



18W AC-DC Reliable Green Medical Adaptor

**GSM18E** series



## ■ Features

- 2 pole EURO plug , Class II power unit
- Medical safety approved (2 × MOPP) according to 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 sperately, 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

## ■ GTIN CODE

MW Search : <https://www.meanwell.com/serviceGTIN.aspx>

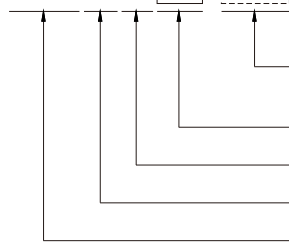
## ■ Description

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 × 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**



- DC plug type { P1J : Plug for standard model, 2.1 $\psi$  × 5.5 $\psi$  × 11 mm, c+, tuning fork type  
 Other options available by customer requested (see Page 4~5)
- Output voltage
- European 2 pin AC plug
- Rated wattage
- Series name



## 18W AC-DC Reliable Green Medical Adaptor

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## SPECIFICATION

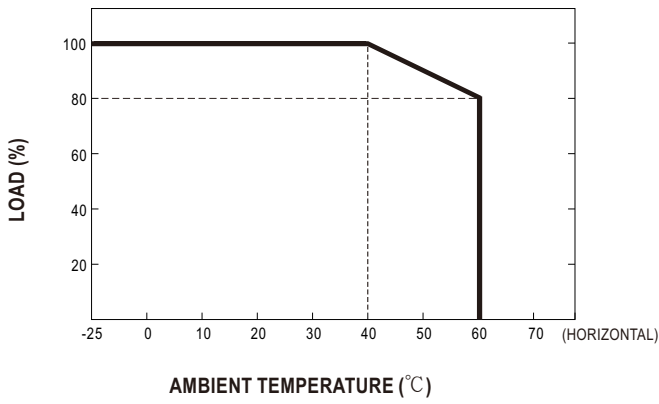
ORDER NO.	GSM18E05-P1J	GSM18E07-P1J	GSM18E09-P1J	GSM18E12-P1J	GSM18E15-P1J	GSM18E18-P1J	GSM18E24-P1J	GSM18E48-P1J			
OUTPUT	SAFETY MODEL NO.	GSM18E05	GSM18E07	GSM18E09	GSM18E12	GSM18E15	GSM18E18	GSM18E24	GSM18E48		
	DC VOLTAGE <b>Note.2</b>	5V	7.5V	9V	12V	15V	18V	24V	48V		
	RATED CURRENT	3A	2A	2A	1.5A	1.2A	1A	0.75A	0.375A		
	CURRENT RANGE	0 ~ 3A	0 ~ 2A	0 ~ 2A	0 ~ 1.5A	0 ~ 1.2A	0 ~ 1A	0 ~ 0.75A	0 ~ 0.375A		
	RATED POWER (max.)	15W	15W	18W	18W	18W	18W	18W	18W		
	RIPPLE & NOISE (max.) <b>Note.3</b>	60mVp-p	80mVp-p	80mVp-p	120mVp-p	120mVp-p	150mVp-p	180mVp-p	240mVp-p		
	VOLTAGE TOLERANCE <b>Note.4</b>	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%		
	LINE REGULATION <b>Note.5</b>	±1.0%	±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%	±2.0%		
	SETUP, RISE TIME <b>Note.6</b>	500ms, 30ms / 230VAC    100ms, 30ms / 115VAC at full load									
HOLD UP TIME (Typ.)	16ms / 230VAC    16ms / 115VAC at full load										
INPUT	VOLTAGE RANGE <b>Note.7</b>	80 ~ 264VAC    113 ~ 370VDC									
	FREQUENCY RANGE	47 ~ 63Hz									
	EFFICIENCY (Typ.)	80%	83%	84%	85%	85.5%	86%	87%	88%		
	AC CURRENT (Typ.)	0.5A / 115VAC		0.25A / 230VAC							
	INRUSH CURRENT (Typ.)	55A / 230VAC		30A / 115VAC							
	LEAKAGE CURRENT(max.)	Touch current < 50 $\mu$ A/264VAC									
PROTECTION	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	50.4 ~ 64.8V		
		Protection type : Shut down o/p voltage, re-power on to recover									
ENVIRONMENT	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)									
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes									
SAFETY & EMC (Note. 8)	SAFETY STANDARDS	IEC 60601-1:2005+A1+A2; IEC 60601-1-11:2015+A1, TUV BS EN/ EN 60601-1:2006+A1+A12+A2; BS EN/ EN 60601-1-11:2015+A1, EAC TP TC 004 approved									
	ISOLATION LEVEL	Primary-Secondary: 2xMOPP									
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC									
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH									
	EMC EMISSION	Parameter	Standard					Test Level / Note			
		Conducted emission	EN55011 (CISPR11)					Class B			
		Radiated emission	EN55011 (CISPR11)					Class B			
		Harmonic current	EN61000-3-2					Class A			
		Voltage flicker	EN61000-3-3					-----			
	EMC IMMUNITY	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 3, 10V				
Magnetic field immunity		EN61000-4-8					Level 4, 30A/m				
Voltage dip, interruption	EN61000-4-11					100% dip 1 periods, 30% dip 25 periods, 100% interruptions 250 periods					
OTHERS	MTBF	3888.9K hrs min.    Telcordia SR-332 (Bellcore) ; 794.6K hrs min.    MIL-HDBK-217F (25°C)									
	DIMENSION	79*54*33mm (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	<ol style="list-style-type: none"> <li>All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.</li> <li>DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</li> <li>Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1 <math>\mu</math> F &amp; 47 <math>\mu</math> F capacitor.</li> <li>Tolerance: includes set up tolerance, line regulation, load regulation.</li> <li>Line regulation is measured from low line to high line at rated load.</li> <li>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.</li> <li>Derating may be needed under low input voltage. Please check the derating curve for more details.</li> <li>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="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a>)</li> </ol>										
	※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>										



