CW8-Z Mine Intrinsically Safe Temperature Inspection Instrument Host

Application:

CW8-Z Mine Intrinsically Safe Temperature Inspection Instrument host can be connected to 8-channel PT100, and can measure the temperature of the equipment under test according to the resistance value of PT100, with local display function. It is mainly used in surface pumping stations/air compressor stations to monitor the temperature of pumps, motors, air compressors and surrounding related equipment.

Features:

◎Channel inspection function
◎ Low power consumption, strong anti-interference ability, suitable for long-distance signal transmission in complex environments.
◎The sensor has sound and light alarm function.

Technical parameters:

◎Measuring resistance value range: (84.27 ~ 175.86)Ω, temperature range: (-40.0 ~ 200.0) ℃
◎Accuracy: ±1 ℃
◎Display resolution: 0.1 ℃
◎Maximum number of channels: 8
◎Working voltage: (12 ~ 24) V DC
◎Working current: ≤60 mA
◎Alarm mode: sound and light alarm, the red alarm light signal can be clearly seen at a distance of 20 m in a dark environment, and the sound level of the sound signal at a distance of 1 m is not less than 80 dB(A)
◎Display mode: 5-digit digital tube display
◎Signal output format: RS485 signal
◎Shell protection grade: IP65
◎Transmission distance: The transmission distance with associated equipment is not less than 6 km
◎Explosion-proof type: Mine intrinsically safe type (explosion-proof mark: Exia I Ma)

KJJ18 Intrinsically Safe Gigabit Network Switch for Coal Mine

Application

KJJ18 intrinsically safe gigabit network switch for coal mine is mainly used for coal mine industrial ring network construction, r ng network expansion, network cascading, etc. It can be coupled with the existing mine ring network, and can realize the connection of underground industrial ethernet intrinsically safe terminal equipment , RS485 terminal equipment and other network terminal equipment, and the real-time, reliability and security of data transmission meet industrial-grade requirements.

Features:

◎ High-performance Gigabit backbone network switch, suitable for setting up coal mine backbone network
◎ The switch conforms to the IEEE802.3 protocol, has an Ethernet optical port, has an Ethernet electrical port, and supports full duplex
◎ The switch has RS485 and CAN data interfaces, which meet the relevant requirements of MT/T899
◎ The switch supports redundant network structures such as rings
◎ The switch has the functions of initialization parameter setting and power failure protection. The initialization parameters can be input and modified through the network or programming interface
◎ The switch can be managed by the network and supports SNMP and other management functions
◎ The switch has VLAN function
◎ The switch has the function of flow control
◎ The switch has the function of self-diagnosis and fault indication
◎ The switch has the functions of power supply, working status and communication status indication

Technical parameters:

◎ Associated power supply: KDW1140/24B
◎ Gigabit optical signal interface: 3 (standard 2 optical modules), LC interface, 10km (20km optional)
◎ Fast optical signal interface: 16 (standard 8 interfaces), SC interface, 20km
◎ Ethernet electrical signal interface: 8
◎ Rs485 signal interface: 4
◎ CAN signal interface: 2 (optional)
◎ Explosion-proof type: mine intrinsically safe type (explosion-proof mark: Exib I Mb)

KJ370-F（B）Intrinsically Safe Sub-station for Coal Mines

Application:

KJ370-F (B) Intrinsically Safe Sub-station for Coal Mines (referred to as sub-station) is the key component of coal mine safety production monitoring system. It supports analog data sampling,digital data sampling, switching value sampling, transmission, storage control etc. The sub-station can interrupt the power and sound the alarm (sensor end) when the methane concentration is excessive.

Features:

◎ A 4.3" true color TFT LCD screen is used to display all monitoring channel information at the same time.
◎ The built-in intelligent sensor analysis function supports automatic diagnosis, automatic calibration and intelligent analysis of intelligent sensors.
◎ Integrated network switch supports network cascading, automatic topology, automatic discovery and direct communication between sub-stations;
◎ Supports remote power interrupt;
◎ The sub-station can transmit the measured parameters and working status of each sensor to the ground central station in real time;
◎ The sub-station can transmit the measured parameters and working status of each sensor to the ground central station in real time;
◎ The sub-station has the function of initialization parameter setting and power failure protection。

Technical parameters:

◎ Power supply:
rated operational voltage 12 V DC, fluctuation allowance (9~24) V DC;
◎ Input signal type
1. Analog：（200~1000)Hz
2. Digital：RS485 main line
3.Switching：1mA/5mA of switch signal
◎ Control output
1. Signal level: ≥9V at high. ≤0.5V at low
2. RS485, baud rate: 2400bps (1200 bps, 2400 bps, 4800 bps, 9600 bps)
◎ Working voltage signal peak: ≤5V

KDW1140/24B Flame-proof and Intrinsically Safe DC Stabilized Power Supply for Coal Mines

Application:

KDW1140/24B Flame-Proof and Intrinsically Safe Dc Stabilized Power Supply for Coal Mines (hereinafter referred to as power supply) is a class ib power supply which mainly supplies power to underground sub-stations and sensors. The power supply has multiple outputs and is completely isolated. Each power supply has overvoltage, overcurrent, and short circuit protection. The backup battery uses an environmentally friendly nickel-hydrogen battery pack.

