PEP ARAB

Control Systems

DESIGN FOR THE FUTURE

It's about more than technology
It's about sustaining technology over future

What Part do you play ?
Selecting the latest technology is only part of the answer. PEP ARAB Control Systems helps you bridge gap between legacy and leading edge – obsolescence and sustainability. Our automation team of experts work to protect your investment . PEP ARAB provides comprehensive supply chain, and integration systems & services .
Strategic product intelligence and design support for all your mission critical projects and applications .
Developing reliable, sustainable solutions from the strength and scale of a trusted industry – that's our part .

PEP ARAB Modular Computers®

Control Systems®

Products

PEP ARAB

SMART1 I/O CPU

The SMART I/O is designed around Motorola's MC68302 CPU with two on-chip processors. One is the 20MHz industry standard 68HC000, while the second is a communications oriented RISC processor. Fieldbus protocols use the power of this RISC CPU, freeing the 68HC000 for application tasks. In addition, the 68302 includes an SIB (System Integration Block), consisting of 3 serial channels, 3 timers and an interrupt controller.

SMART2 I/O CPU

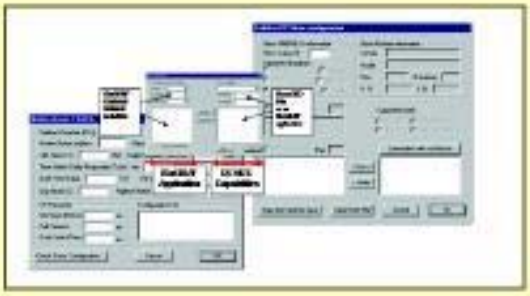
A SMART2 system comprises up to five SMART2 BASE units depending on the application requirements. Designed as an expandable concept, up to 4 base units, each containing three SMART-Module I/O slots can be accommodated on the DIN-rail beside the first or master base unit. Each SMART2-BASE, equipped with 3 slots, automatically routes the internal I/O-bus and power supply lines to the next base unit. Thus, the complete micro controller can be easily tailored and configured to accept all needed I/O-modules. The SMART2-BASE recognizes if a CPU module is plugged into the first slot of the first unit and if so, performs the role of system master. The process interface of each slot is composed of two pluggable screw terminal blocks for simple wiring and service.

Programming

The SMART I/O families are PLCs as well as micro industrial computers in one compact enclosure. The concept meets the needs of both worlds: The PLC user can take advantage of the dedicated CASE-Tool, ISaGRAF, which supports all five of the listed IEC1131-3 programming languages including ANSI C. The system integrators also benefit through the ability of the SMART I/O systems to be programmed directly in ANSI C. Either way, by utilizing the sophisticated features of the real-time operating system, OS-9, these PLCs can be easily transformed into high- performance industrial computers. The SM-RS232 provides serial communication observing a true RS232 interface.

ISAGRAF Programming Language

ISAGRAF features



* ISaGRAF is the number one soft - logic package control.
- Programming.
- IEC 1131-3.
- Support all of the five IEC 1131-3 language.

More reliable for different types of control applications.

* The workbench is available for Windows 3.1, Windows 95, Windows 98, Windows NT and Windows XP platforms and includes an intelligent graphic and text editor.
* The easy - to - use simulation and project man agreement functions of the workbench.
* Easy - to - use and without the need of extra training.

SYSTEMS

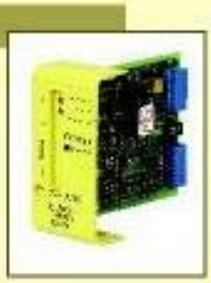
PEP as a leading edge company concerned to introduce a remarkable , cost effective , extremely reliable & high efficient , different systems .We offer wide range of solutions based on international standards for process control and industrial automation . All of our systems (PLC , DCS , SCADA , Telemetry , ESD,...etc.) enjoy very important set of features . From the cost efficient Smart I/O family to the powerful VME9000 , PEP provides a modular solutions for soft PLC , DCS , SCADA which can be adapted to any types of application. This unique structure allows putting a lot of intelligence in the system , without any limitation in term of CPU computing power or memory size and type. To ensure the best reliability even in harsh environment all PEP systems are also available in with rugged option , extended temperature range (-40°/+85°) and conformal coating . All pieces of hardware have been designed with a strict respect of the PEP standard quality rules .

Products / Hardware
I/O Modules

SM-DIN1:

* 8 optoisolated 24V DC digital inputs
* 6 independent groups
* Common GND
* Overvoltage protection
* LED channel status indication

SM-ADC1:

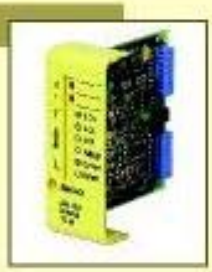


* 6 differential & optoisolated inputs
* ±10V DC or 0..20mA input range
* 12-bit ADC with 1-bit non-linearity
* 50?s conversion time Overvoltage protection
* 2 user configurable LEDs

SM-DOUT1:

* 8 optoisolated 24V DC digital outputs
* 2 independent groups
* Common Vcc (high-side switch)
* 500mA continuous output current
* Overvoltage protection
* Inductive load protection
* LED channel status indication

SM-DAC1:



* E 2/6 differential & optoisolated analog outputs
* ±10V DC or 0..20mA output range
* 12-bit DAC with 1-bit non-linearity
* 11-bit repeating accuracy
* 2 user configurable LEDs

SM-REL1:

* 6 normally open relay contacts
* 250V AC / 220V DC switching voltage
* 2A maximum switching current
* Surge protection
* LED relay status indication

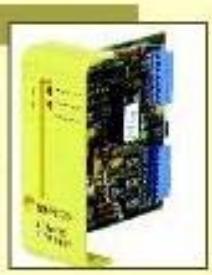
SM-THERM:

* 4 thermocouple input groups
* One, 2-wire PT100 input for cold-junction
* Open sensor detection
* Self calibration (on-board EEPROM)
* Overvoltage protection
* 2 user configurable LEDs

SM-COUNT1 & SM-*COUNT2*:

* 24-bit counter (SM-COUNT1)
* 16/32-bit count-up (SM-COUNT2)
* 3 differential optoisolated inputs
* ±5V,±12V,±24V DC input range
* 300 kHz input filter
* LED status indicators

SM-PT100:



* 2, 3 or 4-wire PT100 sensor inputs
* Open sensor detection
* Self calibration (on-board EEPROM)
* Overvoltage protection
* 2 user configurable LEDs
* That ensures an absolute measurement accuracy of 0.2 0C

Programming : The whole PEP systems could be programmed using the world wide No 1 programming language ISaGRAF® based on IEC61131-3 standard , the ISaGRAF® package support 5 different languages (FB,LD,IL,ST,FSC) .

Integrated Tools : PEP provides additional tools to fulfil all typical industrial application needs , especially for embedded systems .ISaTERM , the unique entry point to update and customize your system, without any computer science knowledge requirement.

Connectivity : PEP systems are designed for being integrated into different architectures (PLC ,DCS ,SCADA) . Thanks to extensive Field bus support (PROFIBUS , CAN BUS , ETHERNET...etc) and universal connectivity link given through the OPC server ,we provide the ISaGRAF OPC universal server allowing to establish a link between any MS-Windows application OPC compliant through a TCP/IP link , ISaGRAF OPC server provides a real time interface between field devices and OPC clients.Thus , our systems are the right choice for 21st century .