AL-2005

Real Time Multitasking Processor

1. Description

The AL-2005/RTMP (Real-Time Multitasking Processor) is a coprocessor for AL-2002 CPUs. It runs main CPU dependent or independent programs. Those programs could be:
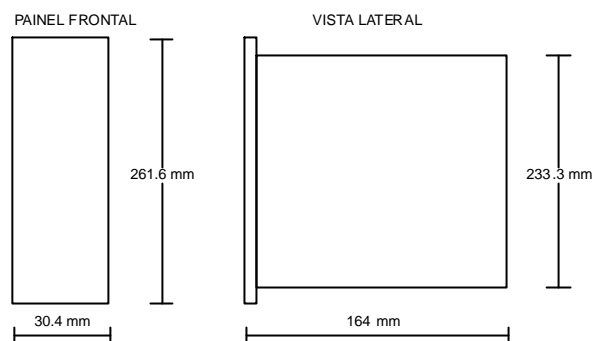
■ Communication protocols (Modbus, Profibus, etc.)

■ Complex control function (example: adaptive PIDs)

■ Parallel processing with main CPU when application needs high processing power

The AL-2005/RTMP uses a preemptive multitask operational system. So it can runs several different applications at same time.

It can have serial communication cards (AL-2405): RS-232C, RS-485 and other

The AL-2005/RTMP is based on 16 bits Intel 80C186. This processor has high integration of hardware resources and is dedicated to industrial applications. The instructions code is compatible with IBM PC based computers (80386, 80486, etc.)

2. Specifications

2.1. General

■ Processor 80C186 20 MHz 16 bits

■ Flash Eprom Memory for programs: 256 Kb (64 Kb by BIOS)

■ Memory RAM: 256 Kb
■ Program load by serial port from IBM PC compatibles

■ Data transfer rate with AL-2002 CPU: better than 1 Mbyte/s

■ 4 LEDs status indication

■ Operation temperature: 0 a 60 °C
     exceed IEC 1131

■ Stocking temperature: -25 a 70 °C
     based on IEC 1131

■ Operation humidity: 5 a 95% without condensation
     based on IEC 1131 level RH2

■ Mechanical protection: IP 30 (tools access, no protection for water drops), installation in AL-3630 or equivalent
     based on IEC Pub. 144 (1963)

■ MTBF: 40000 hours @ 40 °C
     based on MIL-HDBK-217E

■ Weight:
     net: 500 g
     packed: 700 g

2.2. Electrical

■ Power requests:
     1250 mA @ 5 VDC

■ Electrostatic Surge Discharge:
     based on IEC 1131 level 3

■ Electrical noise immunity (oscillating wave):
     based on IEC1131, level A and IEEE C37.90.1 (SWC)

■ Protection against electrical shock:
     based on IEC-536 (1976), class I, when installed in AL-2610 or AL-2611

3. Physical Dimensions

PAINEL FRONTAL   VISTA LATERAL

261.6 mm

233.3 mm

30.4 mm

164 mm