

TNP04 Modbus

TPM-04, TPM-04SH, TPM-01ES and TPM-01ESH Energy Analyser Basic Data Modbus Address

The **Float** Consists Of Two Registers, With The High Reg At The Beginning and The Low Reg At The End. Floating point numbers adopt the IEEE 754 standard.
u16 is Unsigned 16-bit.

Address (Dec)	Address (Hex)	Register Discription	Data Type	Read/Write	Unit	Real Value
4000	FA0	L1 Voltage	float	Read	V	0.0~Vmax
4002	FA2	L2 Voltage	float	Read	V	0.0~Vmax
4004	FA4	L3 Voltage	float	Read	V	0.0~Vmax
4006	FA6	L1 Minimum Voltage	float	Read	V	0.0~Vmax
4008	FA8	L2 Minimum Voltage	float	Read	V	0.0~Vmax
4010	FAA	L3 Minimum Voltage	float	Read	V	0.0~Vmax
4012	FAC	L1 Maximum Voltage	float	Read	V	0.0~Vmax
4014	FAE	L2 Maximum Voltage	float	Read	V	0.0~Vmax
4016	FB0	L3 Maximum Voltage	float	Read	V	0.0~Vmax
4018	FB2	L1 Average Voltage	float	Read	V	0.0~Vmax
4020	FB4	L2 Average Voltage	float	Read	V	0.0~Vmax
4022	FB6	L3 Average Voltage	float	Read	V	0.0~Vmax
4024	FB8	L12 Voltage	float	Read	V	0.0~Vmax
4026	FBA	L23 Voltage	float	Read	V	0.0~Vmax
4028	FBC	L31 Voltage	float	Read	V	0.0~Vmax
4030	FBE	L12 Minimum Voltage	float	Read	V	0.0~Vmax
4032	FC0	L23 Minimum Voltage	float	Read	V	0.0~Vmax
4034	FC2	L31 Minimum Voltage	float	Read	V	0.0~Vmax
4036	FC4	L12 Maximum Voltage	float	Read	V	0.0~Vmax
4038	FC6	L23 Maximum Voltage	float	Read	V	0.0~Vmax
4040	FC8	L31 Maximum Voltage	float	Read	V	0.0~Vmax
4042	FCA	L12 Average Voltage	float	Read	V	0.0~Vmax
4044	FCC	L23 Average Voltage	float	Read	V	0.0~Vmax
4046	FCE	L31 Average Voltage	float	Read	V	0.0~Vmax
4048	FD0	L1 Current	float	Read	A	0.0~Imax
4050	FD2	L2 Current	float	Read	A	0.0~Imax
4052	FD4	L3 Current	float	Read	A	0.0~Imax
4054	FD6	L1 Demand Current	float	Read	A	0.0~Imax
4056	FD8	L2 Demand Current	float	Read	A	0.0~Imax
4058	FDA	L3 Demand Current	float	Read	A	0.0~Imax
4060	FDC	L1 Active Power	float	Read	W	0.0~Pmax
4062	FDE	L2 Active Power	float	Read	W	0.0~Pmax
4064	FE0	L3 Active Power	float	Read	W	0.0~Pmax
4066	FE2	L1 Demand Active Power	float	Read	W	0.0~Pmax
4068	FE4	L2 Demand Active Power	float	Read	W	0.0~Pmax
4070	FE6	L3 Demand Active Power	float	Read	W	0.0~Pmax
4072	FE8	L1 Reactive Power	float	Read	Var	0.0~Qmax
4074	FEA	L2 Reactive Power	float	Read	Var	0.0~Qmax
4076	FEC	L3 Reactive Power	float	Read	Var	0.0~Qmax
4078	FEE	L1 Demand Reactive Power	float	Read	Var	0.0~Qmax
4080	FF0	L2 Demand Reactive Power	float	Read	Var	0.0~Qmax
4082	FF2	L3 Demand Reactive Power	float	Read	Var	0.0~Qmax

