



(Cable connection)



(USB connection)



EAC FCC CE IP22 V



## ■ Features

- Interchangeable AC plugs (plug kit sold separately)
- Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1/ES60601-1-11, EN60601-1/EN60601-1-11
- Extremely low leakage current
- No load power consumption < 0.3W
- **Energy efficiency Level** V
- -20~+70°C wide range working temperature
- Class II power (no earth pin)
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- 3 years warranty

## ■ Applications

- Blood glucose meter
- Blood pressure meter
- Nebulizer
- Inhaler
- Portable medical device
- Sleep apnea devices

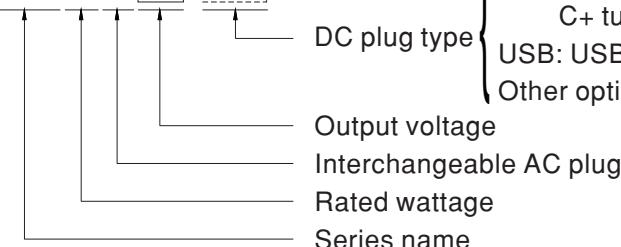
## ■ Description

GEM06I is a highly reliable, 6W wall-mounted style single-output green medical adaptor series, which is compact and convenient for carry. This product is equipped with an interchangeable AC plug (4 types, including European type, USA type, U.K. type and Australian type) that makes it very suitable for businessmen to use in the major countries around the globe. GEM06I is a class II power unit (no FG), accepting the input range from 80VAC to 264VAC that it can satisfy the demands for various types of medical electrical devices. The circuitry design meets the international medical standards (2\*MOPP), having an ultra low leakage current (<55μA), fitting the medical devices in direct electrical contact with the patients.

With the working efficiency up to 80% and the extremely low no-load power consumption below 0.3W, GEM06I is compliant with the latest USA energy regulation EISA 2007/DoE(Level V) and EU ErP. The supreme feature allows the adaptor to save the energy when it is under either the operating mode or the standby mode. The entire series is approved for international safety regulations; moreover, it adopts the 94V-0 flame retardant plastic case that it can effectively prevent users from electric hazard.

## ■ Model Encoding

GEM06 I 05 -P1J



P1J: Plug for standard model, 2.1φ x 5.5φ x 11mm,  
C+ tuning fork type  
USB: USB(type A) for 5V model only  
Other option available by customer requested (See page 5~6)

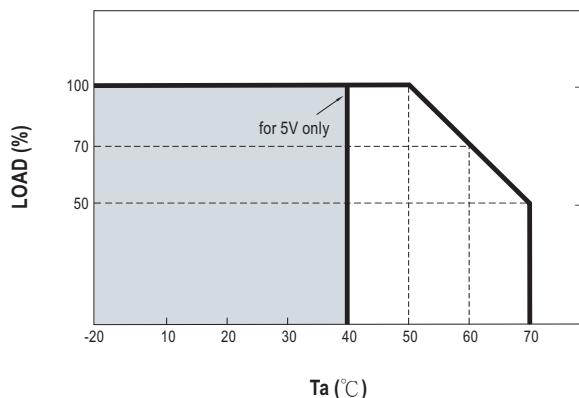
## Interchangeable AC plug Specifically for GEM06I/12I/18I/30I/40I/60I

TYPE					
	Australian type	U.K type	European type	US type	Mix four type
ORDER NO.	AC plug-AU2	AC plug-UK2	AC plug-EU2	AC plug-US2	AC plug-MIX2

