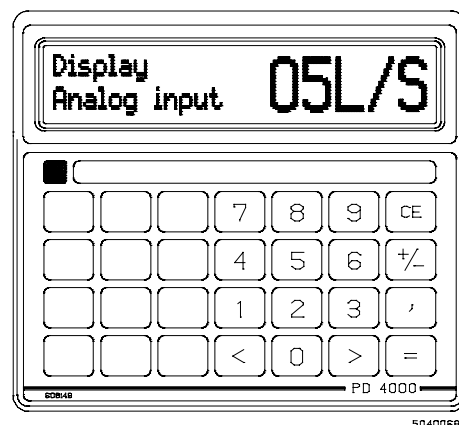


PD 4000 P-NET CONTROLLER

FEATURES

- * 16 Bit Microprocessor
- * Programmed in High Level Multi Tasking Language
- * Completely Sealed Construction
- * Large Data Storage Capacity
- * Membrane click-switch Keyboard
- * Backlit Graphics LCD Display
- * User Definable Overlay
- * P-NET Fieldbus Communication
- * Battery Back-up
- * Real Time Clock



APPLICATION

The PD 4000 is designed as a control computing and display element in both highly complex or simple process control systems. It is used in conjunction with the collection of distributed input/output and control modules, which provide digital, analog, flow and weighing facilities, via the fieldbus called P-NET. The Controller is completely sealed, and is therefore suitable for use in any industrial environment. The compact design and the outstanding environmental specifications for the Controller, makes it exceptional for machines and mobile applications.

SYSTEM DESCRIPTION

Display

The display is a fast graphics LCD, using Supertwist technology, providing wide viewing angle. The display has a resolution of 150 by 20 pixels, enabling a variety of character fonts and graphics to be used, e.g. 3 lines with 25 characters each. The viewing area is 120mm * 19.2mm. A LED backlight is incorporated. The display is covered by non-reflecting glass.

Keyboard

The keyboard is a membrane click-switch foil, with metal domes. The keyboard has 28 available keys. The key functions depend upon the type of application, and may be defined by the user program. The unique design includes a self adhesive keyboard foil, which provides the ability to customise the unit, and ensures an ideal operator/instrumentation interface.

Microprocessor

The Controller utilizes a 16 bit HC 68001 microprocessor with a clock frequency of 9.8MHz, giving it exceptional power and memory addressing capability.

Memory

The program memory is a flash EPROM of 128K bytes (128K x 8), optional 256K bytes, and a 64K bytes boot EPROM. The data memory is CMOS RAM 128K bytes (128K x 8) with battery back-up, optional 512K bytes. In case of power failure, the Controller will save the current program state. When power is restored, control will either continue from the failure point, or reset, depending on instruction.

Real Time Clock

The Controller is equipped with a real time clock with battery back-up. It is configured for 24 hour format and enables the display or recording of real time, in seconds, minutes, hours, days, months and years.

Programming

The Controller is programmed in Process-Pascal, which is a multi-tasking high level language developed especially for the programming of process control activities, which utilize P-NET distributed interface modules. Process-Pascal is an extension of standard PASCAL. The compiled program is downloaded to the flash EPROM in the Controller via the P-NET interface. The powerful nature of the compiler enables a system designer to write independent processes as separate, testable tasks, and to define process elements, such as valves, sensors, keyboards and displays as named program variables. This makes it particularly easy to design control programs, which can also incorporate system instrumentation requirements.

Communication Interface

The Controller has a P-NET multi-master interface. P-NET is a RS-485 Serial interface used for communicating with P-NET interface modules with a transmission speed of 76,800 baud.

Mechanical construction

The Controller is manufactured in a black injection moulded plastic enclosure. The entire Controller is completely filled with silicone. This construction makes it extremely resistant to water, dust and vibrations.

SPECIFICATIONS

Power supply:

24V DC +/- 15 %, 2 watts

Operational Ambient Temperature:

-25 to +70 °C

Storage temperature:

-40 to +85 °C

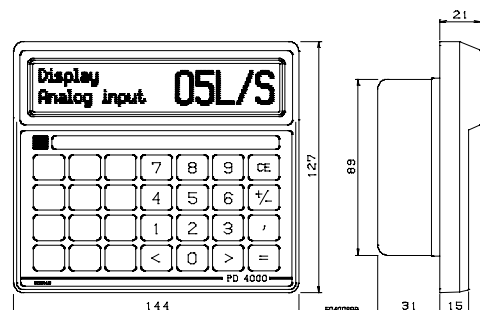
Sealing:

IP68 @ front panel mounting

Enclosure:

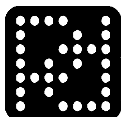
Black NORYL GFN

Scale Drawing (in mm)



Produced by:

Distributed by:



PROCES-DATA A/S

NAVERVEJ 8 - DK-8600 SILKEBORG
TEL. +45-87 200 300 - FAX +45-87 200 301