



■ Features

- Interchangeable AC plugs (plug kit sold sperately)
- 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 < 0.1W
- **Energy efficiency Level VI**
- -25~+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

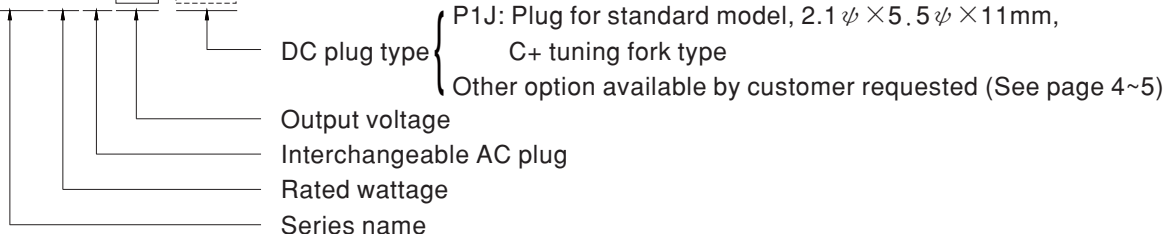
■ Description

GEM40I is a highly reliable, 40W 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. GEM40I 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 (<100μA), fitting the medical devices in direct electrical contact with the patients.

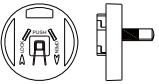
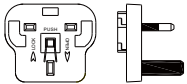
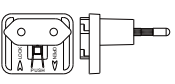
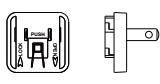
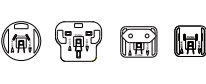
With the working efficiency up to 90.5% and the extremely low no-load power consumption below 0.1W, GEM40I is compliant with the latest USA energy regulation EISA 2007/DoE (Level VI) and EU ErP. The supreme feature allows the adaptor to save the energy when it is under either the operating mode or the 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

GEM40 I 05 - P1J



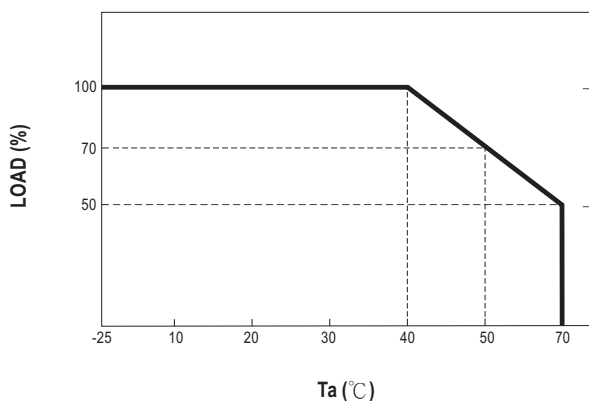
Interchangeable AC plug Specifically for GEM12I/18I/30I/40I

