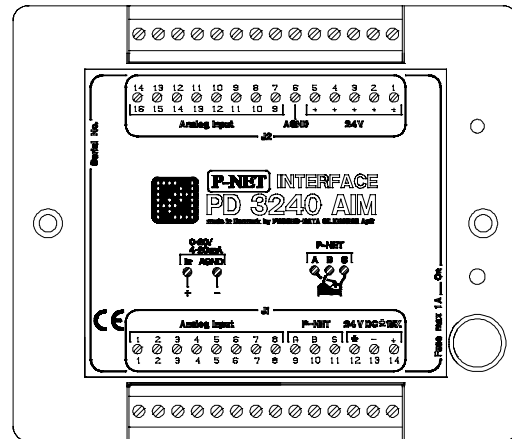


PD 3240 ANALOG INTERFACE MODULE

FEATURES

- 16 analog input channels.
- High resolution (14 bit)
- Current input (0-20 or 4-20 mA).
- Filtered input signals
- Suppression of 50 and 60Hz interference
- Limit switches for each channel
- Advanced self testing facility
- Overload protection
- P-NET Fieldbus communication
- Watchdog Timer
- Rail mounting module (DIN / EN)
- EMC approved (89/336/EEC)



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APPLICATION

The PD 3240 Analog Interface Module is one of a collection of distributed process control units, intended for use within the P-NET Fieldbus. It provides a versatile interface between measurement transducers generating analogue current signals, such as temperature transmitters, pressure, density and level sensors, flow meters, etc., and distributed master control computers.

PD 3240 provides internal conversion of measurement into any engineering unit representing the analog process being monitored and controlled, for direct interrogation by central control or any master unit connected to the P-NET Fieldbus system.

The compact design and the outstanding environmental specifications for the Analog Interface Module, makes it an ideal process component in industrial as well as other environments.

SYSTEM DESCRIPTION

The PD 3240 Analog Interface Module is an intelligent module, provided with 16 analog input channels for 0-20 mA or 4-20 mA and a communication interface for the P-NET Fieldbus.

The PD 3240 Analog Interface Module utilizes 4 analog to digital converters, using a fully integrating principle. Each measurement is integrated over a 100 ms period, which reduces noise influence and results in a very stable reading of the input signal. The input signals are galvanically separated from the power supply.

The unit offers comprehensive self-testing features, which enables reporting of disconnection, overload and process failure. All inputs are protected against overload. The selectable watchdog timer creates an internal error message during a communications or power failure.

An incorporate filtered power supply provides a high degree of interference suppression, allowing use of low grade power services. The DC supply may be used for powering external transducers.

The input signals are filtered, and suppressed against 50 and 60 Hz interference. An additional filter may be applied to the input signal. The filter time constant is configurable for each channel.

Each channel may be configured for input simulation. In this mode, no measurement value will be calculated, and it is possible for the user to insert any value in this register.

As a distributed module, the unit can be mounted close to the process. Data communications with Controllers are made with a single P-NET cable having a ring length of over 1 km. This reduces plant wiring costs to a minimum.

The module may be plugged directly onto a mounting rail (EN 50 022 / DIN 46277) in a panel configuration or in a box designed for the plant environment. The module may be removed for service without interference with operational activities on the rest of the network. 2 snap connectors provide the terminals for field connection, power and communication.

SPECIFICATIONS (all specifications are respected in the approved EMI conditions):

Analog input (0-20mA, 4-20mA):

Measurement error :

@ 0°C to 50°C max. ± 0.1 % of act. $\pm 2 \mu\text{A}$

@ -25°C to 70°C max. ± 0.3 % of act. $\pm 2 \mu\text{A}$

Resolution : $1 \mu\text{A}$

Repeatability : $\pm 2 \mu\text{A}$

Voltagedrop at 20 mA : max. 1.4 V

Current input measurement update time:

channel 1 - 4 enabled: 0.6 s

channel 1 - 8 enabled: 0.9 s

channel 1 - 12 enabled: 1.2 s

channel 1 - 16 enabled: 1.5 s

Power Supply:

Voltage: $24\text{V DC} \pm 15 \%$

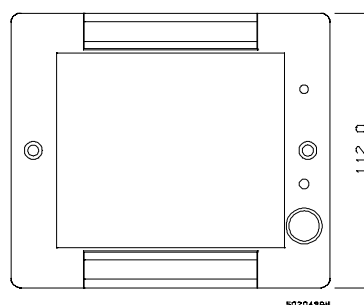
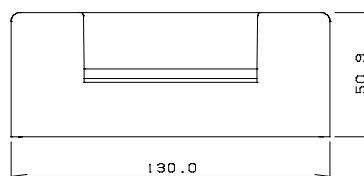
Consumption: max. 1.3 W

Ambient Temperature:

Operation: $-25 \text{ }^\circ\text{C}$ to $+70 \text{ }^\circ\text{C}$

Storage: $-40 \text{ }^\circ\text{C}$ to $+85 \text{ }^\circ\text{C}$

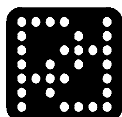
Scale Drawing (in mm)



PD 3240 is approved in compliance with the **EMC-directive no 89/336/EEC**. Test limits are determined by the generic standards **EN 50081-1** for emission and **PrEN 50082-2** for immunity. PD 3240 is approved in compliance with the **IEC 68-2-6 Test Fc** standard for vibration .

Produced by:

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