# S81-U1002-1

CPU Card

This card is the system's central unit and contains the micro-controller, which processes all the information provided by the other cards of the panel.

In addition to the micro-controller, the card has a flash memory, a buffered static RAM, a watchdog circuit and an Ethernet controller with an RJ 45 Ethernet output connector.

Main Characteristics
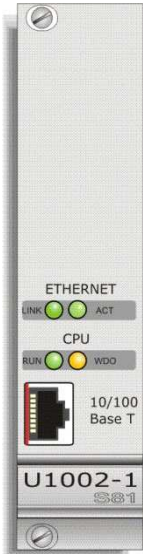
- Can be hot-swapped
- Suitable for applications fault-tolerant up to SIL3 level in accordance with IEC-61508
- Designed to operate in parallel (redundancy)
- Automatic set once the second CPU has been put in
- Micro-controller 25 MHz Renesas (HITACHI) H8-2318
- 4-MB(512K X8) buffered static RAM with lithium battery
- 2-MB expandable flash memory
- Ethernet 10/100 link via RJ 45
- Watchdog external to CPU, for software functional cycle monitoring
- Fault self-check on the hardware
- Built-in clock
- Internal CPLD dedicated to the communication management
- Operating system residing in internal flash memory
- On-line transfer of configuration program
- Front plug-in, with locking screws

Status	LEDs			
	LINK	ACT	RUN	WDO
Linked to LAN	⊗	–	–	–
Communicating	⊗	∅	–	–
CPU active in primary mode			⊗	
CPU active in secondary mode	⊗	–	∅	–
CPU blocked	–	–	–	⊗
Legend	∅ = blinking	⊗ = on		- = off

Operation

The CPU card can be used in either single or redundant configuration with two CPU's operating in parallel. Both CPU's process information from the cards of the panel, but only one (the primary) of the two interacts with them. Once the primary CPU stops operating, the other immediately takes its place without disrupting ongoing operations or losing captured events.

Communication

Thanks to the RJ 45 port located on the CPU, more S81 multifunction panels can be connected to each other or to a supervising PC, via LAN. The panel's interconnection serves to transfer events or information between them. The connection with the supervisor PC allows you to manage the panel from a remote location.