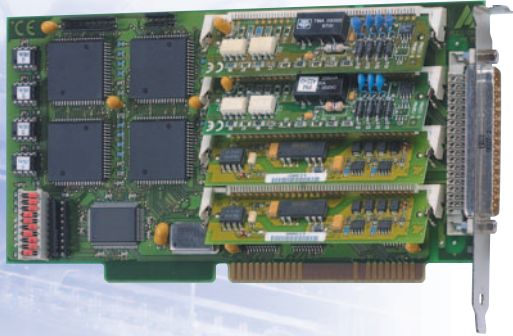


# 4-port serial interface, modular, with/without optical isolation



The PA 7500 is a 4-port serial interface configured by inserting SI modules which the board identifies automatically.

The serial interface can be configured through modules in the following modes: RS232, RS422, RS485 (with or without optical isolation) and Current Loop (with optical isolation). The modules with optical isolation allow a protection up to 1000 V for the use in noisy environments where earth loops can occur.

The I/O lines are protected against short-circuits, fast transients, electrostatic discharge and high-frequency EMI. The interrupt line and the transfer rate are software-programmable. The addressing is set through software or jumpers.

The interface is supported through a 16-byte FIFO buffer for sending and receiving data and guarantees reliable operation at high transfer rates.

## Features

- Asynchronous communication adapter
- Modular structure through SI modules
- 4 sockets for SI modules
- Configurable as RS232, RS422, RS485 with or without optical isolation, 20 mA Current Loop (active, passive), with optical isolation through separate SI modules
- Automatic module identification
- Addressing through DIP switches
- 16 byte FIFO buffer for each port
- Interrupt management:  
Single or common interrupt
- Programmable transfer rate
- 5-, 6- or 8-bit character
- 1, 1½ or 2 stop bits
- Parity: even, odd or none
- Automatic transmitter control for RS485

## Safety features

- SI modules with optical isolation of 1000 V available
- Creeping distance IEC 61010-1 (VDE411-1)
- Protection against fast transients (Burst)
- Short-circuit protection for RS422 and RS485 through PTC
- Internal diagnostic function possible, break, parity, overrun and framing error

## PA 7500 - 4-port serial interface

**RS232, RS422, RS485, Current Loop**

**Free mode configuration  
through SI modules**

**With/without optical isolation**

## EMC tested gemäß 89/336/EEC

- IEC 61326: electrical equipment for measurement, control and laboratory use

## Applications

- Data acquisition
- Industrial process control
- Industrial serial communication
- Multi-user systems
- SPS-interface
- Modem and printer interface
- Multidrop applications ...

## Software drivers

A CD-ROM with the following software and programming examples is supplied with the board.

### Standard drivers for:

Windows 2000/NT/98/95: Standard COM-Treiber

### Samples for:

Microsoft VC++ 5.0  
Visual Basic 5.0  
Delphi 4.0

### On request:

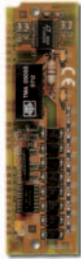

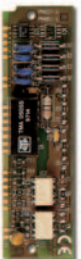

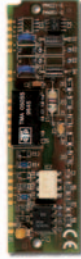
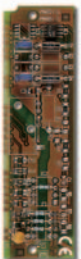

MS-DOS, Windows 3.11

Current driver list on the web: [www.addi-data.com](http://www.addi-data.com)

# 4-port serial interface, modular, with/without optical isolation



## SI MODULES

Operating mode	RS232		RS422		RS485		20 mA CL
The SI modules can be freely selected for each port. They are not included with the board and have to be ordered separately.							
<b>modules</b>	<b>PM232-G</b>	<b>PM232</b>	<b>PM422-G</b>	<b>PM422</b>	<b>PM485-G</b>	<b>PM485</b>	<b>PMTTY</b>
optical isolation 1000 V	yes		yes		yes		yes
Creeping distance 3.2 mm	yes		yes		yes		yes
Short-circuit protection			yes	yes	yes	yes	
ESD protection	yes	yes					
Burst protection			yes	yes	yes	yes	yes
Duplex	Full	Full	Full/Half	Full/Half	Half	Half	Full
Max. Baudrate	19.2 kBaud to 1 MBaud on request	115.2 kBaud to 1 MBaud on request	115.2 kBaud to 1 MBaud on request	115.2 kBaud to 1 MBaud on request	115.2 kBaud to 1 MBaud on request	115.2 kBaud to 1 MBaud on request	19.2 kBaud
Modem control signals	through software	through software	Automatic	Automatic	Automatic	Automatic	Automatic
Automatic transmitter control					yes	yes	
Current consumption	48 mA	21 mA	42 mA	5 mA	54 mA	5 mA	51 mA

## PA 7500

### Specifications

#### 4-port serial interface

Mode:	RS232, RS422, RS485, 20 mA Current Loop (active, passive) with or without optical isolation through separate SI modules
Transmission mode:	Asynchronous, full or half duplex (SI modules)
Addressing:	automatic through software for each port or through DIP switches
Memory:	16-byte FIFO buffer for each port
Transfer rate:	programmable up to 112 kBaud (Option to 1 MBaud)
Protocol:	5-, 6-, or 8-bit character 1, 1½ or 2 stop bits
Parity:	even, odd, none, mark or space
Interrupt lines:	Interrupt management for each interface Single interrupt: IRQ 3-5 for XT, IRQ 9-12, 15 for AT Common interrupts: IRQ 10, 11, 12, 15 for AT

#### Safety features

Optical isolation:	1000 V (SI modules)
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#### Noise immunity

Test level:	- ESD: 4 kV      - Fields: 10 V/m - Burst: 4 kV      - Cond. radio interferences: 10 V
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#### Physical and environmental conditions

Dimensions:	200 x 99 mm
System bus:	ISA
Place required:	1 XT or AT slot
Operating voltage:	+5 V, ± 5 % from the PC
Current consumption (without modules):	80 mA typ./ 130 mA typ./ 270 mA typ.
Front connector:	37-pin SUB-D male connector
Temperature range:	0 to 60 °C (with forced cooling)

#### connection cable

37-pin SUB-D female connector



4 x 25-pin SUB-D male connector (ST074)  
or  
4 x 9-pin SUB-D male connector (ST075)

## ORDERING INFORMATION

### ADDICOM PA 7500

**PA 7500:** 4-port serial interface. Incl. technical description and software drivers.

#### SI modules: Please order the modules separately!

**PM232-G:** RS232 mode with optical isolation

**PM232:** RS232 mode

**PM422-G:** RS422 mode with optical isolation

**PM422:** RS422 mode

**PM485-G:** RS485 mode with optical isolation

**PM485:** RS485 mode

**PMTTY:** 20 mA Current Loop mode (active, passive) with optical isolation

**Option:** Quartz: up to 1 MBaud transfer rate for RS232, RS422, RS485, PMTTY

**ST074:** Connection cable, 37-pin to 4 x 25-pin

**ST075:** Connection cable, 37-pin to 4 x 9-pin

[www.addi-data.com](http://www.addi-data.com)

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