Features:

- The power supply has overvoltage, overcurrent, and short circuit protection, as well as automatic recovery after the fault is removed
- The backup power supply has the functions of overcharge, over-discharge, over-temperature, and short circuit protection. It can work continuously for more than 4 hours under full load in case of AC power failure.
- The power supply can remotely charge, discharge, and maintain the backup power supply. Maintenance personnel can remotely force battery discharge and AC power recovery through the computer at the ground station.
- The power supply has the functions of uploading information such as AC and DC status, battery remaining and voltage of backup power supply. The information can be uploaded to the sub-station and displayed.

Technical parameters:

- AC input:
  - Rated input voltage: 127V/220V/380V/660V/1140V AC
  - Frequency: 50 Hz
  - Harmonic: <10%
  - Allowed deviation: -25%~+10%
  - Input power: ≤180 W
- DC output:
  - 24V output: rated output voltage: 24.5V; rated output current: 470 mA; output lines: 4
  - 12V output: rated output voltage: 12.5V; rated output current: 1.6A; output line: 1
  - 18V output: rated output voltage: 18.5V; rated output current: 800mA; output line: 4
- Backup power supply:
  - Switch-over time: ≤100ms
  - Battery maximum charging current: 1000mA
  - Battery over-discharge level: 21V
- Explosion-proof type:
  - mining intrinsically safe (Ex-mark: Exd[ib] | Mb)

KJJ12 Intrinsically Mining Safe Ethernet Exchange Equipment

Application:

KJJ12 Intrinsically Mining Safe Ethernet Exchange Equipment is specially designed for IoT system of industrial-grade network. It is the key element of network transmission system in our mining IoT system. The equipment severs as an interconnection point between the underground equipment and the sever. It can either be used as the main net controller or branch network switch equipment.

Features:

- IEEE802.3 protocol, fiber optical port and ethernet port
- RS485 communication protocol
- Bidirectional circle redundancy network
- Power interrupt protection function
- Network management, SNMP/VLAN and traffic control function
- Self-diagnosis and error indication function

Technical parameters:

- Power supply
  - Working voltage: DC12V (intrinsically safe power supply)
  - Working current: ≤1A
- Gigabit optical signal interface
  - Number of interfaces: 3 (2 optical modules as standard)
  - Transmission mode: 1310nm single-mode optical fiber transmission
  - Connection: LC
  - Transmission rate: 1000Mbps
  - Optical transmission power: ≥-10dBm
  - Light reception sensitivity: -36dBm
  - Maximum transmission distance: 10km
- 100 Gigabit optical signal interface
  - Number of interfaces: 4
  - Transmission mode: 1310nm single-mode optical fiber transmission
  - Connection mode: SC
  - Transmission rate: 100Mbps
  - Optical transmission power: ≥-10dBm
  - Light reception sensitivity: -36dBm
  - Maximum transmission distance: 20km
- Ethernet electrical signal interface
  - Number of interfaces: 4/5 (1 shared with RS485 interface)
  - Transmission mode: full-duplex TCP/IP protocol
  - Transmission rate: 10/100Mbps adaptive
  - Signal working voltage peak-to-peak: 1V~5V
  - Transmission distance: 100m
- RS485 signal interface
  - Number of interfaces: 1
  - Transmission mode: half-duplex, bipolar
  - Transfer rate: 2400bps (configurable)
  - Signal working voltage peak-to-peak: 5V~15V
  - Signal operating current peak-to-peak: ≤100mA
  - Maximum transmission distance: 10km
- Intrinsically safe parameters
  - Intrinsic safety parameters: Ui=12.9V; Ii=1.25A;
  - Ci=14.4uF; Li=4.7uH

Ex mark: Exib I Mb

CD9 Multi-parameter Tester

Application:

CD9 Multi-Parameter Tester is a portable multi-function gas measuring instrument that can simultaneously detect combustible gases, toxic and harmful gases, and environmental pollutants, and can be widely used in the fields of mining, environmental protection, chemistry, public utilities, petrochemical, and civil engineering.

