

GM50W series configuration and instructions ver1.0

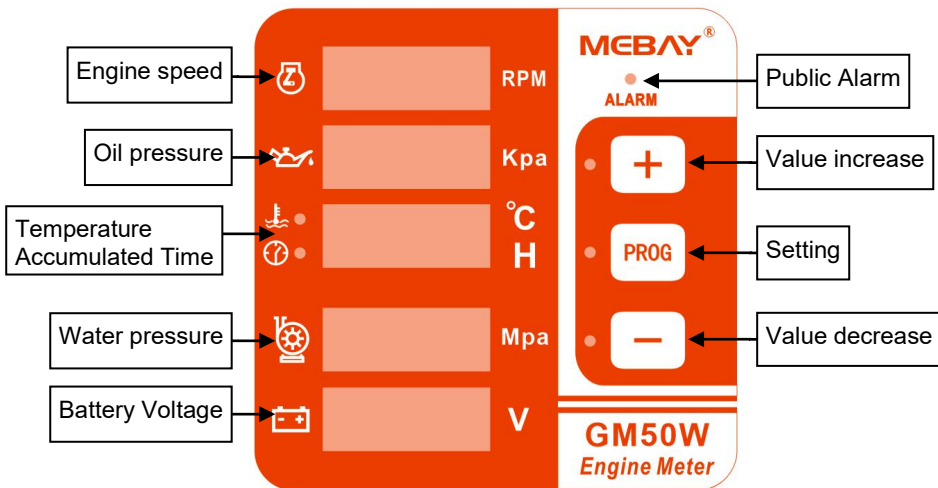
Brief Introduction

There are two models for GM50W series Meter:

GM50W: monitor and display RPM, Oil Pressure, Water pressure, Fuel Temperature, Battery voltage and Accumulation Time with Alarm function added.

GM50WR: Based on the functions of GM50W, RS485 Port is added to support MODBUS Protocol.

Panel Design and Display



Parameters Settings

Press “PROG” for 4 sec, loose it when “P-00” displayed, which means system comes into setting page and display the first option.

Press “+”or“ -”to choose the options and press “PROG” to set. Press “+”or“ -”again to set the right value. Then press “PROG” to revert back to last layer and press “PROG” again for more than 4 sec to save the value.

Press “PROG” and “+”simultaneously for more than 4sec: when “nu.1” is displayed, it means system comes into curve setting page. Press “+”or“ -”to choose the curve needed to be modified (1- Oil pressure,2-temperature).Then press “PROG” to set, choose the value of resistance(A) and sensor value(d) by pressing “+”or“-”,press “PROG” again to set. Then press “PROG” to revert back to last layer and press “PROG” and “+” for more than 4 sec to save the value.

[Resistance input data: from min to max,; if the value is not enough, the final data is the same as the last step value.]



Notes: it is valid for the changed value once adjusted.

Code	Parameter	Range(Defaults)	Notes
P00	Flywheel teeth	0-300(0)	If the setting is 0, RPM sensor Disabled, then RPM is resulted by Hz.
P01	Reserved		
P02	Oil pressure sensor	0:Disabled 1:VD0 0-10bar 2:MEBAY-003B 3:SGH	Choose the usual oil pressure sensor, if the sensor users choose is not the 9 types, it can be User-defined.

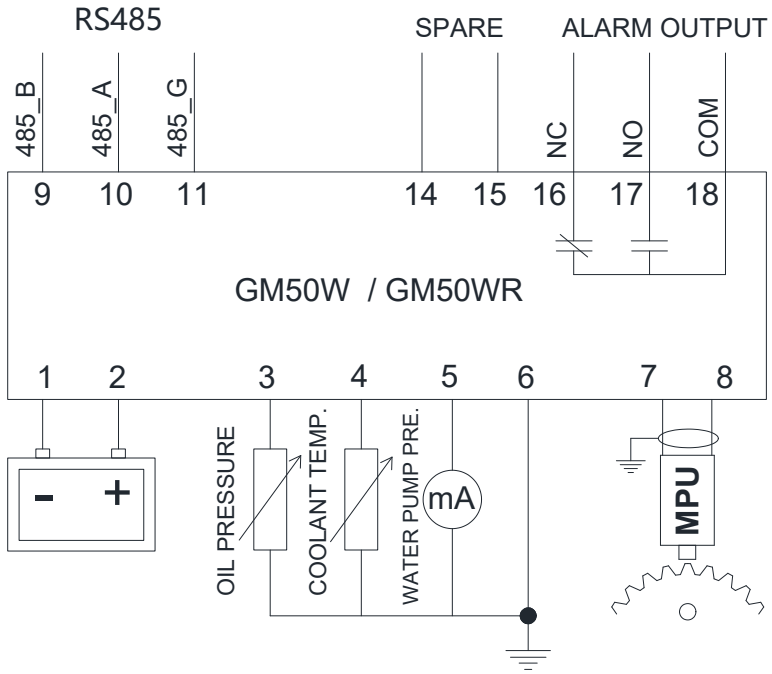
		4:SGD 5:SGX 6:CURTIS 7:DATCON 10Bar 8:VOLVO_EC 9:3015237 10Bar 10:WEICHAI 0-6Bar 11:ZYDQ 0-8Bar 12:SIQIANG 0-10Bar 13:Self-defined	
P03	Temperature sensor	0:Disabled 1:VDO 40 ℃-120 ℃ 2:MEBAY-001B 3:SGH 4:SGD 5:SGX 6:CURTIS 7:DATCON 8:VOLVO_EC 9:3015238 10:PT100 11:MEBAY-Mier 12:WEICHAI 40-120℃ 13:CC073 25-125℃ 14:SIQIANG 30-120℃ 15:Self-defined	Choose the usual temperature sensor, if the sensor users choose is not the 11 types, it can be User-defined.
P04	Water pressure sensor range	0-10.0MPa(0.6MPA)	Set the range of the water pressure sensor. The input type of water pressure sensor is 4-20 mA current signal, linear input. If set to 0, then the overwater pressure sensor is disabled.
P05	Over speed alarm	0-6000RPM(1650RPM)	if the value is set as 6000, then the over speed alarm is disabled.
P06	Over speed delay	0.0-5S(0.5S)	When the engine speed is higher than the preset value, it is regarded as over speed.
P07	Low oil pressure alarm	0-500 KPA(100KPA)	if the value is set as 0, then the over speed alarm is disabled.
P08	High temperature alarm	50-150℃(95 ℃)	if the value is set as 150, then the over speed alarm is disabled.
P09	Low water pressure alarm	0-1.00MPa(0.08MPa)	Set the alarm value of low water pressure and disable the alarm when it is set to 0.
P10	Sensor alarm delay	0.5-15.0S(5.0S)	Sensor alarm delay.
P11	Under battery	8.0-36.0V(9.0V)	if the value is set as 5, then the under