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

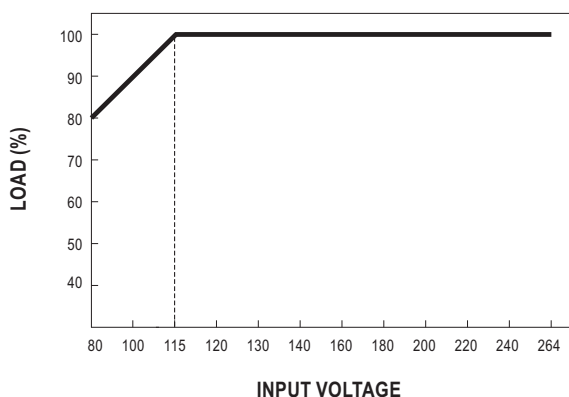
SPECIFICATION

ORDER NO.		GEM40I05-P1J	GEM40I09-P1J	GEM40I12-P1J	GEM40I15-P1J	GEM40I18-P1J	GEM40I24-P1J	GEM40I48-P1J	
OUTPUT	SAFETY MODEL NO.	GEM40I05	GEM40I09	GEM40I12	GEM40I15	GEM40I18	GEM40I24	GEM40I48	
	DC VOLTAGE Note.2	5V	9V	12V	15V	18V	24V	48V	
	RATED CURRENT	5A	4A	3.33A	2.66A	2.22A	1.66A	0.83A	
	CURRENT RANGE	0 ~ 5A	0 ~ 4A	0 ~ 3.33A	0 ~ 2.66A	0 ~ 2.22A	0 ~ 1.66A	0 ~ 0.83A	
	RATED POWER (max.)	25W	36W	40W	40W	40W	40W	40W	
	RIPPLE & NOISE (max.) Note.3	100mVp-p	100mVp-p	100mVp-p	120mVp-p	120mVp-p	120mVp-p	200mVp-p	
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%	
	LINE REGULATION Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	LOAD REGULATION Note.6	±5.0%	±5.0%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%	
SETUP, RISE, HOLD UP TIME	500ms, 30ms, 16ms/230VAC 500ms, 30ms, 16ms/115VAC at full load								
INPUT	VOLTAGE RANGE Note.7	80 ~ 264VAC 113 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz							
	EFFICIENCY (Typ.)	84%	87%	88%	88%	88%	89%	90.5%	
	AC CURRENT	1A / 115VAC 0.6A / 230VAC							
	INRUSH CURRENT (max.)	Cold start 30A / 115VAC 65A / 230VAC							
LEAKAGE CURRENT(max.)		Touch current < 100µA/264VAC							
PROTECTION	OVERLOAD	105 ~ 160% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	110 ~ 140% rated output voltage Protection type : Clamp by zener diode, output short							
ENVIRONMENT	WORKING TEMP.	-25 ~ +70℃ (Refer to "Derating Curve")							
	WORKING HUMIDITY	20% ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-25 ~ +85℃, 10 ~ 95% RH non-condensing							
	TEMP. COEFFICIENT	±0.03% / °C (0 ~ 40℃)							
VIBRATION		10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes							
SAFETY & EMC (Note. 8)	SAFETY STANDARDS	TUV EN60601-1/EN60601-1-11,ANSI/ AAMI ES60601-1/ES60601-1-11(3.1 version), CAN/CSA-C22 3 rd edition approved							
	ISOLATION LEVEL	Primary - Secondary: 2 x MOPP							
	WITHSTAND VOLTAGE	I/P-O/P:5656VDC							
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH							
	EMC EMISSION	Parameter	Standard			Test Level / Note			
		Conducted emission	EN55011 (CISPR11),FCC PART 18			Class B			
		Radiated emission	EN55011 (CISPR11),FCC PART 18			Class B			
		Harmonic current	EN61000-3-2			Class A			
		Voltage flicker	EN61000-3-3			-----			
	EMC IMMUNITY	EN55024 , EN60601-1-2, EN61204-3							
		Parameter	Standard			Test Level / Note			
		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			
		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				
OTHERS	LIFE	3 years : 100% load 40℃, 12hours / day							
	MTBF	400Khrs min. MIL-HDBK-217F(25℃)							
	DIMENSION	75.5*39.1*56.2mm (L*W*H)							
	PACKING	200g ; 60pcs / 13kg / CARTON							
CONNECTOR	PLUG	See page 4-5 ; other type available by customer requested							
	CABLE	See page 4-5 ; other type available by customer requested							
NOTE		1.All parameters are specified at 230VAC input, rated load, 25℃ 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 http://www.meanwell.com)							

■ Derating Curve

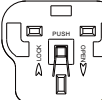
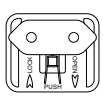
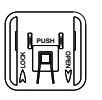


