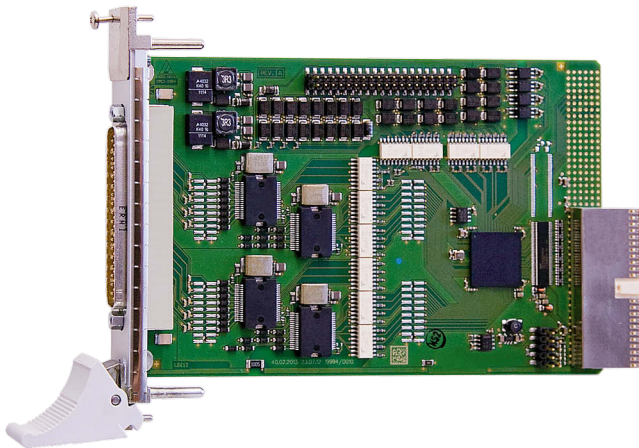


# Digital I/O board, optically isolated, 64 digital inputs and outputs, 24 V

**New!\***



## CPCI-1564

32 digital inputs, 24 V,

including 16 interruptible inputs, filtered

32 digital outputs, 24 V, 500 mA/channel, filtered

Optical isolation 1000 V

Watchdog, timer, 3 x 32-bit counter up to 500 kHz

The outputs are reset to "0" at Power-On



CompactPCI™ 32-bit

## Features

- CompactPCI 3,3 V

### Inputs

- 32 optically isolated digital inputs, 24 V, including 16 interruptible and 3 counter inputs
- Inputs organised in 4 groups of 8 channels, each group has its own ground line
- Reverse voltage protection
- All inputs are filtered

### Outputs

- 32 optically isolated digital outputs, 11 V to 36 V
- Output current per channel 500 mA
- Watchdog for resetting the outputs to "0"
- At Power-On, the outputs are reset to "0"
- Total current for 8 outputs 1.85 A
- Electronic fuse
- Short-circuit current per output max. 1.7 A
- Overtemperature and overvoltage protection
- 24 V power outputs with protection diodes and filters
- Output capacitors against electromagnetic emissions
- Ext. 24 V voltage supply screened and filtered
- Shutdown logic, when the external supply voltage drops below 5 V

### Safety features

- Optical isolation 1000 V
- Creeping distance IEC 61010-1
- Protection against fast transients (burst), overvoltage, electrostatic discharge and high-frequency EMI
- Interrupt started through counter, timer
- Separate ground lines for inputs and outputs

## Applications

- Industrial I/O control • PLC coupling
- Signal switching
- Interface to electromechanical relays
- Automatic test equipment
- ON/OFF monitoring of motors, lights...
- Watchdog • Machine interfacing
- ...

## Software drivers

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

### Standard drivers for:

- Linux
- 32-bit drivers for Windows 8 / 7 / Vista / XP / 2000
- Signed 64-bit drivers for Windows 8 / 7 / XP
- Real-time use with Linux and Windows on request

### Drivers and samples for the following compilers and software packages:

- C#.NET, C

### On request:

Further operating systems, compilers and samples.

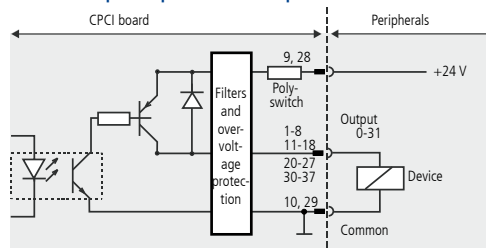
Driver download: [www.addi-data.com/downloads](http://www.addi-data.com/downloads)



URS-1500-6U  
6U bracket



## Connection principle of the outputs



\* Preliminary product information

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## Specifications\*

### Digital inputs

Number of inputs:	32; 4 groups of channels with common ground: Input: 0-7, 8-15, 16-23, 24-31 - 0-3: fast counter input, 500 kHz - 4-19: interruptible inputs	
Optical isolation:	Through opto-couplers, 1000 V	
Nominal voltage 24 V	Digital inputs	Counter inputs
Input current at 24 V:	4 mA typ.	10,5 mA typ.
Logic input levels:		
UH max.:	30 V	
UH min.:	19 V	
UL max.:	14 V	
UL min.:	0 V	

### Digital outputs

Number of outputs:	32, optically isolated up to 1000 V	
Output type:	High side (load to ground) acc. to IEC 1131-2	
Nominal voltage:	24 V	
Supply voltage:	11 V to 36 V, min. 5 V (via front connector)	
Max. current for 8 outputs:	1.85 A typ.	
Output current/output:	500 mA max.	
Short-circuit current/output shutdown at 24 V, $R_{load} = 10\text{ m}\Omega$ :	max. 1.7 A	
RDS ON resistance:	150 m $\Omega$ typ.	
Switch-on time:	40 $\mu$ s typ.	
Switch-off time:	470 $\mu$ s typ.	
Overtemperature (shutdown):	130 °C (output driver)	
Temperature hysteresis:	15 °C (output driver)	

