Solenoid Valve Power Saving Control Box(PWM)

Model: PAB Series

1. Features

- Green and Power Saving Available
- Equivalent Full Range Temperature Coefficient 30ppm/ ºC
- Temperature-Compensated for Operation over Full Rated Operating
- Adjustable Hold on Current and Hold on Switch Timing
- Low Output Noise
- Fast Turn-on Response
- RoHS Compliant, 100% Pb & Halogen Free
- IP65

2. Description

The PAB (PWM) series is a small PCBA module that improves the service life and performance of the solenoid valve. This product is designed with a power-saving circuit to reduce the coil temperature so that the valve can operate normally when opening and closing. The PAB (PWM) series is a pulse width modulation circuit with lower noise issues. for different coils and solenoid valves, the PAB (PWM) series can provide different power-saving effects and adjust parameters to suit customer applications.

3. Applications:

- Solenoid Valve
- Valve Terminal
- Electric Locks
- Switchgear
- Relay
- Contactor

4. Technical Data

- 12 or 24VDC(-10%/+10%) Operating Vcc Range
- Pulse Output Current : 1200mA max.
- Holding Output Current : 500mA max.
- Power Saving Ratio Setting : adjustable
- Power Saving Covert Time 175~999mS Adj.(+/-10%)
- Low EMI & Magnet Loss , Thermal Reduce
- Operating temperature -20°C ~ 60°C

5. Electrical Parameter Table

MIT A type (24V , 0~60 °C)

parameter		minimum	maximum	unit
Power Supply On		21.6	26.4	V
Maximum pulse current			1.2	A
Maximum cont. current			0.5	A
Allowed coil resistance		full range		Ohm
pull in time		175	999	mS
holder power	5W	4500	5500	mW
	6W	5400	6600	
	7W	6300	7700	
	8W	8200	8800	
Operating Frequency		500		Hz
Duty Cycle		0~80%		%
ESD protection		4000		V
Operating Temperature		-20	60	℃

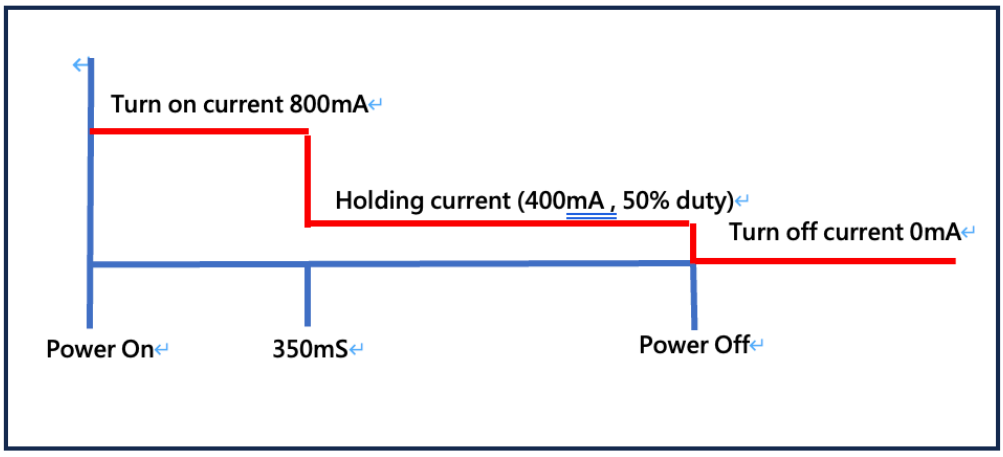
Note1 . If your application is out of the specifications listed above. We can then customize the driver to meet your most demanding needs.

Note2. build in fuse on board to be safety issue upon surge power occur.

Note3. VR version can adjust holding current from 25% ~ 75% power saving : CW to increase duty(current down) , CCW to reduce duty(current up)

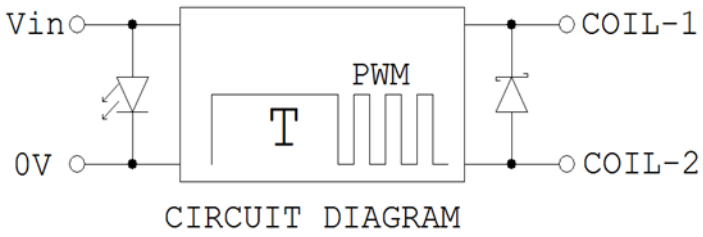
Note 4. NOT be able to work by incorrect coil , example : 24V input but 12V coil/choke specification selected that is not working correctly

6. Major Power Saving Function



Topology Example(50% duty)

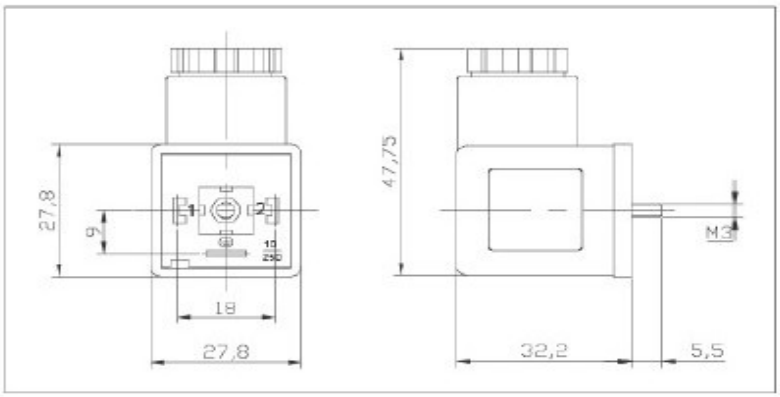
7. Major Circuit Diagram

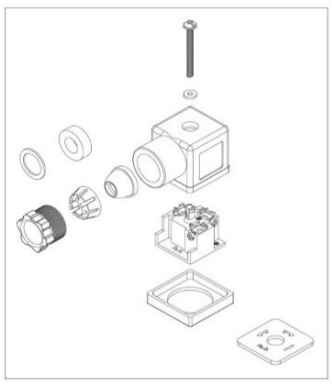


Surge Protection , LED x 1(power on)

8. PCBA Module & Control Box

unit : mm





9. Ordering Information

PA-VV-WW-SS-PWM

VV: Input Voltage range [unit: V]

VV value	**24**
Vcc min [V]	21.6
Vcc max [V]	26.4

WW: Duty cycle [%]

WW value	**30**	**40**	**50**
Duty Cycle [%]	30	40	50

SS: Translate Time (second stage time)[unit: ms]

SS value	**35**	**50**	**99**
Delay time	350ms	500ms	999ms

Notice

Specifications of the products displayed herein are subject to change without notice. MIT or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Purchasers are solely responsible for the choice, selection, and use of MIT products and MIT assumes no liability for application assistance or the design of Purchasers' products.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in MIT' s terms and conditions of sale for such products, MIT assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of MIT products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify MIT for any damages resulting from such improper use or sale.

Copy Rights and Disclaimer