

CB EAC CE UK CA

BS EN/EN60601-1-1-11 IEC60601-1-1-11 TPTC004



## ■ Features

- 2 pole EURO plug, Class II power unit
- Medical safety approved (2 x MOPP) according to BS EN/EN60601-1-1-11
- Extremely low leakage current
- No load power consumption<0.1W
- Energy efficiency Level VI and meet CoC version 5 ( except 5~9V for Level V )
- -25~+60°C wide range working temperature
- Protections: Short circuit / Overload / Over voltage
- LED indicator for power on
- Various DC plug quick adapter accessory available  
(Plug kit sold separately, please refer to : [https://www.meanwell.com/upload/pdf/DC\\_plug.pdf](https://www.meanwell.com/upload/pdf/DC_plug.pdf))
- 3 years warranty

## ■ Applications

- Blood glucose meter
- Blood pressure meter
- Nebulizer
- Inhaler
- Portable medical device

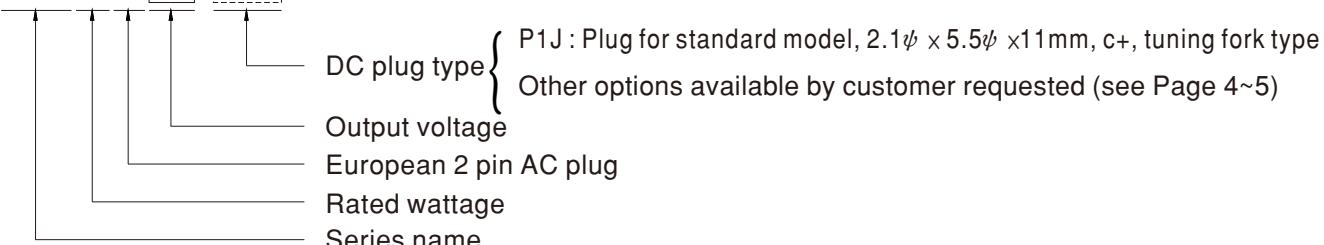
## ■ Description

GSM18E is a highly reliable, 18W wall-mounted style single-output green medical adaptor series. This product is equipped with a 2-pin (no FG) standard European power plug, adopting the input range from 80VAC to 264VAC. The entire series supplies different output voltages between 5VDC and 48VDC that can satisfy the demands for various kinds of miniature medical devices. The circuitry design meets the international medical standards (2 x MOPP), having an ultra low leakage current (<50 $\mu$ A), fitting the medical devices in direct electrical contact with the patients.

With the efficiency up to 88% and the extreme low no-load power consumption below 0.1W, GSM18E is compliant with EU ErP and meet Code of Conduct(CoC) Version 5; the supreme feature allows the adaptor to save the energy when it is either under the operating mode or the standby mode. The entire series utilizes the 94V-0 flame retardant plastic case, providing the double insulation that effectively prevents electrical shock. GSM18E is approved with the international medical safety certificates.