Features:

- **Powerful functions**
  - It can monitor the concentration of 16 gas types
  - It has real-time measurement, curve monitoring, data storage, download and data management functions
  - Both diffusive sampling and pumping sampling are supported
  - It is powered by rechargeable lithium batteries and runs for no less than 24 hours continuously
- **Strong performance**
  - The newly designed sampling structure guarantees the rapid response of the instrument
  - The new flexible sensor conditioning module provides superior stability and accuracy for the sensor
  - The tester housing is made of impact-resistant composite material, which can resist electrostatic interference, with the degree of protection of IP67
- **Ease of use**
  - It has high decibel sound and high brightness light alarm
  - Large colored display for texts and charts
  - Clearly display data in low/high lighting environment
  - Optional data management PC software

Technical parameters:

- CH_4: (0~5)% VOL resolution 0.01%
- O_2: (0~30)% VOL resolution 0.1%
- CO: (0~1500) ppm resolution 1ppm
- NO_2: (0~150) ppm resolution 0.1ppm
- HS: (0~500) ppm resolution 0.1ppm
- SO_2: (0~150)ppm resolution 0.1ppm
- Temperature: (-10~60) ℃ resolution 0.1℃
- Humidity: (0~100)% RH resolution 1%RH
- Pressure difference: (0~100) kPa resolution 0.1 kPa


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矿用产品安全标志证书
SAFETY CERTIFICATE OF APPROVAL FOR MINING PRODUCTS

KDG1140(A) Intrinsically Mining Safe Power Supply Feedback and Remote Interrupt Regulator

Application:

KDG1140(A) Intrinsically Mining Safe Power Supply Feedback and Remote Interrupt Regulator is an IoT component for monitoring the power status of underground mine equipment and execute power interrupt control.

Features:

- NC/NO configuration supported
- AC/DC output control signal supported
- Both contact and non-contact power feedback configuration supported
- Equipment power supply feedback monitoring and power interrupt status indication with display and RS485 signal output


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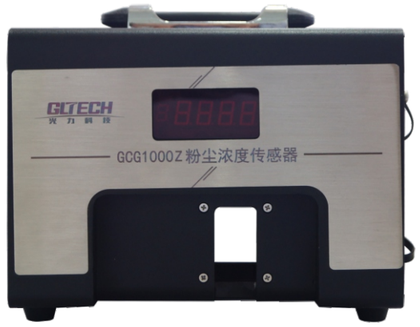
Technical parameters:

- Power rating：9~25 V DC ≤80mA @18V DC
- Singal output：RS485
- Transmission distance (regulator to equipment)：≥ 4 km
- Control signal distance (control to regulator)：≥ 100m
- Power feedback function：
- Contact feedback power supply range：(127~660) V AC (±10%)
- Non-contact feedback resistance: Open ≥90kΩ, Close ≤250Ω
- Power interrupt function：Switchable power interrupt mode
- Explosion-proof type：Mining intrinsically safe (Ex-mark: Exia I Ma)

Dust Monitoring and Treatment

GCG1000Z Dust Concentration Meter



Application:

GCG1000Z dust concentration sensor is designed in accordance with the most advanced laser principle, and it adopts a revolutionary open structure to fundamentally avoid the problem of dust accumulation. The sensor integrates a photoelectric detection system, a display system, a self-calibration system, a processor system and a self-cleaning mechanism to measure the dust concentration online and in real time. It has such intelligent functions as automatic calibration, automatic cleaning and maintenance reminder, suitable for online monitoring of dust concentration in dusty environments such as underground coal mines, other mines, and workshops.

Features:

- Using an open cavity structure. The dust-containing air flow can be measured without entering the inside of the instrument, which solves the problem of dust accumulation and reduces the workload of maintenance.
- Sampling by natural air flow, and no built-in sampling pump is required.
- Having intelligent functions such as zero-point self-correction, self-cleaning and maintenance reminder.
- Low-power design to meet the needs of long-distance deployment.

Technical parameters:

- Measuring Range: (0.00~1000) mg/m^3
- Measuring Accuracy: ±10%
- Signal Output Mode:

a) Frequency: (200~1000) Hz
b) Serial: RS485
c) Logical: 0V/5V
d) Analog: (1~5)mA, (4~20)mA, or (0~40)mA (customization needed)

- Operation Voltage: (9~24)V DC (Intrinsically safe power supply)
- Explosion-proof type: mining intrinsically safe (Ex-mark: Exia I Ma)
- Protection Class: IP65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CCF-7000Direct Reading Dust Concentration Meter

Application:

CCF-7000 Direct Reading Dust Concentration Meter employs the principle of laser measurement. It uses diffusive sampling and real-time measuring method instead of membrane sampling. It is environmentally friendly, safe, timely, and convenient.

Features:

- Innovative laser measuring method guarantees safety, accuracy, precision and environmental protection
- Real-time measurement, no need of membrane sampling, measuring time is less than 30 seconds
- It has self-referencing and self-calibration function
- Light and portable
- It can save up to 1000 pieces of data and upload the data to computer for analysis

Technical parameters:

- Measuring range: (0.01~7000) mg/m^3
- Relative measuring deviation: ±15%

Resolution: 0.01 mg/m^3

- Explosion-proof type: mining intrinsically safe (Ex-mark: Exia | Ma)
- Protection class: IP65
- Power supply: integrated lithium battery lasting 12 hours (working condition)
- Size: 48mm x 380mm
- Weight: ⩽1kg


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