	voltage warning		battery voltage is disabled.
P12	Page-change delay	1.0-120.0S(120.0S)	Interval time for temperature and Accumulated Time, the max time is manually change.
P13	RPM for start success	200-1000RPM(600RPM)	When the RPM is over than the pre-set value once on power, then it is regarded that engine crank successfully.
P14	Oil Pressure for start success	138-412KPA(206KPA)	When the oil pressure is over than the pre-set value once on power, then it is regarded that engine crank successfully.
P15	Engine safety delay	3-300.0S(10.0S)	Low oil pressure, high temperature, low water pressure, Under battery voltage are all invalid during this time except for over speed.
P16	Alarm output time	0-120.0S(30.0S)	Alarm relay output setting. 0:alarm output disabled; 120:alarm output all the time.
P17	Water pump safety delay	3-600.0S(100.0S)	Low water pressure is invalid during this time.
P18	RS485 ID	1-254(16)	RS485 ID setting, only for GM50WR.
P19	Alarm function	0:Disabled 1:Available	All the alarm indications and outputs are forbidden if it is set as 0.

Specification

- ◆ DC Supply: 8~36 V continuous;
- ◆ Consumption Power: MAX 1.5 W;
- ◆ Sensor Resistance: 0~1000 Ohm;
- ◆ Magnetic Input Frequency: Freq 50Hz~10kHz;
- ◆ Magnetic Pick-up Voltage Input Range: AC 3~65 V;
- ◆ Input Power Signal: AC40~280V(45~70Hz);
- ◆ RPM Accuracy: deviation $\leq \pm 1\%$;
- ◆ Oil Pressure Accuracy: 0-1000KPA, deviation $\leq \pm 2.5\%$;
- ◆ Temperature Accuracy: 20-100°C, deviation $\leq \pm 2.5\%$;
- ◆ Water pressure Accuracy: 0-10MPa, display resolution 0.001, deviation $\leq \pm 2\%$;
- ◆ Battery Voltage Accuracy: deviation $\leq \pm 1\%$;
- ◆ Accumulation Time :0-999999Hours;
- ◆ Min Time Record :0.1Hours;
- ◆ Alarm Output: Neg-output, Max DC3A;
- ◆ Operation Temperature: -20~65°C;
- ◆ Storage Temperature: -40~85°C;
- ◆ Ingress Protection: IP54(The front face after installation);
- ◆ Size (W * H * D): 100mm*100mm*77mm;
- ◆ Installation Size (W * H): 91mm*91mm;
- ◆ Weight: 150 g.

Typical diagram



 **Notes 1:** These ground connections must be on the engine block, and must be to the sensor bodies.

 **Warning:**
Please don't move battery during running status or it may cause the meter broken.

 **Notes 2:**

1. Generator voltage and MPU are both used for RPM sensing, whose signals are all valid but MPU's signals first.
2. After initials on power, when the oil pressure is over than "RPM for start success" or "Oil Pressure for start success" of crank success, then it is regarded as crank success, then it begins to count for engine safety delay ,alarm shall occur if failures are tested after delay.When the engine safety delay is over, the safety delay of water pump will start. When the water pressure is below the set value, the fault delay and alarm will start.
3. **Please test and confirm if the alarm protection function is valid when installation. Please kindly contact with our aftersales clerk if any question.**
4. Alarms shall be cleared only if power cut off and re-connected.
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