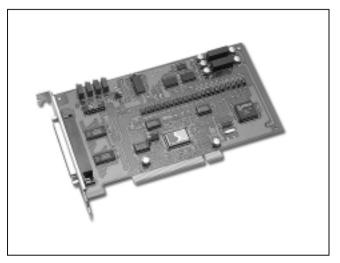


PISO-813

32-Channel Single-Ended Isolated Analog Input Board



# **Functional Description**

The PISO-813 is a bus-type isolated 12-bit A/D board for the PCI bus for IBM or compatible PC. It features a 10KHz data acquisition under DOS and Windows. The PISO-813 provides 32 single-ended analog input. The isolation range of PISO-813 is increased to 3000 V. It is the most cost-effective isolated A/D board for the PCI Bus in the world. The PISO-813 has one 37-pin D-sub connector. It can be installed in a 5V PCI slot and can support truly " Plug & Play "

#### **Features**

- PCI Bus
- 32 single-ended analog input channels
- 12-bit A/D converter
- 3,000Vdc photo-isolation protection
- Analog input range Bipolar: +/-10V,+/-5V,+/-2.5V,+/-1.25V,+/-0.625V Unipolar: 0-10V,0-5V,0-2.5V,0-1.25V
- Programmable gain control: 1, 2, 4, 8, 16
- 3000V DC/DC converter built-in
- A/D trigger mode: software trigger
- A/D data transfer mode: polling

### **Applications**

- Data acquisition
- Harsh environment operation
- Signal isolation

#### **Specifications**

- Channels: 32 single-ended
- Resolution: 12 bits
- Conversion rate: 10KS/s (max.)
- Input impedance: 10MΩ
- Overvoltage protection: +/-35V
- Accuracy: 0.01% of reading +/- 1 bit
- Linearity: +/- 1 bit
- On chip sample & hold

- Zero drift: +/-25ppm/°C of FS max.
- Power consumption: +5V / 860mA

#### **Environmental**

- Operating Temperature: 0 to 50°C
- Storage Temp.: -20°C to 70 °C
- Humidity: 0 to 90 % non-condensing
- Dimension: 180 mm x 105 mm

#### **Software**

- PISO-813 Development Toolkit for DOS
- PISO-813 Development Toolkit for Win95
- PISO-813 Development Toolkit for WinNT

#### **Order Description**

- PISO-813: 32 channel isolated analog input board
- PISO-813/S: PISO-813 with DB-8325

### **Options**

- DB-8325: Daughter board with signal conditioning circuitry
- DB-37: Directly connect signals to the back of PISO-813
- DN-37: I/O connector block with DIN-rail mounting and 37-pin D-Sub connector on it
- PISO-813 LabVIEW Development Toolkit for Win95
- PISO-813 LabVIEW Development Toolkit for WinNT

# Pin Assignment

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	~ 4	<b>- - 1</b>	/	•	١	19	A.GND
AI_	-	37	•			18	AI 30
AI_		36	•			17	AI 28
AI_	-	35	•			16	AI 26
AI_	-	34	•			15	AI 24
AI_	-	33	•			14	AI 22
AI_	_21	32	•			13	AI 20
AI_	_19	31				12	AI 18
AI_	17	30	•			11	AI 16
A.C	SND	29	•			10	A.GND
A.0	GND	28	۲			09	A.GND
AI_	15	27	ŏ			08	AL 14
AI_	13	26	•	•		07	AL 12
AI	11	25		•		06	AI 10
A	9	24	•	•		05	AL 8
A	7	23	•	•		03	AL 6
A	5	22	•	•		03	AL 4
A	-	21	Ŏ	•			_
AĨ		20				02	AI_2
		1.1	$\overline{\ }$		J	01	AI_0
					/		

Note: Al-n: Analog Input Channel A.GND: Analog Ground