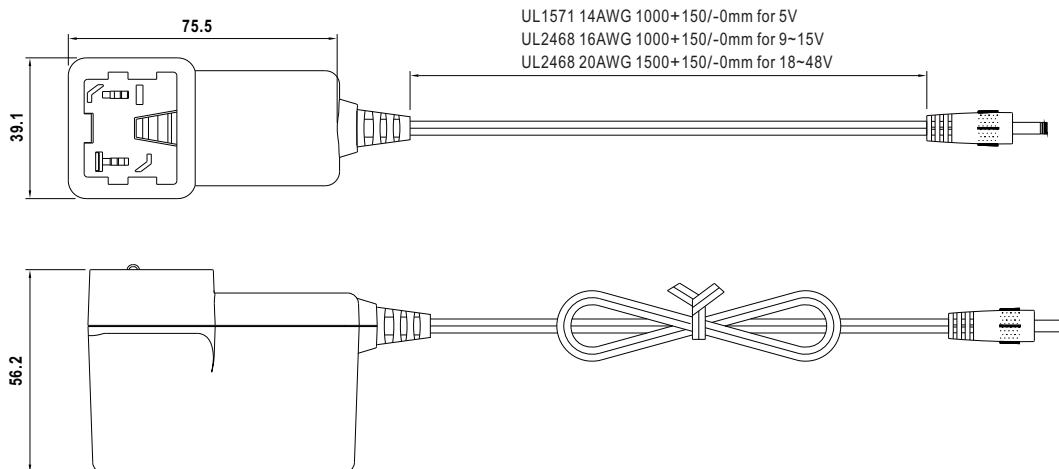
■ Static Characteristics



■ Mechanical Specification

Unit:mm

TYPE				
	Australian type	U.K type	European type	US type



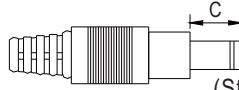
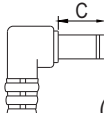
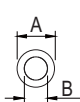
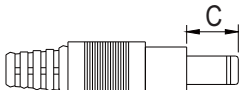
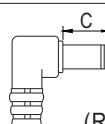
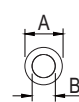
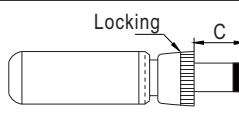
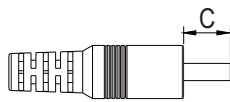
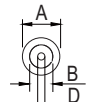
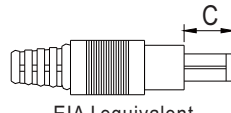
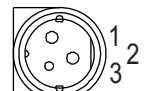
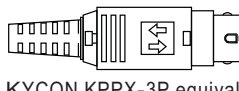
■ Plug Assignment

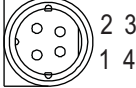
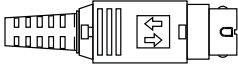
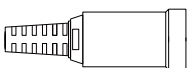
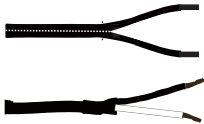
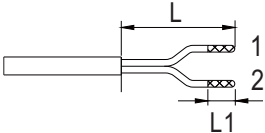
Standard plug: P1J

Unit:mm

P1J	Pin Assignment
	
	Outside  Inside

© Optional DC plug:

Tuning Fork Style		Type No.	A	B	C	
			OD	ID	L	
 	 (Straight)	P1I	5.5	2.1	9.5	
		P1L	5.5	2.5	9.5	
		P1M	5.5	2.5	11.0	
	 (Right-angled)	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	
Barrel Style		Type No.	A	B	C	
			OD	ID	L	
 	 (Straight)	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	
	 (Right-angled)	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	
  SWITCHCRAFT original or equivalent	 Locking	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	
Min. Pin Style		Type No.	A	B	C	
			OD	ID	L	
  EIAJ equivalent	 EIAJ equivalent	P3A	2.35	0.7	11.0	
		P3B	4.0	1.7	11.0	
		P3C	4.75	1.7	11.0	
Center Pin Style		Type No.	A	B	C	D
			OD	ID	L	Center Pin
  EIAJ equivalent	 EIAJ equivalent	P4A	5.5	3.4	11.0	1.0
		P4B	6.5	4.4	11.0	1.4
		P4C	7.4	5.1	11.0	0.6
Min. DIN 3 Pin with Lock (male)		Type No.	Pin Assignment			
			PIN No.	Output		
  KYCON KPPX-3P equivalent	 KYCON KPPX-3P equivalent	R6B	1	+Vo		
		2	-Vo			
		3	+Vo			

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 or White)	+Vo
		2 (Letter or Black)	-Vo

■ **Installation Manual**

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