MEM40
发动机监控仪

ENGINE MONITORING CONTROLLER

● 简介

可用于单台发动机自动化控制系统，实现发动机的机旁开机／停机、遥控开机／停机、数据测量、显示、报警保护等功能。控制箱带有远程监控接口，可接入远传模块 MEM40-RM 或 HMC4300RM-MEM40，实现发动机的远程开机、停机等功能。

Overview

The Engine Monitoring Controller, used for automatic control system of single engine, which can realize engine local/remote start/stop, data measurement, display, alarm protection and etc. With remote monitoring interface, it can connect remote monitoring module MEM40-RM or HMC4300RM-MEM40, and realize engine remote start, stop and other functions.

● 特点

- 4.3英寸240×128分辨率大屏LCD液晶显示、可中/英文显示

- J1939通信接口，可支持几十种电控发动机的监控

- RS485接口支持MODBUS RTU通信协议

- 在机旁模式下可通过面板按键开机/停机。在遥控模式下可通过远传模块开机/停机

- 远程监控接口，可接入远传模块，在遥控模式下可实现遥控开机和停机

- 越控功能，越控模式有效时除紧急停机和超速停机外其它任何报警都不停机

- 安保接口，通过此接口可接入安保转速和安保油压传感器

- 自检模式，自检模式有效时可以对设置的报警进行自检

- 报警自锁功能

- 报警记录和起停机事件记录功能

- 显示最多10个SPN报警内容

- 远传模块MEM40-RM或HMC4300RM-MEM40无需设置任何参数，自动同步MEM40数据和信息
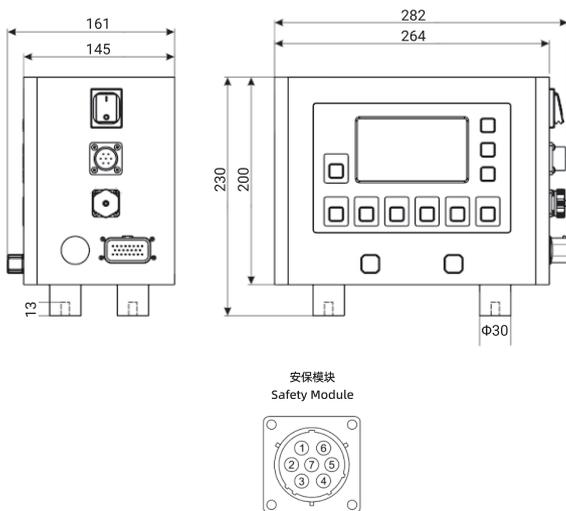
Features

- 4.3-inch LCD display with 240×128 resolution, optional Chinese/English

- Support J1939 communication interface, dozens of ECU engines monitoring can be realized

- RS485 interface supports MODBUS RTU communication protocol

- Start/stop can be achieved via panel key in local mode and achieved via remote monitoring module in remote mode

- With remote monitoring interface and can connect remote monitoring module, remote start/stop can be realized in remote mode

- With override mode, when this mode is active, other alarms without shutdown except for emergency stop and overspeed stop

- With RPU interface, RPU speed and oil pressure sensor can be connected via it

- With self-check mode, when this mode is active, it can self-check setting alarm

- Alarm self-lock function

- Alarm log and start/stop event log function

- Display up to 10 SPN alarm contents

- MEM40-RM module or HMC4300RM-MEM40 can automatically synchronize MEM40 data and configuration information without setting any parameters

技术参数 Technical Parameters

SmartGen
EST.1998

直流供电 DC Supply	DC(8~35)V，直流反接保护 双电源检测 分辨率：0.1V 精度：1%	DC(8~35)V, DC reverse connection protection Dual Power Input Resolution: 0.1V Accuracy: 1%
整机功耗 Overall Consumption	<4W（待机方式：≤2W）	<4W (Standby mode: ≤2W)

模拟量传感器 Analog Sensor		范围	分辨率	精度		Range	Resolution	Accuracy
	电阻输入	(0~1000)Ω	0.1Ω	1Ω(300Ω以下)	Resistance Input	(0~1000)Ω	0.1Ω	1Ω(below 300Ω)
	电压输入	(0~5)V	0.01V	1%	Voltage Input	(0~5)V	0.01V	1%
	电流输入	(0~20)mA	0.01mA	1%	Current Input	(0~20)mA	0.01mA	1%