4084	FF4	L1 Apparent Power	float	Read	VA	0.0~Smax
4086	FF6	L2 Apparent Power	float	Read	VA	0.0~Smax
4088	FF8	L3 Apparent Power	float	Read	VA	0.0~Smax
4090	FFA	L1 Demand Apparent Power	float	Read	VA	0.0~Smax
4092	FFC	L2 Demand Apparent Power	float	Read	VA	0.0~Smax
4094	FFE	L3 Demand Apparent Power	float	Read	VA	0.0~Smax
4096	1000	L1 Power Factor	float	Read	X	-1.00..1.00
4098	1002	L2 Power Factor	float	Read	X	-1.00..1.00
4100	1004	L3 Power Factor	float	Read	X	-1.00..1.00
4102	1006	L1 CoS ϕ	float	Read	X	-1.00..1.00
4104	1008	L2 Cos ϕ	float	Read	X	-1.00..1.00
4106	100A	L3 Cos ϕ	float	Read	X	-1.00..1.00
4108	100C	L1 Frequency	float	Read	Hz	0.0..70.0
4110	100E	L2 Frequency	float	Read	Hz	0.0..70.0
4112	1010	L3 Frequency	float	Read	Hz	0.0..70.0
4114	1012	L1 THD Voltage	float	Read	%	0.00~100.00
4116	1014	L2 THD Voltage	float	Read	%	0.00~100.00
4118	1016	L3 THD Voltage	float	Read	%	0.00~100.00
4120	1018	L1 THD Current	float	Read	%	0.00~100.00
4122	101A	L2 THD Current	float	Read	%	0.00~100.00
4124	101C	L3 THD Current	float	Read	%	0.00~100.00
4126	101E	L1 Active Import Energy	float	Read	kWh	0.0~EPmax
4128	1020	L2 Active Import Energy	float	Read	kWh	0.0~EPmax
4130	1022	L3 Active Import Energy	float	Read	kWh	0.0~EPmax
4132	1024	L1 Active Export Energy	float	Read	kWh	0.0~EPmax
4134	1026	L2 Active Export Energy	float	Read	kWh	0.0~EPmax
4136	1028	L3 Active Export Energy	float	Read	kWh	0.0~EPmax
4138	102A	L1 Inductive Energy	float	Read	kVarh	0.0~EQmax
4140	102C	L2 Inductive Energy	float	Read	kVarh	0.0~EQmax
4142	102E	L3 Inductive Energy	float	Read	kVarh	0.0~EQmax
4144	1030	L1 Capacitive Energy	float	Read	kVarh	0.0~EQmax
4146	1032	L2 Capacitive Energy	float	Read	kVarh	0.0~EQmax
4148	1034	L3 Capacitive Energy	float	Read	kVarh	0.0~EQmax
4150	1036	Unbalance Voltage	float	Read	%	0.0..100.0
4152	1038	Unbalance Current	float	Read	%	0.0..100.0
4154	103A	Digital Input Bits	u16	Read	X	0..1
4155	103B	Digital Output Bits	u16	Read	X	0..1
Address (Dec)	Address (Hex)	Register Discription	Data Type	Read/Write	Unit	Multiplier
5000	1388	L1.00 HD Voltage	u16	Read	%	Data*0.01
5001	1389	L1.01 HD Voltage	u16	Read	%	Data*0.01
5002	138A	L1.02 HD Voltage	u16	Read	%	Data*0.01
5003	138B	L1.03 HD Voltage	u16	Read	%	Data*0.01
5004	138C	L1.04 HD Voltage	u16	Read	%	Data*0.01
5005	138D	L1.05 HD Voltage	u16	Read	%	Data*0.01
...	...	...				Data*0.01
5031	13A7	L1.31 HD Voltage	u16	Read	%	Data*0.01
5032	13A8	L2.00 HD Voltage~L2.31	u16*32	Read	%	Data*0.01
5064	13C8	L3.00 HD Voltage~L3.31	u16*32	Read	%	Data*0.01

5096	13E8	L1.00 HD Current~L1.31	u16*32	Read	%	Data*0.01
5128	1408	L2.00 HD Current~L2.31	u16*32	Read	%	Data*0.01
5160	1428	L3.00 HD Current~L3.31	u16*32	Read	%	Data*0.01
Address (Dec)	Address (Hex)	Register Discription	Data Type	Read/Write	Unit	Real Value
6000	1770	Current Transformer Ratio	u16	Read/Write	X	1..5000
6001	1771	Voltage Transformer Ratio	u16	Read/Write	X	1.0..999.0
6002	1772	Modbus Baudrate	u16	Read/Write	X	0..5
6003	1773	Modbus Data Mode	u16	Read/Write	X	0..5
6004	1774	Modbus ID	u16	Read/Write	X	1..247
6005	1775	User Password	u16	Read/Write	X	0..9999
6006	1776	Backlight Duration	u16	Read/Write	Minute	1..60
6007	1777	Out1 Relay Control Parameter	u16	Read/Write	X	0..9
6008	1778	Out1 Relay Control Function	u16	Read/Write	X	0..1
6009	1779	Out1 Relay Control Value	u16	Read/Write	X	See More
6010	177A	Out1 Relay Control Delay	u16	Read/Write	X	0..1000
6011	177B	Out1 Relay Control Hysteresis	u16	Read/Write	X	0..10
6012	177C	Out2 Relay Control Parameter	u16	Read/Write	X	0..9
6013	177D	Out2 Relay Control Function	u16	Read/Write	X	0..1
6014	177E	Out2 Relay Control Value	u16	Read/Write	X	See More
6015	177F	Out2 Relay Control Delay	u16	Read/Write	X	0..1000
6016	1780	Out2 Relay Control Hysteresis	u16	Read/Write	X	0..10
6017	1781	Wiring Method	u16	Read/Write	X	0..1
Address (Dec)	Address (Hex)	Register Discription	Data Type	Read/Write	Unit	Real Value
7000	1B58	Parameter Control Command	u16	Read/Write	X	
RS485		Modbus Baudrate	Content		Unit	
		0	1200		bps	
		1	2400		bps	
		2	4800		bps	
		3	9600		bps	
		4	19200		bps	
		5	38400		bps	
RS485		Modbus Data Mode	Content		Unit	
		0	1 Stop Bits,None Parit	X		
		1	1 Stop Bits,Even Parit	X		
		2	1 Stop Bits,Odd Parity	X		
		3	2 Stop Bits,None Parit	X		
		4	2 Stop Bits,Even Parit	X		
		5	2 Stop Bits,Odd Parity	X		
Out1/Out2		Relay Control Parameter	Content		Unit	Real Value
		0	OFF		X	
		1	Uln		V	10..500
		2	Iln		0.01A	10..500
		3	Ilt		0.01A	10..500
		4	THDU		%	1..50
		5	THDI		%	1..50

		6	PF		0.01X	50..99
		7	U Un		%	1..50
		8	I Un		%	1..50
		9	DI n		X	X
Out1/Out2		Relay Control Function	Content			
		0	Low			
		1	High			
Parameter		Parameter Control Command	Content			
		0x55AA	Parameter Write Enable			
		0x55BB	Parameter Write Disable			
		0x55FF	Save Parameter Data			
Note: Before writing parameters, the command must be enabled by 0x55AA, which will reload the parameters. To save the written parameters, please use 0x55FF.						