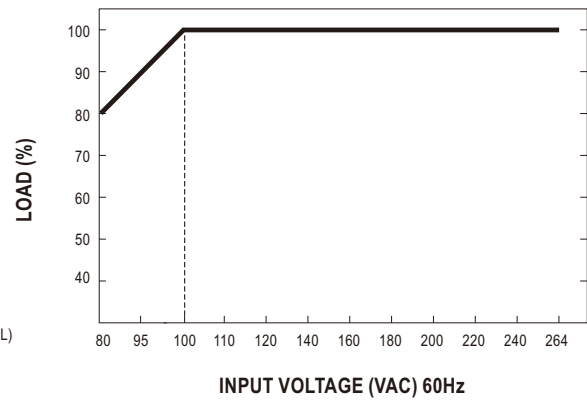
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Derating Curve

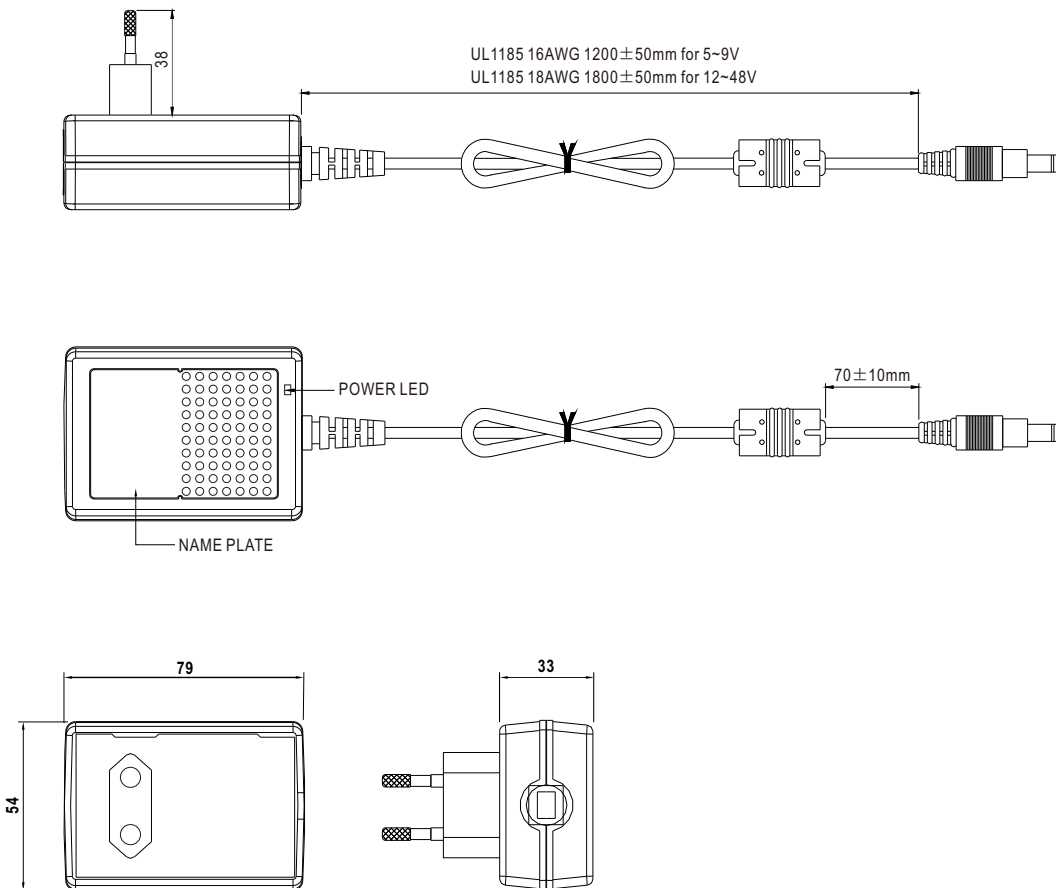


Static Characteristics



Mechanical Specification

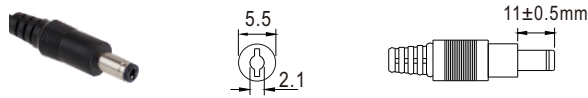


Unit:mm





■ DC output plug

◎ Standard plug: P1J

P1J	Pin Assignment
	
	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 (Straight)	5.5	2.1	9.5	Available (Current rating: 7.5A max.)
	P1L (Straight)	5.5	2.5	9.5	
	P1M (Straight)	5.5	2.5	11.0	
	P1IR (Right-angled)	5.5	2.1	9.5	
	P1JR (Right-angled)	5.5	2.1	11.0	
	P1LR (Right-angled)	5.5	2.5	9.5	
P1MR (Right-angled)	5.5	2.5	11.0		
Barrel Style	Type No.	A	B	C	Quick Adapter Accessory
		OD	ID	L	
	P2I (Straight)	5.5	2.1	9.5	None
	P2J (Straight)	5.5	2.1	11.0	
	P2L (Straight)	5.5	2.5	9.5	
	P2M (Straight)	5.5	2.5	11.0	
	P2IR (Right-angled)	5.5	2.1	9.5	
	P2JR (Right-angled)	5.5	2.1	11.0	
	P2LR (Right-angled)	5.5	2.5	9.5	
	P2MR (Right-angled)	5.5	2.5	11.0	
Lock Style	Type No.	A	B	C	Quick Adapter Accessory
		OD	ID	L	
	P2S(S761K)	5.53	2.03	12.06	None
	P2K(761K)	5.53	2.54	12.06	
	P2C(S760K)	5.53	2.03	9.52	
	P2D(760K)	5.53	2.54	9.52	



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Min. Pin Style	Type No.	A	B	C	Quick Adapter Accessory	
		OD	ID	L		
	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		
Center Pin Style	Type No.	A	B	C	D	Available (Current rating: 7.5A max.)
	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		Available (Current rating: 7.5A max.)		
	R6B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
3	+Vo					
Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment		Available (Current rating: 7.5A max.)		
	R7B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
4	+Vo					
Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment		None		
	R7BF	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
4	+Vo					
DIN 5 Pin (male)	Type No.	Pin Assignment		Available (Current rating: 7.5A max.)		
	R1B	PIN No.	Output			
		1	-Vo			
		2	-Vo			
		3	+Vo			
		4	-Vo			
5	+Vo					
Stripped and tinned leads	Type No.	Pin Assignment		None		
<p>Length of Land L1 by request (MW's standard length, L: 25 mm, L1: 5 mm) ( NOTE: The wire color is for reference only, please refer to the actual product)</p>	by customer	PIN No.	Output			
		1	+Vo			
2	-Vo					

■ Installation Manual

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