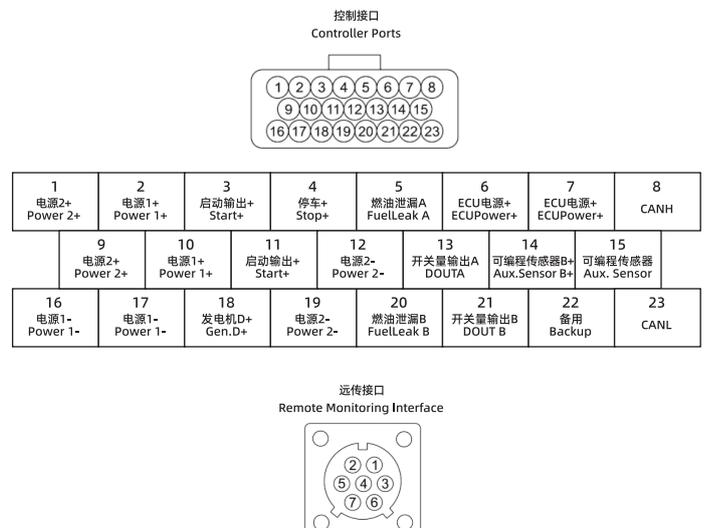|		
外形尺寸 Overall Dimensions	MEM40: 282 × 160.5 × 230mm MEM40-RM: 284 × 227 × 107mm	MEM40: 282 × 160.5 × 230mm MEM40-RM: 284 × 227 × 107mm
环境 Environment	工作温度：(-25~+70)°C 工作湿度：相对湿度：(20~93)%RH 贮存温度：(-30~+80)°C 防护等级：IP44	Working Temperature: (-25~+70)°C Working Humidity: (20~93)%RH Storage Temperature: (-30~+80)°C IP Rating: IP44
标准和认证 Standards & Certificates	振动：(5~8)Hz: ±7.5mm, (8~500)Hz: 4g IEC 60068-2-6 碰撞：$25g_n$，16ms，半正弦 IEC 60255-21-2 冲击：$50g_n$，11 ms，半正弦 三个互相垂直方向的每一方向连续 施加三次冲击，即共18次 IEC 60068-2-27	Vibration：(5~8)Hz: ±7.5mm, (8~500)Hz: 4g (IEC 60068-2-6) Bump：$25g_n$, 16ms, half-sine (IEC 60255-21-2) Shock：$50g_n$, 11ms, half-sine complete shock test from three mutually perpendicular directions, totally 18 times (IEC 60068-2-27)

尺寸 Dimensions

单位(Unit)：mm

161
145
13

282
264
230
200
Φ30

安保模块
Safety Module

针脚 Pin	1	2	3	4	5	6	7
定义 Definition	RS485A	RS485B	安保油压VCC RPU OPVCC	安保油压GND RPU OPGND	安保油压OUT RPU OPOUT	安保转速A RPUSPEED A	安保转速B RPUSPEED B

端口 Ports

控制接口
Controller Ports

1 电源2+ Power 2+	2 电源1+ Power 1+	3 启动输出+ Start+	4 停车+ Stop+	5 燃油泄漏A FuelLeak A	6 ECU电源+ ECUPower+	7 ECU电源+ ECUPower+	8 CANH
9 电源2+ Power 2+	10 电源1+ Power 1+	11 启动输出+ Start+	12 电源2- Power 2-	13 开关量输出A DOUTA	14 可编程传感器B+ Aux.Sensor B+	15 可编程传感器 Aux. Sensor	
16 电源1- Power 1-	17 电源1- Power 1-	18 发电机D+ Gen.D+	19 电源2- Power 2-	20 燃油泄漏B FuelLeak B	21 开关量输出B DOUT B	22 备用 Backup	23 CANL

远传接口
Remote Monitoring Interface

针脚 Pin	1	2	3	4	5	6	7
定义 Definition	电源+ POWER+	电源- POWER-	NC	紧急停车 Emergency Stop	CANL	CANH	NC