

Micronix PV-2019-A

12-bit Data acquisition module with Analogue and digital I/O's



Micronix PV-2019-A is a highly compact PC/104 board combining 8 voltage inputs with 12-bit resolution, 8 opto-isolated digital inputs and 8 opto-isolated digital outputs. Additionally, two 32-bit counters add to the versatility of the board. Micronix PV-2019-A is the ideal solution for data acquisition, machine and process control applications, combining multiple I/Os in very limited space.

Micronix PV-2019-A Features

- ◆ 12-bit resolution of A/D
- ◆ 8 analogue voltage inputs, single-ended
- ◆ 8 opto-isolated digital inputs
- ◆ 8 opto-isolated digital outputs
- ◆ 2 counter inputs, opto-isolated
- ◆ Drivers for Windows NT, 9X and Linux
- ◆ Low power
- ◆ Industrial grade temperature range (-20°C to +70°C)
- ◆ Low cost

Description

For low-cost applications where you still need state of the art performance, the Micronix PV2019-A is an obvious choice. The board is a microprocessor based auto calibrating system which needs no potentiometer adjustment. Thus it is ruggedized and resistant to vibrations in the industrial environment. It combines a high amount of I/O features in a single board and requires +5V only from the system power supply. It can be configured for 16 different I/O-addresses 200H - 338H. No other A/D board can match its combination of features and advanced technology at the very low price.

Rugged design for every industrial and mobile solution

Micronix PV-2019-A is designed with real-world applications in mind. The analogue inputs are protected against voltages up to $\pm 35V$, even with the power off. The digital outputs reset to 0 on power up or system reset to force the board into a known state and prevent undesirable system behaviour. The board's single-supply and low-power design minimises the cost of the system power supply. And perhaps best of all, Micronix PV-2019-A comes as standard in Industrial (-20-70° C) temperature ranges.

Micronix PV-2019 Specifications

Analogue voltage inputs

Number of channels:	8, single ended
Resolution	12 bits
Accuracy	0,25 %
Conversion time	22 μs typical
Ranges	0-1V, 0-2.5 V, 0-5 V or 0-10V
Max. input voltage	$\pm 35 V$
Input impedance	1 M Ω // 10pF

Digital inputs

Number of channels	8
Max. input voltage	$\pm 30 V$
Logic "1"	$U_{in} > \pm 10V$
Logic "0"	$U_{in} < \pm 1V$
Max. input current (mA)	$(U_{in} - 1.3)/10k\Omega$
Isolation voltage	1000 V rms

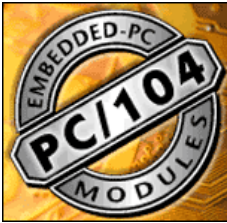
Digital outputs

Number of channels	8 (Open collector)
Max. output voltage	80 V
Max. output current (one ch.)	10 mA
Max. output current (all ch.)	10 mA/ch.
Isolation voltage	1000 Vrms

Counters

Number of channels	2
Counting frequency	10 kHz
Counting range	32-bit (0-4294967295)
Logic "1"	$U_{in} > \pm 10V$
Logic "0"	$U_{in} < \pm 1V$
Max. input current (mA)	$(U_{in} - 1.3)/10k\Omega$
Isolation voltage	1000 Vrms

Power consumption: 5V, 260mA (all outputs off) to 410mA (all outputs on).



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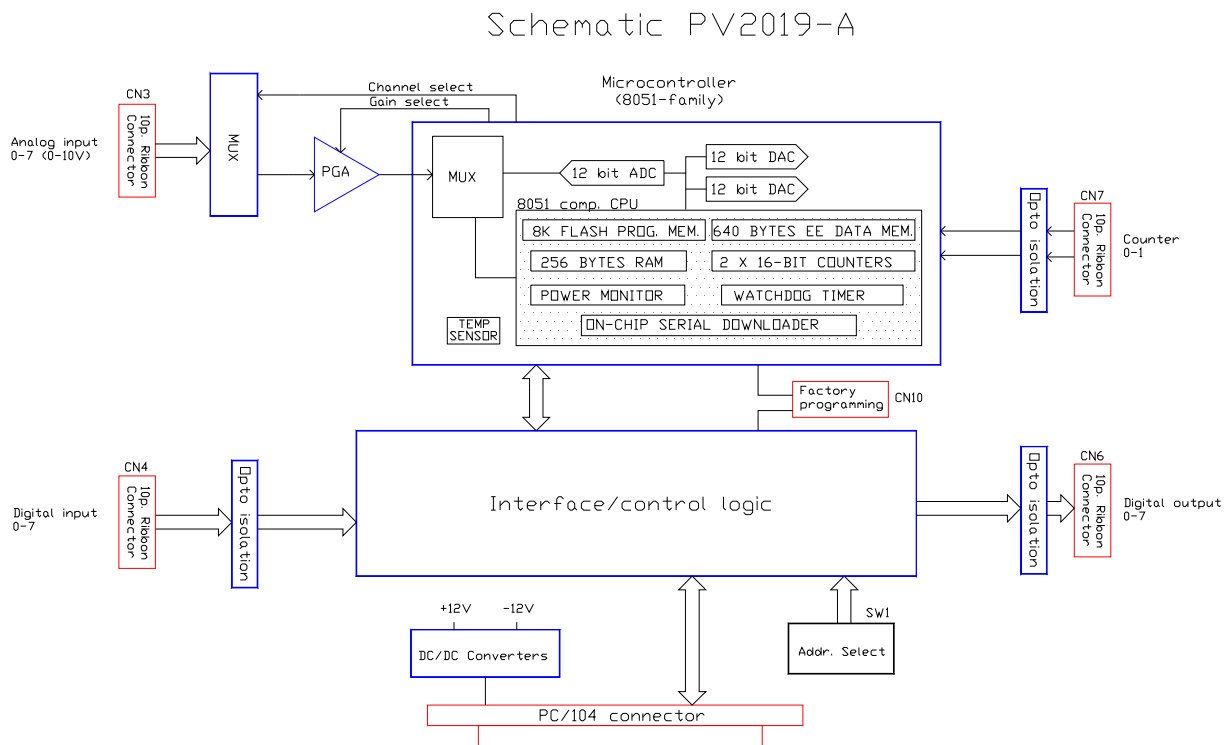
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Micronix PV-2019-A Specifications --- continued---

Environmental

Operating temperature	-20° to 70 °C	Dimensions	96x90x15mm
Storage temperature	-40° to 85 °C	Weight (g)	95 g
Humidity	0 to 90% non-condensing		

Drawing:



Ordering codes

Model no.	Description
PV-2019A	PC/104 board with 8 AI, 8 DI, 8 DO and 2 Counter inputs
PV-2019A-S	PV-2019-A with stack-through connector

Cables

CDB-9F	Ribbon cable with DB-9 connector (F) for PV-2019, 30 cm
CDB-9-2019A	Cable-kit for PV-2019 with DB-connectors: 4 cables with DB-9 connectors (F)



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