B MODULES

- OPTIONAL RS-232/RS-485 CONTROL
- 0.5kV TO10kV&2W TO 10W
- HIGH STABILITY& LOW NOISE & RIPPLE
- SIX-SIDED SHIELDED
- ARC & SHORT CIRCUIT PROTECTED
- LOCAL AND REMOTE CONTROL
- OEM CUSTOMIZATION AVAILABLE

INTRODUCTION

Wisman's PM series of six-sided shielded are high performance products designed with hybrid topology of linear and switch mode power conversion techniques delivering lower noise with higher efficiency.It is applied to Photomultiplier Tubes(PMT),Solid state detectors,Ultrasonic transducers and so on.PM series can control by inside potentiometer and outside potentiometer or computer.An optional RS-232 or RS-485 is available.PM module is available as either a positive or negative supply that is ideal for OEM applications.

TYPICAL APPLICATIONS

Mass spectrometry,Photomultiplier Tubes(PMT),Microchannel plates(MCP),Proportional Counters,GM Tube, Avalanche Photo Diode (APD),Solid state detectors,Ionization Chambers,gas chromatography,Electron multiplier Detectors,Nuclear Instruments,Electrophoresis,DNA sequencing,Radiation counter,Electron Beam,Ion Beam,High voltage bias,Hipot Testing,Precision Lenses Image Intensifiers,Semicon-ductor Testing,Electrostatic discharge Testing, Provides power to the pulse power,Capacitor Discharging,Life Sciences,Medical chemical Applications,Science Laboratory Applications，Industrial Applications.

PM SELECTION TABLE

kV	mA	P(W)	MODEL	RIPPLE (mVp-p)	kV	mA	P(W)	MODEL	RIPPLE (mVp-p)	kV	mA	P(W)	MODEL	RIPPLE (mVp-p)	kV	mA	P(W)	MODEL	RIPPLE (mVp-p)
0.5	4.0	2	PM0.5*2	5	1.5	2.0	3	PM1.5*3	2	3	1.67	5	PM3*5	3	5	1.6	8	PM5*8	5
	5.0	2.5	PM0.5*2.5	5		2.7	4	PM1.5*4	2		2.0	6	PM3*6	3		2.0	10	PM5*10	5
	6.0	3	PM0.5*3	5		3.3	5	PM1.5*5	2		2.7	8	PM3*8	3	7.5	0.27	2	PM7.5*2	15
	8.0	4	PM0.5*4	5		4.0	6	PM1.5*6	2		3.3	10	PM3*10	3		0.33	2.5	PM7.5*2.5	15
	10	5	PM0.5*5	5		5.3	8	PM1.5*8	2	4	0.5	2	PM4*2	5		0.4	3	PM7.5*3	15
	12	6	PM0.5*6	5		6.7	10	PM1.5*10	2		0.63	2.5	PM4*2.5	5		0.53	4	PM7.5*4	15
	16	8	PM0.5*8	5	2	1.0	2	PM2*2	2		0.75	3	PM4*3	5		0.67	5	PM7.5*5	15
	20	10	PM0.5*10	5		1.25	2.5	PM2*2.5	2		1.0	4	PM4*4	5		0.8	6	PM7.5*6	15
1	2.0	2	PM1*2	2		1.5	3	PM2*3	2		1.25	5	PM4*5	5		1.1	8	PM7.5*8	15
	2.5	2.5	PM1*2.5	2		2.0	4	PM2*4	2		1.5	6	PM4*6	5		1.33	10	PM7.5*10	15
	3.0	3	PM1*3	2		2.5	5	PM2*5	2		2.0	8	PM4*8	5	10	0.2	2	PM10*2	30
	4.0	4	PM1*4	2		3.0	6	PM2*6	2		2.5	10	PM4*10	5		0.25	2.5	PM10*2.5	30
	5.0	5	PM1*5	2		4.0	8	PM2*8	2	5	0.4	2	PM5*2	5		0.3	3	PM10*3	30
	6.0	6	PM1*6	2		5.0	10	PM2*10	2		0.5	2.5	PM5*2.5	5		0.4	4	PM10*4	30
	8.0	8	PM1*8	2	3	0.67	2	PM3*2	3		0.6	3	PM5*3	5		0.5	5	PM10*5	30
	10	10	PM1*10	2		0.83	2.5	PM3*2.5	3		0.8	4	PM5*4	5		0.6	6	PM10*6	30
1.5	1.3	2	PM1.5*2	2		1.0	3	PM3*3	3		1.0	5	PM5*5	5		0.8	8	PM10*8	30
	1.7	2.5	PM1.5*2.5	2		1.3	4	PM3*4	3		1.2	6	PM5*6	5		1.0	10	PM10*10	30

