

G-TH-Ex EXPLOSION-PROOF BATTERY MONITORING SYSTEM



ATEX & IECEX



INTRODUCTION

G-TH-Ex distributed explosion-proof single battery monitoring module is mainly applied in the petroleum and petrochemical industries, Each module for a cell supports the monitoring of the cell voltage, internal resistance and temperature. Easy for installation and maintenance, the module meets the requirements of the relevant explosion-proof standards of IECEX/ATEX, and is used in the environment of category IIC.

ADVANTAGES



Explosion-proof



intelligent analysis

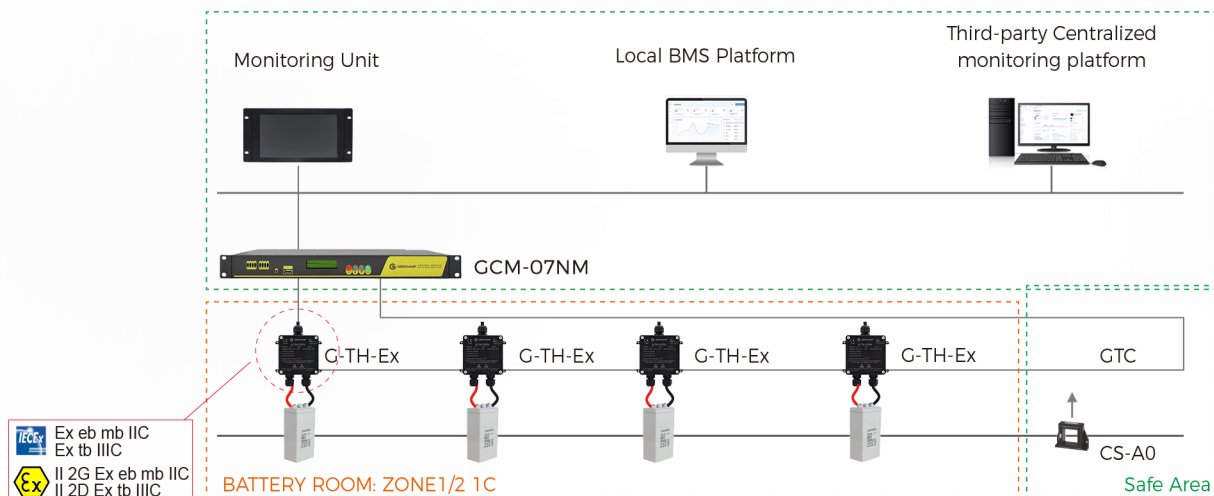


High-accuracy SOC/SOH



Advanced low power consumption design

TOPOLOGY



COMPOSITION



GCM-07NM

Manages max 6 battery strings,
manages max 600 batteries 1
GCM-07NM module/1 system



G-TH-Ex

Monitoring cell voltage, cell
internal resistance, cell negative
pole temperature
1 G-TH-Ex module/1 battery



GTC

Monitoring 3 charge/discharge
current and 2 ambient temperature
1 GTC module/1 battery string

FEATURES

- 1、With 2-channel communication ports, support ring communication connection;
- 2、Adopt distributed single-module design;
- 3、Flexible configuration and strong expansion;
- 4、Adopt low-consumption design, with the minimum consumption of 15mW;
- 5、Ensure the flame-retardant materials for the module's shell and cables;
- 6、Support high stability and long-term running;
- 7、Provide reverse protection function;
- 8、Support MODBUS protocols.

PARAMETER

Item		Measurement			
Working Environment	Working environment: -20 ~ +40°C (0~2000m altitude) Relative humidity: 5 ~ 95% Atmospheric pressure: 80 ~ 110kPa	Content	Range	Accuracy	Resolution
Monitoring Aability	Support monitoring cell voltage, negative terminal temperature and internal resistance for a single battery	Cell voltage	1.2V/2V/2.4V 4.8V/6V/12V Capacity<3000AH	±0.1%	0.001V
Power Requirement	Powered by the monitoring module 1.2V consumption current≤20mA 2V/2.4V consumption current ≤13mA 4.8V/6V/12V consumption current ≤7mA	Cell internal resistance	50 ~ 65535μΩ	±2%	1μΩ
Protection	Support two-level protection, reverse connection protection, optoelectronic isolation, and power-on self-test	Negative terminal temperature	-5 ~ +99.9°C	±1°C	0.1°C
Flame Retardant	Meet UL94-V0 requirement				
Port & Protocol	UART MODBUS/RTU	Certification	ATEx IECEx in progress Ex eb mb IIC T5 Gb & Ex tb IIIC T100°C Db II 2G Ex eb mb IIC T5 Gb & II 2D Ex tb IIIC T100°C Db		
Application Scenarios	Widely used in petrochemical, chemical and offshore wind power and other industries				

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