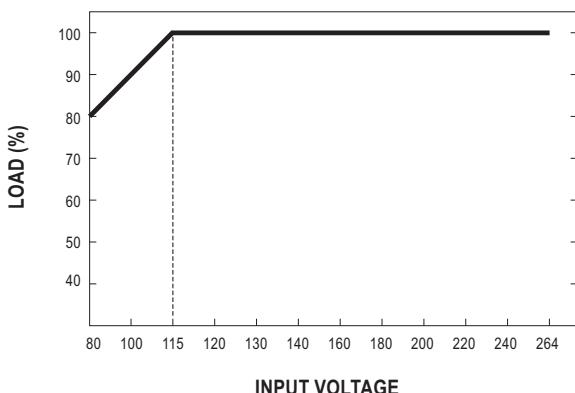
**SPECIFICATION**

ORDER NO.	GEM06I05-□ □=P1J USB	GEM06I06-P1J	GEM06I07-P1J	GEM06I09-P1J	GEM06I12-P1J	GEM06I15-P1J	GEM06I18-P1J	GEM06I24-P1J		
OUTPUT	<b>SAFETY MODEL NO.</b>	GEM06I05	GEM06I06	GEM06I07	GEM06I09	GEM06I12	GEM06I15	GEM06I18	GEM06I24	
	<b>DC VOLTAGE</b> Note.2	5V	6V	7.5V	9V	12V	15V	18V	24V	
	<b>RATED CURRENT</b>	1.2A	1A	0.8A	0.66A	0.5A	0.4A	0.33A	0.25A	
	<b>CURRENT RANGE</b>	0 ~ 1.2A	0 ~ 1A	0 ~ 0.8A	0 ~ 0.66A	0 ~ 0.5A	0 ~ 0.4A	0 ~ 0.33A	0 ~ 0.25A	
	<b>RATED POWER (max.)</b>	6W	6W	6W	6W	6W	6W	6W	6W	
	<b>RIPPLE &amp; NOISE (max.)</b> Note.3	50mVp-p	50mVp-p	80mVp-p	80mVp-p	100mVp-p	120mVp-p	150mVp-p	180mVp-p	
	<b>VOLTAGE TOLERANCE</b> Note.4	± 5.0%	± 5.0%	± 5.0%	± 5.0%	± 5.0%	± 5.0%	± 5.0%	± 4.0%	
	<b>LINE REGULATION</b> Note.5	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	
INPUT	<b>LOAD REGULATION</b> Note.6	± 5.0%	± 5.0%	± 5.0%	± 5.0%	± 3.0%	± 3.0%	± 3.0%	± 2.0%	
	<b>SETUP, RISE, HOLD UP TIME</b>	1000ms, 50ms, 12ms at full load								
	<b>VOLTAGE RANGE</b> Note.7	80 ~ 264VAC	113 ~ 370VDC							
	<b>FREQUENCY RANGE</b>	47 ~ 63Hz								
	<b>EFFICIENCY (Typ.)</b>	70%	74%	74%	76%	76%	79%	79%	80%	
	<b>AC CURRENT</b>	0.18A / 100VAC								
	<b>INRUSH CURRENT (max.)</b>	Cold start 15A/ 115VAC 30A/ 230VAC								
	<b>LEAKAGE CURRENT(max.)</b>	Touch current < 55µA/264VAC								
PROTECTION	<b>OVERLOAD</b>	>105% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	<b>OVER VOLTAGE</b>	110 ~ 140% rated output power Protection type : Clamp by zener diode								
ENVIRONMENT	<b>WORKING TEMP.</b>	-20 ~ +70°C (Refer to "Derating Curve")								
	<b>WORKING HUMIDITY</b>	20% ~ 90% RH non-condensing								
	<b>STORAGE TEMP., HUMIDITY</b>	-20 ~ +85°C, 10 ~ 95% RH non-condensing								
	<b>TEMP. COEFFICIENT</b>	± 0.04% / °C (0 ~ 50°C)								
	<b>VIBRATION</b>	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
SAFETY & EMC (Note. 8)	<b>SAFETY STANDARDS</b>	TUV EN60601-1/EN60601-1-11,ANSI/ AAMI ES60601-1/ES60601-1-11(3.1 version), CAN/CSA-C22 3 <sup>rd</sup> edition, EAC TP TC 004 approved GEM06I05-USB without EN60601-1-11 , ANSI/ AAMI ES60601-1-11								
	<b>ISOLATION LEVEL</b>	Primary - Secondary: 2 x MOPP								
	<b>WITHSTAND VOLTAGE</b>	I/P-O/P:5656VDC								
	<b>ISOLATION RESISTANCE</b>	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH								
	<b>EMC EMISSION</b>	<b>Parameter</b>	<b>Standard</b>	<b>Test Level / Note</b>						
		Conducted emission	EN55011 (CISPR11), FCC PART 15 and 18/CISPR22	Class B						
		Radiated emission	EN55011 (CISPR11), FCC PART 15 and 18/CISPR22	Class B						
		Harmonic current	EN61000-3-2	Class A						
	<b>EMC IMMUNITY</b>	Voltage flicker	EN61000-3-3	-----						
		EN55024 , EN60601-1-2, EN61204-3								
		<b>Parameter</b>	<b>Standard</b>	<b>Test Level / Note</b>						
		ESD	EN61000-4-2	Level 4, 15KV air ; Level 4, 8KV contact						
		RF field susceptibility	EN61000-4-3	Level 3, 10V/m(80MHz-2.7GHz) Table 9, 9-28V/m(385MHz-5.78GHz)						
		EFT bursts	EN61000-4-4	Level 3, 2KV						
		Surge susceptibility	EN61000-4-5	Level 3, 1KV/Line-Line						
		Conducted susceptibility	EN61000-4-6	Level 2, 3V						
OTHERS	<b>CONNECTOR</b>	Magnetic field immunity	EN61000-4-8	Level 4, 30A/m						
		Voltage dip, interruption	EN61000-4-11	>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods						
		LIFE	3 years (12 hrs per day for 5V output)							
CONNECTOR	<b>PLUG</b>	MTBF	500Khrs min. MIL-HDBK-217F(25°C)							
		DIMENSION	73.9*39*48.5mm (L*W*H)							
		PACKING	101g ; 72pcs / 8.3kg / CARTON for cable connection; 72g ; 150pcs / 11.8kg / CARTON for USB connection							
NOTE	<b>CABLE</b>	PLUG	See page 5~6 ; other type available by customer requested							
		CABLE	See page 5~6 ; other type available by customer requested							
1.All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient. 2.DC voltage: The output voltage set at point measure by plug terminal & 50% load. 3.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1µF & 47µF capacitor. 4.Tolerance: includes set up tolerance, line regulation, load regulation. 5.Line regulation is measured from low line to high line at rated load. 6.Load regulation is measured from 10% to 100% rated load. 7.Derating may be needed under low input voltage. Please check the derating curve for more details. 8.The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> )										

