TELZAS
ETC GROUP

PI1

Sites Supervision Controller

Destination:

Site Supervision Controller is a universal controller for monitoring the status, data acquisition, control of devices and visualisation of statuses.

Application:

Systems of control and alarm signalisation in such branches as:

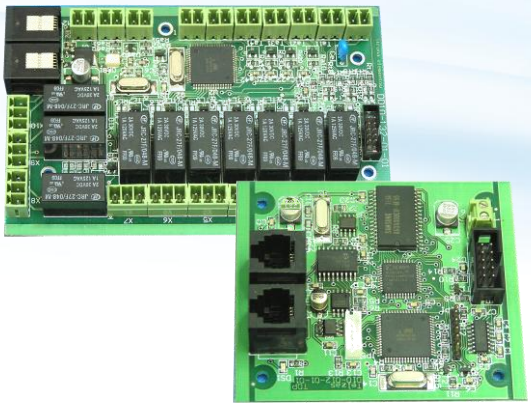
+ telecommunication;
+ power engineering;
+ industry.

Description:

Universal PI1 Site Supervision Controller is made of numerous equivalent modules connected with internal CAN bus. Set of modules is dependent on anticipated configuration of the monitoring system. Adding new functions of the controller is done by adding additional functional modules. Connection of additional modules may be done in Plug&Play mode. Using PI1 enables functional scalability, what enables cost scalability in turn. Distributed construction of the controller improves the possibilities and reduces costs of monitoring of big locations.

Fulfilled measurements and status control:

+ temperature measurement using the sensor;
+ voltage management 0…5V DC;
+ voltage management -5…5V DC;
+ voltage management 0…75V DC;
+ current measurement using the shunt;
+ current measurement using the converter;
+ voltage measurement 230V AC (1 or 3 phase);
+ current measurement of the circuit 230V AC (1 or 3 phase);
+ frequency measurement of AC voltage;
+ counting impulses in digital input;
+ status monitoring of digital inputs with galvanic insulation;
+ status monitoring of digital inputs without insulation.



Control:

+ control of monostable and bistable contactor;
+ monostable and bistable digital outputs;
+ PWM output;
+ continuous regulation.

Alarming:

+ control of external alarms by digital outputs;
+ mapping the alarm to contact of the relay, entry to the history or sending to supervisory centre;
+ doubling alarm signals and transmitting them to two independent outputs
+ defining type of alarm, both input and output one – potential-free inputs and outputs with NO / NC definition for every alarm;
+ defining time of delay for every alarm.

Data registration:

+ history of events up to 100 000 records;
+ real-time clock RTC with back-up;
+ averaging parameters in specified time;
+ registration in programmed time maximal and minimal measured values;
+ creating daily profiles in relation to defined period of time.

Status visualisation:

+ OLED display (128x128, 64 000 colours);
+ visualisation panel 32xLED;
+ 8xLED panel.

Specialist functions:

+ communication with rectifiers (control of charging voltage, monitoring of alarms of rectifiers, monitoring of quantity of rectifiers, readout of rectifiers current, etc.);
+ rectifiers power management;
+ supervised charging of batteries with separated rectifiers;
+ limitation of battery charging current;
+ float, automatic or equalizing charging mode;
+ temperature compensation of output voltage;
+ battery asymmetry voltage measurement;
+ LVD control;
+ load & battery fuses/MCBs blow-out signalling;
+ ventilators alarm monitoring (total);
+ control of ventilators;
+ battery disposition test;
+ operation with generator mode;
+ management of battery charging current limitation.

Sensors/probes:

+ temperature probe;
+ humidity probe;
+ anti-fire sensor;
+ water sensor;
+ movement sensor;
+ smoke detector;
+ air-flow sensor.

Interfaces:

+ CAN;
+ RS-232;
+ RS-485;
+ I2C – (IIC).

Served protocols:

+ MODBUS;
+ IEC 62056 (DLMS);
+ Specific protocols CAN;
+ Specific protocols RS-232CAN.

Local management:

+ User's module – OLED display and rotary manipulator. Access limited by the password.
+ PIK – Specialist application for configuration and monitoring of system's operation. The application is equipped with GUI and operates with Windows XP/VISTA/7. The application also enables updating the software (firmware) of the controller's modules. Access limited by the password.

Local management interfaces:

+ RS-232;
+ USB.

Remote management:

+ WinCN/WinCN NG;
+ SNMP Manager type systems (many providers);
+ Management through WWW website.

Remote management interfaces:

+ Ethernet;
+ GSM/GPRS;
+ Wi-Fi (802.11b/g);
+ Analogue modem (POTS);
+ ISDN modem.

Communication protocols:

+ PI1-CN (internal Pi1 protocol);
+ SNMP;
+ HTTP.

Scalability:

+ up to 32 modules in one installation;
+ up to 4000 signals in one installation.

Mounting method:

+ 19" 1U casing with a possibility of hanging;
+ wall-mounted casing;
+ TS bus.

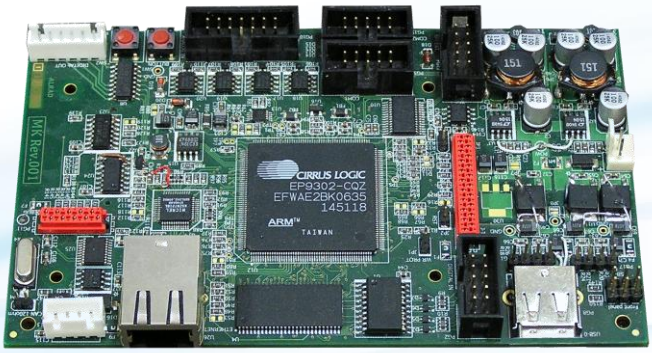
Power supply:

+ 48V DC (basic);
+ 230V AC (option);
+ 24V DC (option);
+ 12V DC (option);
+ 220V DC (option);
+ Batter back-up (option).

Benefits:

Using PI1 Sites Supervision Controller to fulfil the monitoring system gives the following benefits:

+ the cost is dependent on real needs of measurements, monitoring and functionality;
+ distributed construction enables cheaper and quicker fulfilment of extensive locations;
+ possibility of extension of the system by additional measurements or functions in the future;
+ easy service with a possibility of replacement of faulty modules;
+ possibility of using different media of data transfer.



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