

MicroPAQ-940DC Analog Input Module



Analog Input Expansion for MicroPAQ-940P and ePAQ-9410/20/25

The MicroPAQ-940DC Analog Input Module is an I/O Expansion Module that is part of the QEI family of Distribution Automation Products.

It is a microprocessor based electrical assembly, providing analog measurement capability to the MicroPAQ-940P and ePAQ-9410/20/25 products. The MicroPAQ-940DC communicates with the MicroPAQ-940P and ePAQ-9410/20/25 via its on-board RS-422 interface.

Each MicroPAQ-940DC can accept up to 8 analog measurement inputs (+/- 5Vdc, 0-1mA, 4-20mA) from connected field devices. Inputs are via 5mm plug-in type terminal blocks. Each MicroPAQ-940DC Module is addressable via a bank of eight DIP Switches. Power input to the MicroPAQ-940DC is via pins on the RS-422 RJ45 jacks. Power is provided by the MicroPAQ-940P or ePAQ-9410/20/25 backbone port, or via a separate power supply. Input voltage is +24Vdc.

- **Din rail or panel mountable**
- **8 Analog Inputs**
- **Input Voltage: 24 VDC Nominal**
- **Input Scaling:**
DC : 0-1 mA, 4-20 mA,
5 Vdc / 10 Vdc full scale.

Can select input voltage
(5 vdc / 10 vdc) through PC.
- **Communications:**

Expansion Port: RS-422, using
two parallel RJ45 jacks for
communication pass-thru.

(The above expansion port
RJ45 jacks are pin compatible
with present ePAQ-9410/20 and
other Distributed I/O panels
such as AIM/SIM/COM/ROP.)

Analog Input Module



Analog Inputs MicroPAQ-940DC Analog Input module includes 8 Analog inputs available in two sections TB1 and TB2.

Input Scaling DC : +/- 0-1 mA, +/- 4-20 mA, +/- 5 Vdc, +/- 10 Vdc full scale.
Scaling resistors must be used to normalize loop currents to a voltage readable by the analog input module. For example, a 5K resistor in the +/-1 mA loop will produce +/-5Vdc. These will need to be high accuracy resistors (.05%), as the tolerance will influence the measurement accuracy.

Scan Rate 1 msec per point. Sequence-of-Events (SOE) capability available (SCADA protocol dependent)

Filtering Selectable 50/60 Hz via RS 232.

Isolation Inputs are isolated from logic circuits using optical -couplers and DC-DC Converters
Minimum 3KV RMS (Analog input to logic isolation)
SWC/fast transient – IEEE C. 37.90.1, IEEE Standard 1613-2009
Power line surge – IEC 1000-4-2
Electromagnetic emissions – FCC Part 15, Class B
Electromagnetic compatibility – ED 61000-4-3
Dielectric rating – 1000 Vdc, on all inputs
Overload rating 500 Vdc (common mode to ground)

Configuration ConfigWiz 2.0

Baud Rate 115.2 kbit

Ports 1 RS232 for Test Panel / Configuration.
1 TTL for DEBUG.

Power +24V DC in (+9 to +36 VDC)

LED Indicators Heartbeat and ON/ OFF.

Physical 5.5"H X 4 "W X 2"D

Environment -40° to +85°C, (-40° to 175°F) 0-95% humidity (non-condensing)

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