KESENS

电池包安全压力传感器 Battery Safety Detecting Sensor

产品介绍 Product Description

BMS压力检测传感器基于MEMS和ASIC检测技术，具有CAN通讯。用于测量50KPa至260KPa绝压，报警阈值可设置，能很好地检测绝压的瞬态变化,可以为电池安全提供预先检测,保证产品性能和可靠性。

BMS pressure detecting sensor is based on MEMS and ASIC detecting technology, with CAN communication. It can be used to measure 50KPa to 260KPa absolute pressure with settable the warning threshold and detect the transient change of absolute pressure very well. It can provide advance detection for battery safety. This product brings the best combination of performance and reliability.

产品特征及优势 Feature and benefits

- 精度高，温漂低。
  High accuracy and low temperature drift.
- CAN 通信、WAKE-UP 输出和 REQUEST 输入用于高可靠性系统集成。
  CAN communication, WAKE-UP output and REQUEST input for high reliability system integration.
- 绝对压力检测预警阈值可设置，满足不同需求。
  Settable warning threshold for absolute pressure detecting, match with different requirement.
- 激光打标以得到更好的追溯性。
  laser marking for better traceability.
- 根据客户要求，多种量程可选（-5~5,-25~25kpa abs）。
  Different pressure ranges are available on customer request.

电池包安全压力传感器
BPS

产品作用 Application

用于电动汽车和能量存储的电池系统。
Battery systems for electric vehicles and energy storag.

操作 Operation

- **基本原理 Basic principle:**

传感器在 ECO 模式下运行,当电压信号为低且电池组内的绝对压力低于设定阈值时，传感器输出压力值按表格中的周期变化。传感器在休眠时间,CAN信号被禁止输出。

The sensor operates in ECO mode when the voltage signal on the request pin of the connector is low and the absolute pressure inside battery pack is below a set threshold. the sensor output pressure value periodically by the detecting cycle time in table. 1, the sensor disables CAN signal output in rest time.

- **连接选项 Connection options:**

根据客户选择定制连接系统。
Customized to customer choice of connection system.

- **包装选项 Packaging Options:**

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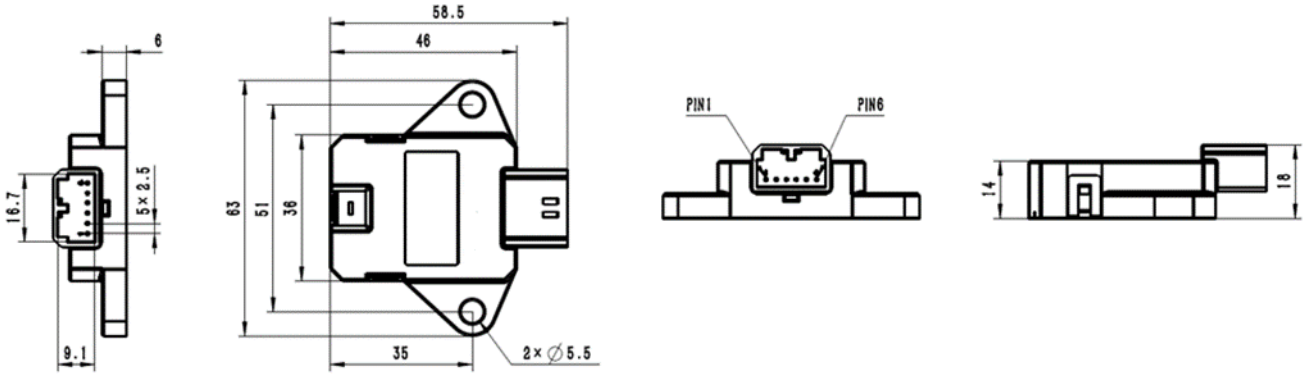
可提供定制包装以满足任何需要，请联系KESENS技术部了解详情。

Custom packaging can be provided to meet any need, please contact KESENS Engineering for details.

技术参数 Functional Characteristics

参数 Parameter	最小 Min	标准 Typical	最大 Max	单位 Uhit	备注 Condition
电源电压 Supply Voltage	6	12	18	V	
过载电压 Over Voltage			24	V	For VIN, 1 minutes@25℃ minutes@25℃
反向电压 Reverse Voltage			-20	V	For VIN, 1 minutes@25℃ minutes@25℃ minutes@25℃
输入电流 Input current		27	30	mA	连续模式 Continuous mode
暗电流 Dark current		120	150	uA	ECO 模式 ECO mode
休眠电流 Sleep current		100		uA	睡眠模式 Sleep mode
工作温度/湿度范围 Operating temperature/humidity range					
工作温度 Ambient operating temperature	-40		105	℃	
储存温度 Storage temperature	-40		105	℃	
压力检测特性 Pressure detecting characteristic					
压力范围 Absolute pressure detecting range	50		260	KPa	
分辨率 Resolution			0.1	KPa	-40℃~ 105℃
精度 Accuracy			±1.2	KPa	0℃~ 85℃
精度 Accuracy			±2.5	KPa	-40℃~ 105℃
ECO 模式检测周期时间 ECO mode detecting cycle time			1	s	ECO mode
响应时间 Response time			30	ms	连续模式下读取压力数据的周期时间 Cycle time for reading pressure data in continuous mode



可根据需要定制电气和环境规范，详情请联系KESENS技术部。

Custom electrical and environmental specifications can be designed to meet any need, please contact KESENS Engineering for details.