PM SELECTION EXAMPLE

PM | 10 | * | 10 | VP | 10 | VM | 5 | LP / LCX | M1 / 24

Series Number	Maximum Output Voltage (KV)	Output Polarity	Maximum Output Voltage (KV)	Option	Option	Option	Option	Option	Shield cable	Option interface	Option Input Voltage
		P:Positive N:Negative		VP: Voltage Program	10:0 ~ +10Vdc Programming= 0 to Max. Output 9:0 ~+9Vdc Programming= 0 to Max. Output	VM: Voltage Monitor	5:0 ~ +5Vdc Monitor = 0 to Max. Output (See “VMX Option Table”)	LP: local VR Control	shield cable 1m (X option)	M1~M15（See “Inter-face conne-ctor picture”	24: +24Vdc ~ +30Vdc 12: ±12dc ~ ±18Vdc

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SPECIFICATIONS

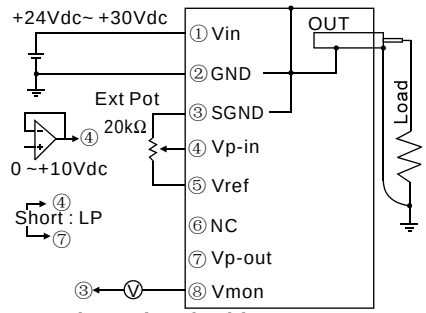
PARAMETER	DESCRIBE		
Input Voltage	+24Vdc ~ +30Vdc@700mA maximum， ±12Vdc ~ ±18Vdc.		
Output Voltage	0.5kV~10kV@10W MAX.		
Stability	≤0.001% per 8 hours(HS option:≤0.05% per 1000 hours) after 1/2hour warm-up.		
Temperature Coefficient	≤10ppm/℃.		
Ripple	See “MP SELECTION TABLE”.		
Reference Voltage	+10Vdc ±1%.		
Output Voltage Accuracy	±2%/Vp-in=+10Vdc.		
Voltage Monitor	0~+10Vdc , Accuracy:±1%.		
Voltage Local Programming	By internal potentiometer (0~ +10Vdc for 0 to maximum output) Zin=10MΩ.		
Voltage Remote Programming	By external 20kΩ potentiometer or external voltage control (0~+10Vdc, Zin=100kΩ, Accuracy: ±1%).		
Voltage Load Regulation	Load:0.001%of rated output voltage for full load change.		
Voltage Line Regulation	Line:0.001% of rated output voltage over specified input voltage.		
Cooling	Convection cooled		
Accessory: CN8ML	8 pin male connector		
Accessory: CN12ML	12 pin male connector		
Operating Temperature	0℃~50℃ .		
Storage Temperature	-40℃~+85℃ .		
Humidity	20%~85% Rh, non-condensing.		
Dimensions	See “PM Dimensions	Weight	400g

VMX Option Table (vp:0V to 9V)

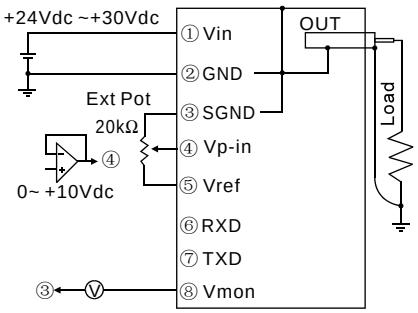
MODEL	X	Zout	MODEL	X	Zout	MODEL	X	Zout	MODEL	X	Zout
PM 0.5*	5	50kΩ	PM 1.5*	2	25kΩ	PM 3*	5	30kΩ	PM 7.5*	7.5	200kΩ
PM 1*	1	10kΩ	PM 2*	3	25kΩ	PM 5*	1	100kΩ	PM 10*	5	10kΩ