## ■ Model Encoding

GSM18E [05] -P1J





18W AC-DC Reliable Green Medical Adaptor

GSM18E series

## SPECIFICATION

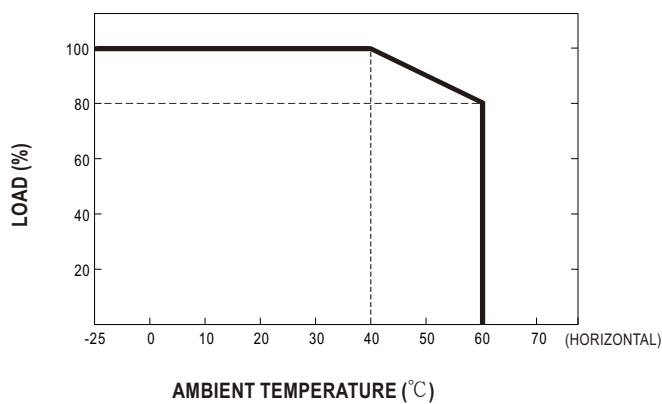
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OUTPUT	SAFETY MODEL NO.	GSM18E05	GSM18E07	GSM18E09	GSM18E12	GSM18E15	GSM18E18	GSM18E24						
	DC VOLTAGE Note.2	5V	7.5V	9V	12V	15V	18V	24V						
	RATED CURRENT	3A	2A	2A	1.5A	1.2A	1A	0.75A						
	CURRENT RANGE	0 ~ 3A	0 ~ 2A	0 ~ 2A	0 ~ 1.5A	0 ~ 1.2A	0 ~ 1A	0 ~ 0.75A						
	RATED POWER (max.)	15W	15W	18W	18W	18W	18W	18W						
	ripple & noise (max.) Note.3	60mVp-p	80mVp-p	80mVp-p	120mVp-p	120mVp-p	150mVp-p	180mVp-p						
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%						
	LINE REGULATION Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%						
	LOAD REGULATION	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%						
INPUT	SETUP, RISE TIME Note.6	500ms, 30ms / 230VAC		1000ms, 30ms / 115VAC at full load										
	HOLD UP TIME (Typ.)	16ms / 230VAC		16ms / 115VAC at full load										
PROTECTION	VOLTAGE RANGE Note.7	80 ~ 264VAC 113 ~ 370VDC												
	FREQUENCY RANGE	47 ~ 63Hz												
	EFFICIENCY (Typ.)	80%	83%	84%	85%	85.5%	86%	87%						
	AC CURRENT (Typ.)	0.5A / 115VAC	0.25A / 230VAC											
	INRUSH CURRENT (Typ.)	55A / 230VAC	30A / 115VAC											
ENVIRONMENT	LEAKAGE CURRENT(max.)	Touch current < 50μA/264VAC												
	OVERLOAD	105 ~ 170% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed												
	OVER VOLTAGE	5.25 ~ 7.5V	7.88 ~ 10.13V	9.45 ~ 12.6V	12.6 ~ 17.2V	15.75 ~ 20.25V	18.9 ~ 24.3V	25.2 ~ 32.4V						
		Protection type : Shut down o/p voltage, re-power on to recover												
SAFETY & EMC (Note. 8)	WORKING TEMP.	-25 ~ +60°C (Refer to "Derating Curve")												
	WORKING HUMIDITY	20% ~ 90% RH non-condensing												
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing												
	TEMP. COEFFICIENT	±0.03% / °C (0~40°C)												
SAFETY & EMC (Note. 8)	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes												
	SAFETY STANDARDS	TUV BS EN/EN60601-1 / BS EN/EN60601-1-11, EAC TP TC 004 approved												
	ISOLATION LEVEL	Primary-Secondary: 2xMOPP												
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC												
SAFETY & EMC (Note. 8)	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH												
	EMC EMISSION	Parameter	Standard			Test Level / Note								
		Conducted emission	BS EN/EN55011 (CISPR11)			Class B								
		Radiated emission	BS EN/EN55011 (CISPR11)			Class B								
SAFETY & EMC (Note. 8)	EMC IMMUNITY	Harmonic current	BS EN/EN61000-3-2			Class A								
		Voltage flicker	BS EN/EN61000-3-3			----								
		BS EN/EN60601-1-2, BS EN/EN61204-3												
		Parameter	Standard			Test Level / Note								
SAFETY & EMC (Note. 8)	EMC IMMUNITY	ESD	BS EN/EN61000-4-2			Level 4, 15KV air ; Level 4, 8KV contact								
		RF field susceptibility	BS EN/EN61000-4-3			Level 3, 10V/m( 80MHz~2.7GHz ) Table 9, 9~28V/m( 385MHz~5.78GHz )								
		EFT bursts	BS EN/EN61000-4-4			Level 3, 2KV								
		Surge susceptibility	BS EN/EN61000-4-5			Level 3, 1KV/Line-Line								
SAFETY & EMC (Note. 8)	EMC IMMUNITY	Conducted susceptibility	BS EN/EN61000-4-6			Level 3, 10V								
		Magnetic field immunity	BS EN/EN61000-4-8			Level 4, 30A/m								
		Voltage dip, interruption	BS EN/EN61000-4-11			100% dip 1 periods, 30% dip 25 periods, 100% interruptions 250 periods								
OTHERS	MTBF	796.7K hrs min. MIL-HDBK-217F(25°C)												
	DIMENSION	79*54*33mm (L*W*H)												
CONNECTOR	PACKING	200g ; 60pcs / 13Kg / CARTON												
	PLUG	See page 4~5 ; Other type available by customer requested												
NOTE	CABLE	See page 4~5 ; 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. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time. 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-confirmed 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> )												
		※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>												



