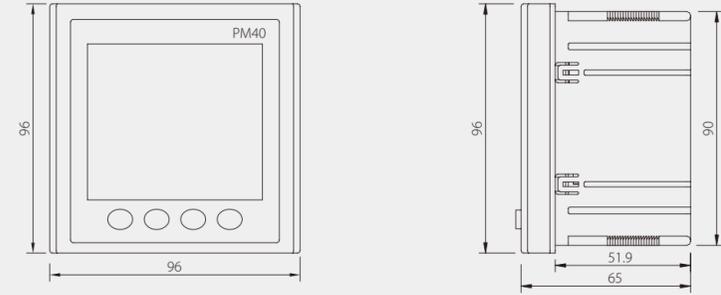
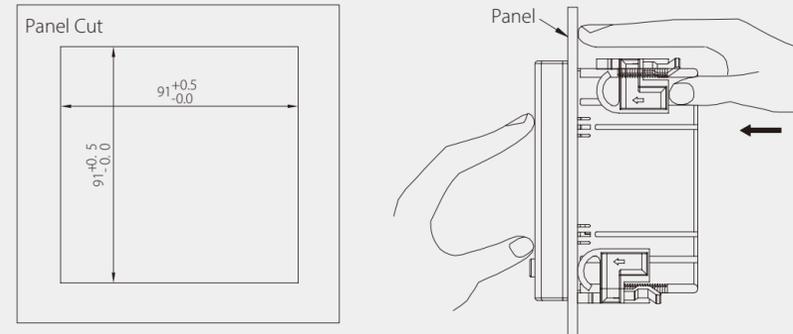


