GERCHAMP

G-TH-Ex
EXPLOSION-PROOF
BATTERY MONITORING SYSTEM

ATEX & IECEx

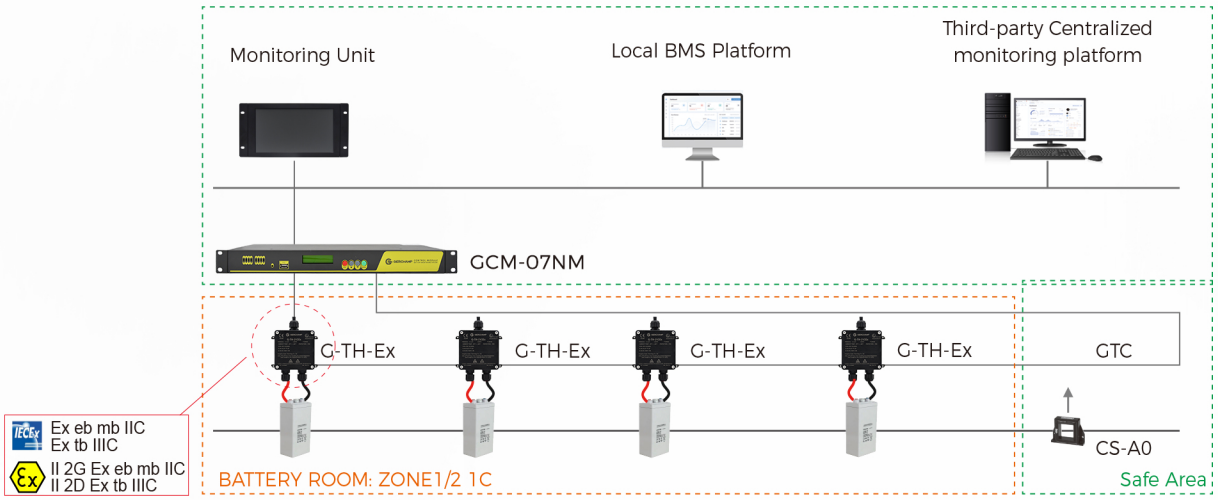
INTRODUCTION

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	
Working Environment	Working environment: -20 ~ +40℃ (0~2000m altitude) Relative humidity: 5 ~ 95% Atmospheric pressure: 80 ~ 110kPa
Monitoring Aability	Support monitoring cell voltage, negative terminal temperature and internal resistance for a single battery
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
Protection	Support two-level protection, reverse connection protection, optoelectronic isolation, and power-on self-test
Flame Retardant	Meet UL94-V0 requirement
Port & Protocol	UART MODBUS/RTU
Application Scenarios	Widely used in petrochemical, chemical and offshore wind power and other industries

Measurement			
Content	Range	Accuracy	Resolution
Cell voltage	1.2V/2V/2.4V 4.8V/6V/12V Capacity<3000AH	±0.1%	0.001V
Cell internal resistance	50 ~ 65535μΩ	±2%	1μΩ
Negative terminal temperature	-5 ~ +99.9℃	±1℃	0.1℃
Certification	ATEx IECEx in progress Ex eb mb IIC T5 Gb & Ex tb IIIC T100℃ Db II 2G Ex eb mb IIC T5 Gb & II 2D Ex tb IIIC T100℃ Db		

GERCHAMP
https://www.gerchamp.com

North America
+140 1257 9992
info@gerchamp.com
Suite802, 440 Cobia Drive, Katy, Texas77494

India
+91 9819 9454 57
ved.kartik@gerchamp.com
Office no 1205, 145 Business bay, 145, Vallabh Baug Ln, Railway Police Colony, Ghatkopar East, Mumbai, Maharashtra 400075, India

Other Area
+86 153 9808 0718
sales@gerchamp.com
2nd & 3rd Floor of No.3 Building, No.1418-50 Moganshan Road, Hangzhou, China