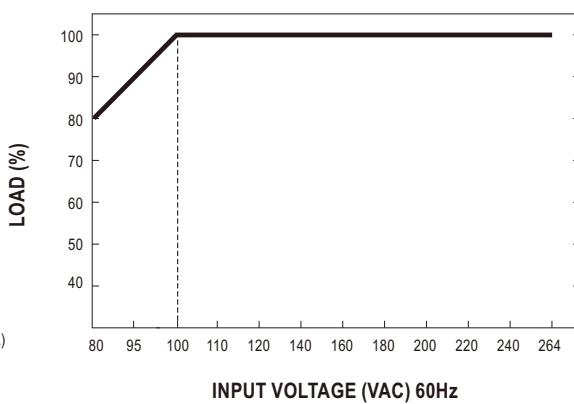
18WAC-DC Reliable Green Medical Adaptor

**GSM18E** series

■ Derating Curve

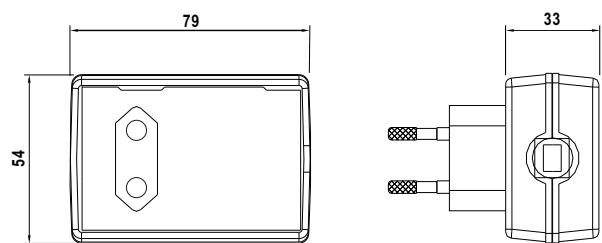
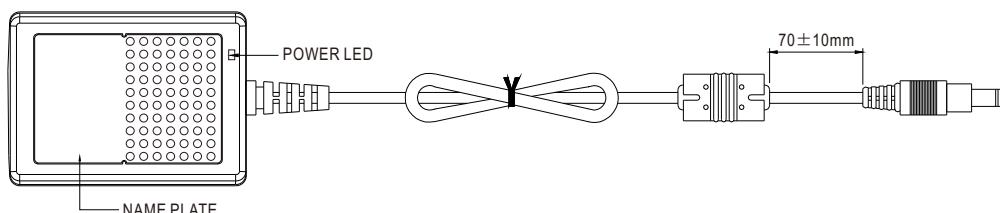
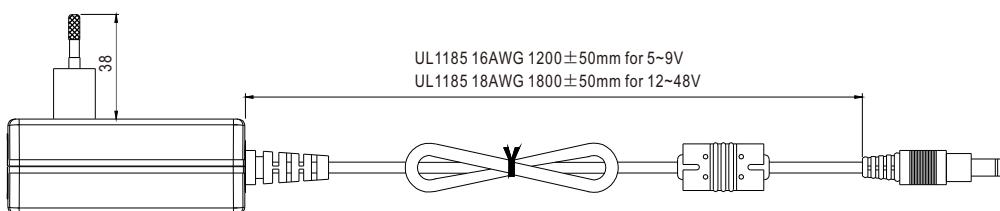


■ Static Characteristics



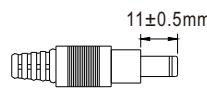
■ Mechanical Specification

Unit:mm



**■ DC output plug**

- ◎ Standard plug: P1J

P1J	Pin Assignment
	
5.5 2.1  	Outside  Inside

- ◎ DC plug changeable through:

(1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)

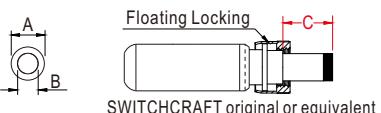
(2) Quick adapter accessory (sold separately without MOQ)

Please refer to below table and online selection guide : [https://www.meanwell.com/upload/pdf/DC\\_plug.pdf](https://www.meanwell.com/upload/pdf/DC_plug.pdf)

Example quick adapter accessory:



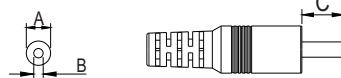
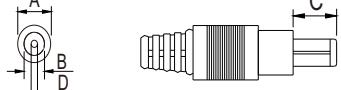
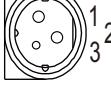
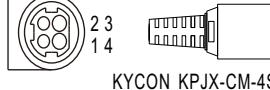
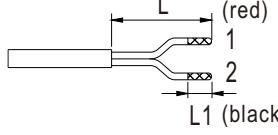
- ◎ Optional DC plug: (Available in customized cable or quick adapter)

Tuning Fork Style	Type No.	A	B	C	Quick Adapter Accessory
		OD	ID	L	
 	P1I	5.5	2.1	9.5	Available (Current rating: 7.5A max.)
	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	
Barrel Style	Type No.	A	B	C	None
		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	
Lock Style	Type No.	A	B	C	None
		OD	ID	L	
 	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	
 SWITCHCRAFT original or equivalent					



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Min. Pin Style	Type No.	A	B	C	Quick Adapter Accessory	
		OD	ID	L		
  EIAJ equivalent	P3A	2.35	0.7	11.0	Available (Current rating: 5A max.)	
	P3B	4.0	1.7	11.0		
	P3C	4.75	1.7	11.0		
  EIAJ equivalent	Type No.	A	B	C	Available (Current rating: 7.5A max.)	
	P4A	OD	ID	L		
		5.5	3.4	11.0		
  KYCON KPPX-3P equivalent	Type No.	Pin Assignment			Available (Current rating: 7.5A max.)	
	R6B	PIN No.	Output			
		1	+Vo			
  KYCON KPPX-4P equivalent	Type No.	Pin Assignment			Available (Current rating: 7.5A max.)	
	R7B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
  KYCON KPJX-CM-4S equivalent	Type No.	Pin Assignment			None	
	R7BF	PIN No.	Output			
		1	+Vo			
		2	-Vo			
 	Type No.	Pin Assignment			Available (Current rating: 7.5A max.)	
	R1B	PIN No.	Output			
		1	-Vo			
		2	-Vo			
		3	+Vo			
  Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>5</u> mm)	Type No.	Pin Assignment			None	
	by customer	PIN No.	Output			
		1	+Vo			
		2	-Vo			

### ■ Installation Manual

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