8 PIN CONNECTOR DIAGRAM

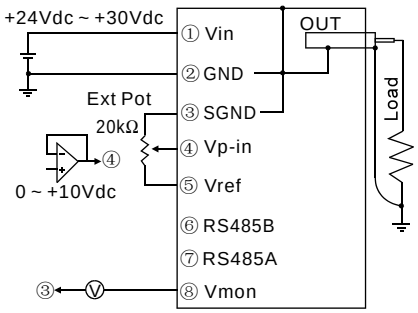
M1: 8 pin analog single power supply 01



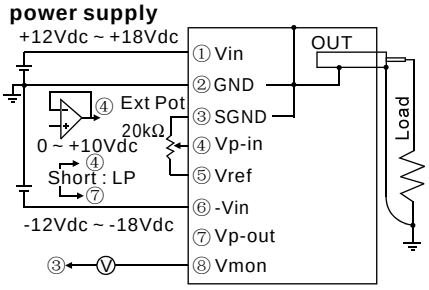
M2:8 pin Rs232 single power supply 01 Ⓓ



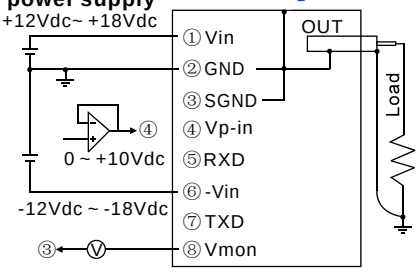
M3: 8 pin Rs485 single power supply 01 Ⓓ



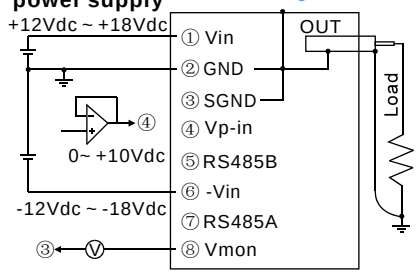
M4: 8 pin analog double power supply



M5: 8 pin Rs232 double power supply Ⓓ



M6: 8 pin Rs485 double power supply Ⓓ



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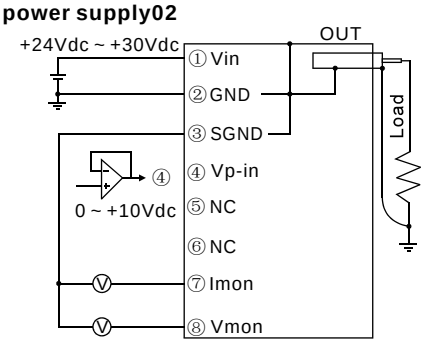
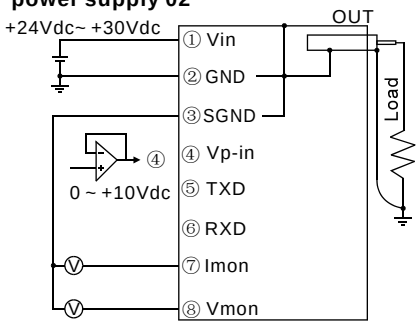
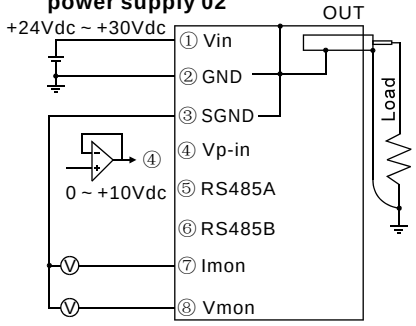
M7: 8 pin analog single power supply02



