  
 PWMI-WG8-04 PWM to 4-20 mA, 3 Sec.  
 PWMI-WG8-05 PWM to 0-5 V, 100 mSec.  
 PWMI-WG8-06 PWM to 0-10 V, 100 mSec.  
 PWMI-WG8-07 PWM to 0-20 mA, 100 mSec.  
 PWMI-WG8-08 PWM to 4-20 mA, 100 mSec.  
 PWMI-WG8-09 PWM to 0.5 to 4.5 V  
 PWMI-WG8-10 PWM to 4-20 mA, 500 Ohm Load  
 PWMI-WG8-11 PWM to 4-18 mA, 200 mSec.



**Adjustments:**  
 To access trim pots, remove front cover. Trim pots are factory set. For calibration purposes, turn clockwise to increase.

DIM: inches [mm]  
 PWMI-WG8-XX (Where xx = 01 to 11)  
 August 30, 2010 A. Wilkins  
 Axiomatic Technologies Corporation

Specifications are indicative and subject to change. Actual performance will vary depending on the application and operating conditions. Users should satisfy themselves that the product is suitable for use in the intended application. All our products carry a limited warranty against defects in material and workmanship. Please refer to our Warranty, Application Approvals/Limitations and Return Materials Process as described on <https://www.axiomatic.com/service/>.