PM40 Dimension

Appearance

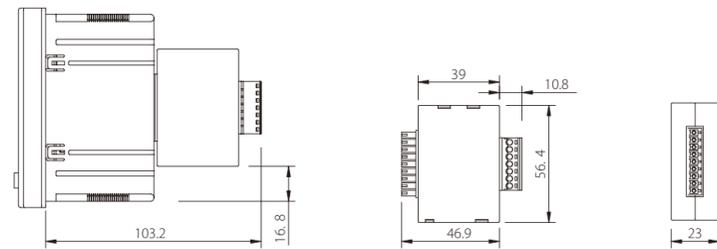


Panel Cut & Installation

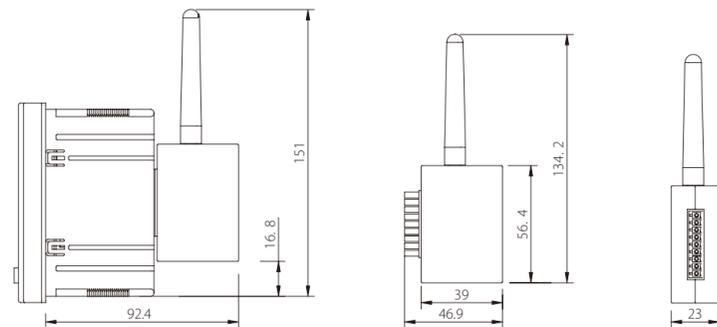


Expanded Modular

M1/M2/M3 Modular



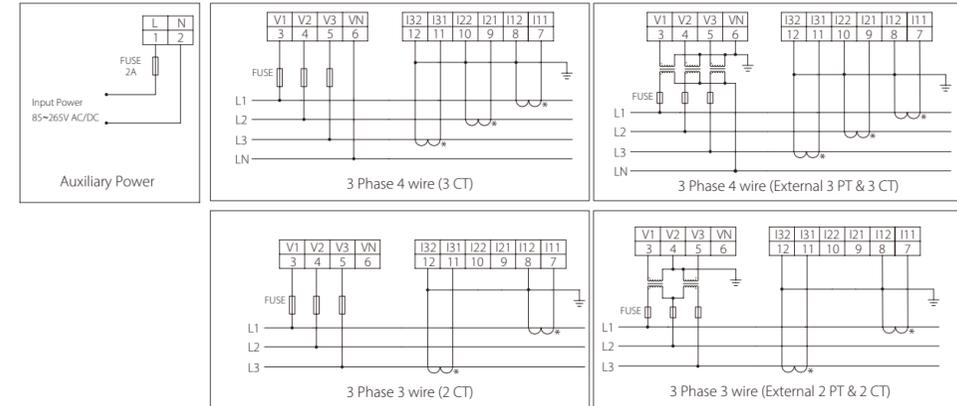
M4 Modular



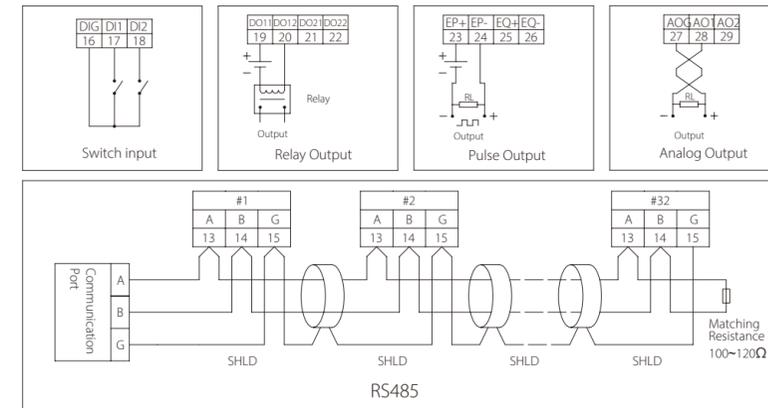
PM40 Terminal block

Terminal	Auxiliary Power			Power Input			Current Input					
No.	1	2	3	4	5	6	7	8	9	10	11	12
Code	L	N	V1	V2	V3	VN	I11	I12	I21	I22	I31	I32

Modular	M1			M2						Modular	M3							
Terminal	Communication			Switch Input			Relay Output			Terminal	Pulse Output			Analog Output				
No.	13	14	15	16	17	18	19	20	21	22	No.	23	24	25	26	27	28	29
Code	A	B	G	DIG	DI1	DI2	DO11	DO12	DO21	DO22	Code	EP+	EP-	EQ+	EQ-	AOG	AO1	AO2



Note: Input power can not exceed 480Vac (line voltage), otherwise please consider to add external PT.
Input current can not higher than 5A, otherwise please add external CT. If there is other device connecting to CT, please apply series connecting method. Before remove the current from the product, must open the primary side or secondary side.



Please follow the wiring diagram when applying expanded modulators



B210127E.METER-PM40.3F

Breaker & switchgears overseas sales dept.

3F, No.9, Sec. 1, Chang-an E. Rd., Zhongshan Dist., Taipei City 10441, Taiwan
T. +886-2-2541-9822 F. +886-2-2581-2665
e-mail. b.export@seec.com.tw
<http://circuit-breaker.seec.com.tw>

Headquarters

16F, No.88, Sec. 6, Zhongshan N. Rd., Shilin Dist., Taipei City 11155, Taiwan
T. +886-2-2834-2662 F. +886-2-2836-6187
<http://www.seec.com.tw>



DIGITAL POWER METER PM SERIES

Breaker & switchgears overseas Sales dept.
<http://circuit-breaker.seec.com.tw>

Headquarters
<http://www.seec.com.tw>

Digital power meter PM40 operates under $U_e=480V_{ac}$ and $I_n=5A$ power system.

PM series power meter features with measuring function, such as current, voltage, power factor, harmonic and so on.

It can be expended with switch input DI, relay output DO, Analog output AO, RS-485 communication port and

ModBus-RTU supported, in order to achieve data exchange, digital management and system monitoring.

Feature

1. LCD display selectable.
2. Powerful data process capability, various data monitoring.
3. PM40 modularized accessory provides flexible and expendable choice.
4. PM40 can select LoRa wireless communication, no connection wire needed.

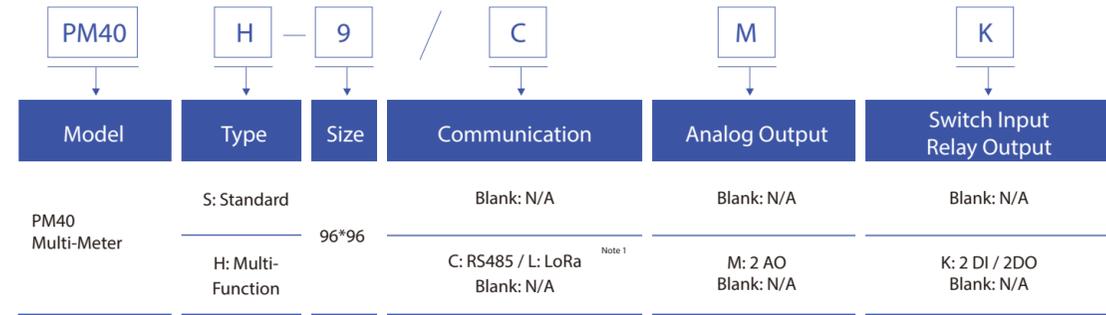


5. PM40 modularized Accessories separate each functions.



M1 RS485 Communication M2 Switch Input Relay Output M3 Analog Output M4 LoRa wireless communication