M8: 8pin Rs232 single power supply 02 D

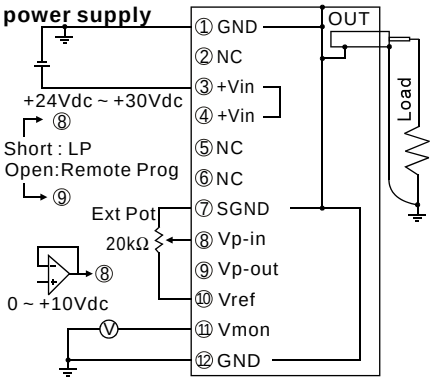


M9: 8 pin Rs485 single power supply 02 D

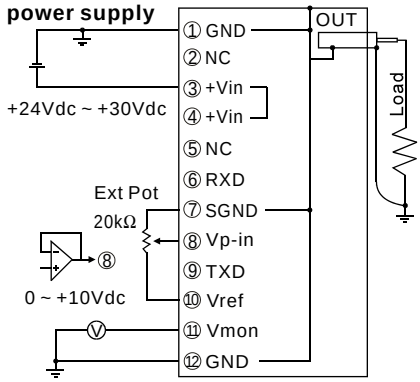


PM12 PIN CONNECTION DIAGRAM

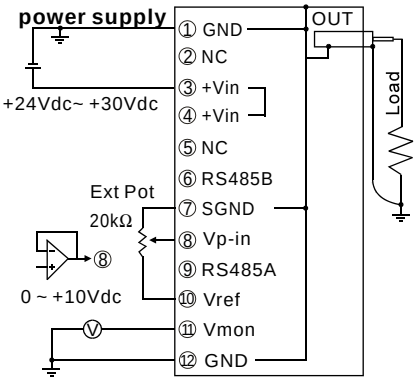
M10: 12 pin analog single power supply



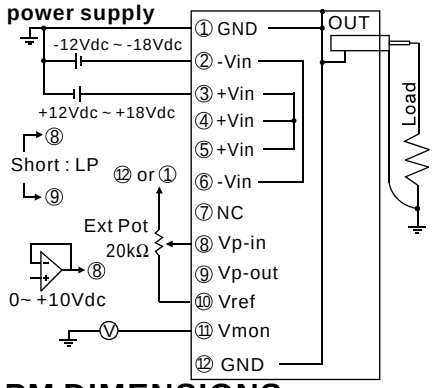
M11: 12 pin Rs232 single power supply D



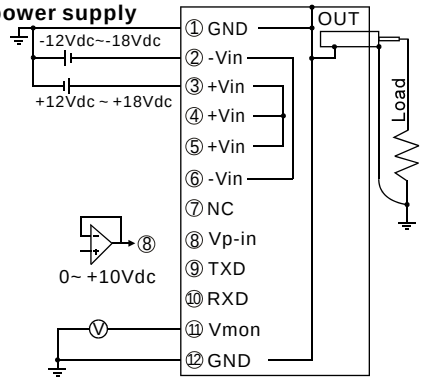
M12:12 pin Rs485 single power supply D



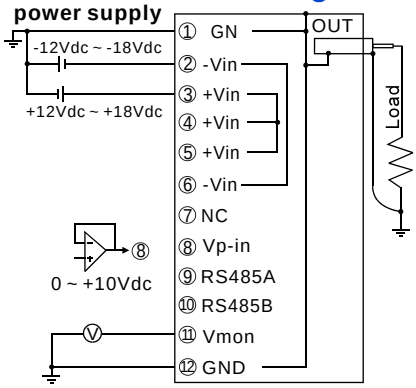
M13: 12 pin analog double power supply



M14: 12 pin Rs232 double power supply D

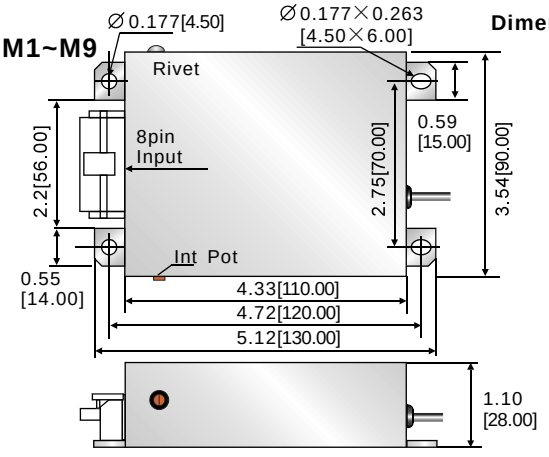


M15: 12 pin Rs485 double power supply D



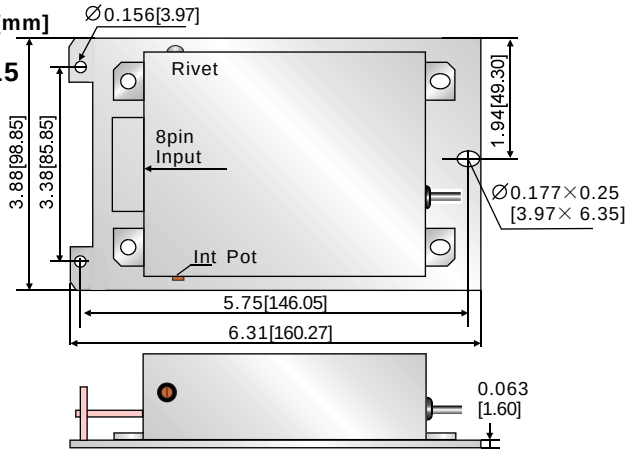
PM DIMENSIONS

M1~M9



Dimensions: inch[mm]

M10~M15



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