## ■ Derating Curve

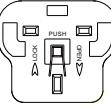
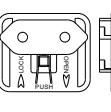
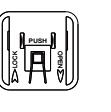


## ■ Static Characteristics

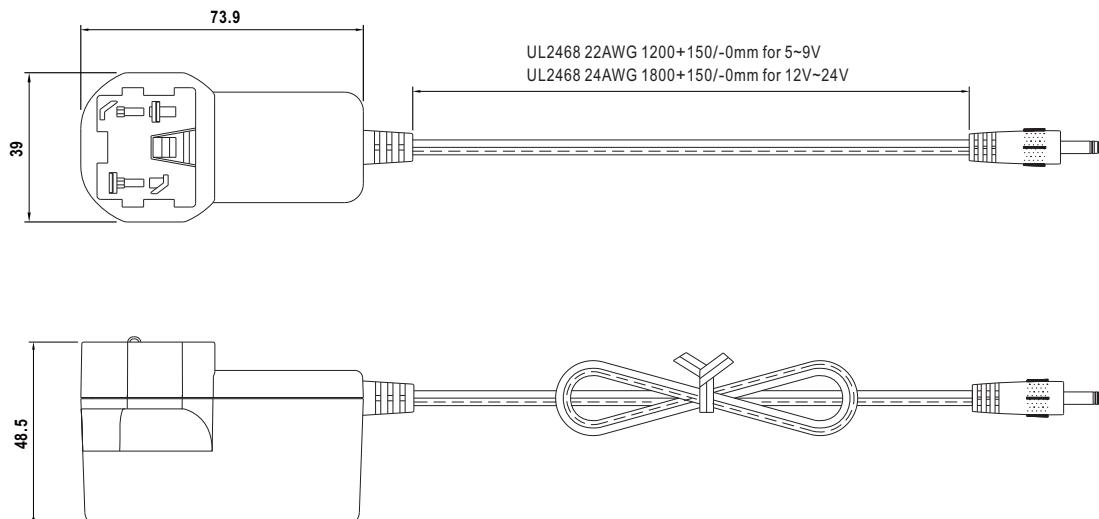


## ■ Mechanical Specification

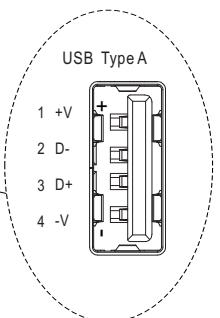
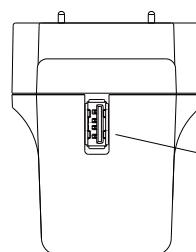
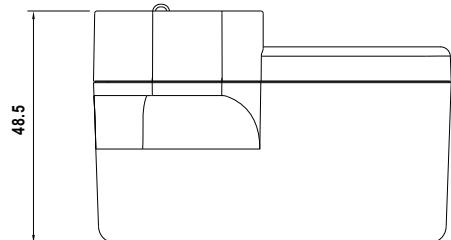
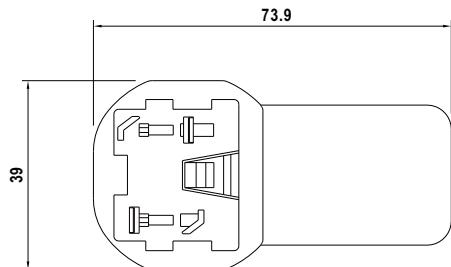
Unit:mm