PM40 Type Designation



PM40 Function Table

Function	Model				
	PM40S	PM40H	Class of Accuracy		
Measurement parameter	Interface	LCD Display button	● ^{Note 2}	●	-
	Power	U1、U2、U3 U12、U23、U31、Uavg	●	●	±0.5%
	Current	I1、I2、I3、IN、Iavg	●	●	±0.5%
	Frequency	Hz	●	●	±0.1Hz
	Active power	PΣ、P1、P2、P3	●	●	±1.0%
	Reactive power	QΣ、Q1、Q2、Q3	●	●	±2.0%
	Apparent power	SΣ、S1、S2、S3	●	●	±1.0%
	Power Factor	PFΣ、PF1、PF2、PF3	●	●	±1.0%
	Active Energy	EPΣ、EP1、EP2、EP3	●	●	±1.0%
	Reactive Energy	EQΣ、EQ1、EQ2、EQ3	●	●	±2.0%
	Four Quadrant Energy	EP+、EP-、EQ+、EQ-	●	●	±2.0%
	Multi-rate energy statistics (4 rates)	EPS、EPP、EPF、EPV EQS、EQP、EQF、EQV	●	●	±2.0%
	Max. Demand	PDM、PDM occur time IDM1、IDM2、IDM3、IDMavg	●	●	±1.0%
Total Harmonic Distortion Rate	THDU1、THDU2、THDU3 THDI1、THDI2、THDI3	●	●	±5.0%	
Expanded Function	Switch Input	DI1、DI2	-	○	-
	Relay Output	DO1、DO2	-	○	-
	Analog Output	AO1、AO2	-	○	±5.0%
	Energy Pulse Output	PO、QO	-	○	±2.0%
	RS485	ModBus-RTU Protocol, RS485 Port	-	○	-
	LoRa	Standard Radio Band 433MHz (Can be customized)	-	○	-
	Real Time Clock	Year/Month/Day/Hour/Minute/Second	●	●	-
	Alarm	Over Current, Over Voltage, Under Voltage, Over Frequency, Under Frequency, Voltage Imbalance, Current Imbalance, SOE Alarm Log(10)	-	○	-

Note 1: Choose only one from RS485 or LoRa

Note 2: "●" Standard, "○"Option

PM40 Specification

Parameter	Specification			
	PM40S	PM40H		
System	wiring	3 Phase 3 wire & 3 Phase 4 wire common use		
	Frequency	50/60Hz		
Power Input	Rated Voltage U_e	100V _{L-L} / 400V _{L-L} common use		
	Overvoltage Load	Contentious : 1.2U _e Instantaneous : 2U _e , 1min		
	Measuring Range	40~277V _{L-N} 70~480V _{L-L}		
	Extend PT Ratio	1~9999		
	Input Power consumption	< 0.5VA		
	Frequency Measuring Range	45~65Hz		
Current Input	Rated Current I_e	1A/5A · common use		
	Overcurrent Load I_n	Contentious : 1.2I _n Instantaneous : 10I _n · 5s		
	Measuring Range	0.02I _n ~1.2I _n		
Expanded Function (Option)	Extend CT Ratio	1~9999		
	Input Power consumption	< 0.5VA		
Expanded Function (Option)	Pulse Output PO	—	Optocoupler isolation, Active & reactive power pulse Pulse constant settable.	
	Switch Input DI	—	1. Dry contact input, optocoupler isolation 2. 2 sets selectable 3. Remote control by communication function.	
	Relay Output DO	—	1. Parallel power parameter upper & lower limit alarm setting. 2. 2 sets selectable 3. Remote control by communication function. 4. Relay contact capacity: 5A 250Vac / 5A 30Vdc	
Expanded Function (Option)	Analog Output AO	—	Power parameter will be inverted to DC current output. DC 0-20mA / DC 4-20mA selectable Load resistance ≤ 300Ω, overload 120%	
	RS485 Communication (Option)	Port	—	RS485
LoRa Wireless Communication (Option)	Protocol	—	—	ModBus-RTU Protocol
	Baud Rate	—	—	1200~38400 bps Settable
Auxiliary Power	Wireless Type	—	—	LoRa Wireless
	Radio Band	—	—	Band 433 MHz (Can be customized)
Safety	Operation Voltage Range	AC/DC 85V ~ 265V · 50/60Hz		
	Power Consumption	< 5W		
Safety	Terminal Withstand Voltage	Case/Power/Voltage/Current/Relay Output > AC2kV 1min Communication/Pulse/Switch > AC1kV 1min		
	Insulation Resistance	Input and Output terminal to case > 100MΩ		
	IP Class	Panel IP52, Body IP20		
	Suggested Fuse	2A		

Note: Choose only one from RS485 or LoRa