TYPE	Australian type	U.K type	European type	US type
				

※Cable connection



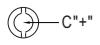
※USB connection



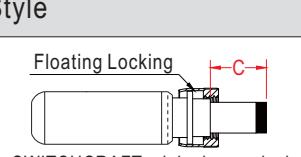
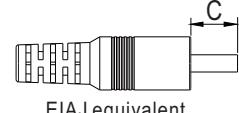
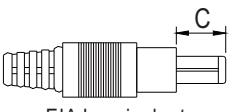
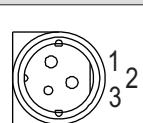
### ■ DC output plug

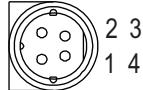
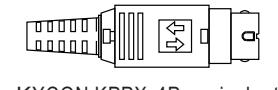
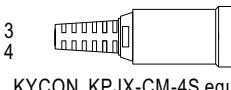
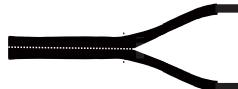
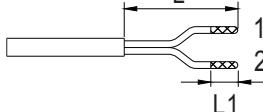
Standard plug: P1J

Unit:mm

P1J	Pin Assignment
 	 Outside   Inside

## ◎ Optional DC plug:

Tuning Fork Style	Type No.	A	B	C
		OD	ID	L
 	P1I	5.5	2.1	9.5
	P1L	5.5	2.5	9.5
	P1M	5.5	2.5	11.0
	P1IR	5.5	2.1	9.5
	P1JR	5.5	2.1	11.0
	P1LR	5.5	2.5	9.5
	P1MR	5.5	2.5	11.0
	P1R	5.5	2.1	9.5
Barrel Style	Type No.	A	B	C
		OD	ID	L
 	P2I	5.5	2.1	9.5
	P2J	5.5	2.1	11.0
	P2L	5.5	2.5	9.5
	P2M	5.5	2.5	11.0
	P2IR	5.5	2.1	9.5
	P2JR	5.5	2.1	11.0
	P2LR	5.5	2.5	9.5
	P2MR	5.5	2.5	11.0
Lock Style	Type No.	A	B	C
		OD	ID	L
   <i>SWITCHCRAFT original or equivalent</i>	P2S(S761K)	5.53	2.03	12.06
	P2K(761K)	5.53	2.54	12.06
	P2C(S760K)	5.53	2.03	9.52
	P2D(760K)	5.53	2.54	9.52
	P2R	5.53	2.54	9.52
	P2L	5.53	2.54	12.06
	P2M	5.53	2.54	12.06
	P2J	5.53	2.54	12.06
Min. Pin Style	Type No.	A	B	C
		OD	ID	L
  	P3A	2.35	0.7	11.0
	P3B	4.0	1.7	11.0
	P3C	4.75	1.7	11.0
	P3R	4.75	1.7	11.0
	P3L	4.75	1.7	11.0
	P3M	4.75	1.7	11.0
	P3J	4.75	1.7	11.0
	P3K	4.75	1.7	11.0
Center Pin Style	Type No.	A	B	C
		OD	ID	Center Pin
  	P4A	5.5	3.4	11.0
	P4B	6.5	4.4	11.0
	P4C	7.4	5.1	11.0
	P4R	7.4	5.1	11.0
	P4L	7.4	5.1	11.0
	P4M	7.4	5.1	11.0
	P4J	7.4	5.1	11.0
	P4K	7.4	5.1	11.0
Min. DIN 3 Pin with Lock (male)	Type No.	Pin Assignment		
		PIN No.	Output	
  <i>KYCON KPPX-3P equivalent</i>	R6B	1	+Vo	
		2	-Vo	
		3	+Vo	
	R6B	4	GND	
		5	GND	
		6	GND	
		7	GND	
		8	GND	

Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment	
		PIN No.	Output
   KYCON KPPX-4P equivalent	R7B	1	+Vo
		2	-Vo
		3	-Vo
		4	+Vo
Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment	
		PIN No.	Output
   KYCON KPJX-CM-4S equivalent	R7BF	1	+Vo
		2	-Vo
		3	-Vo
		4	+Vo
Stripped and tinned leads	Type No.	Pin Assignment	
		PIN No.	Output
  Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>10</u> mm)	by customer	1 (Ribbed)	+Vo
		2 (Letter)	-Vo

## ■ Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>