### Safety

Shutdown logic:	When the ext. 24 V voltage drops below 5 V: The outputs are switched off.
Diagnostics:	Pin 19: status bit or interrupt to the PC
Timer:	12-bit
Watchdog:	8-bit, timer-programmable from 20 ms to 5 s in steps of 20 ms

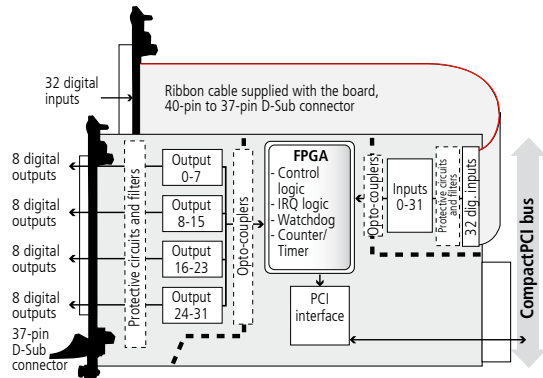
### EMC – Electromagnetic compatibility

The product complies with the European EMC directive. The tests were carried out by a certified EMC laboratory in accordance with the norm from the EN 61326 series (IEC 61326). The limit values as set out by the European EMC directive for an industrial environment are complied with. The respective EMC test report is available on request.

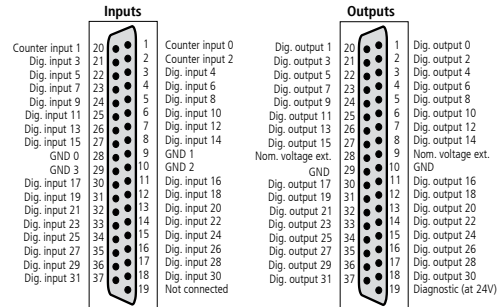
### Physical and environmental conditions

Dimensions:	160 x 100 mm
System bus:	CompactPCI 32-bit
Space required:	1 CompactPCI slot 3U (only at 3HE)
Operating voltage:	+5 V, $\pm 5\%$ , 3.3 V from CompactPCI system
Current consumption:	395 mA $\pm 15$ mA typ.
Front connector:	37-pin D-Sub male connector for 32 dig. outputs 37-pin D-Sub male connector for 32 dig. inputs (only 6HE)
Additional connector:	37-pin D-Sub male connector on separate bracket for 32 digital inputs (only 3HE)
Temperature range:	-40 °C to +85 °C (with forced cooling)

### Simplified block diagram



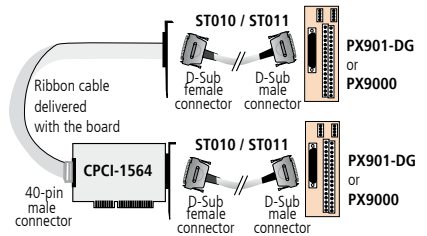
### Pin assignment – 37-pin D-Sub male connector



### ADDI-DATA connection

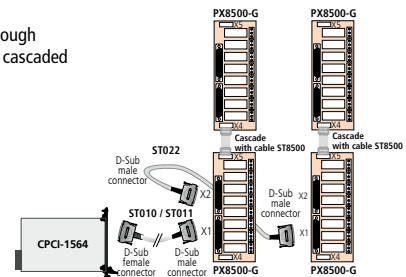
#### Example 1:

- Connection of the inputs (ribbon cable)
- Connection of the outputs through screw terminal panel PX901-DG or PX9000



#### Example 2:

- Connection of the outputs through relay output board PX8500-G cascaded in 32 relays



### Ordering information

#### CPCI-1564

Digital I/O board, 64 digital I/O, optically isolated, 24 V. Incl. technical description, software drivers

#### Accessories

<b>URS-1564-6U:</b>	6U bracket for mounting in 6U housing
<b>PX901-D:</b>	Screw terminal panel
<b>PX901-DG:</b>	Screw terminal panel for DIN rail
<b>PX9000:</b>	3-row screw terminal panel
<b>PX8500-G:</b>	Relay output board for DIN rail, cascable
<b>ST010:</b>	Standard round cable, shielded, twisted pairs, 2 m

<b>ST011:</b>	Standard round cable, shielded, twisted pairs, 5 m
<b>ST010-S:</b>	Same as ST010, for high currents (24 V supply separate)
<b>ST022:</b>	Standard round cable between PX8500 and PX901, shielded, 2 m
<b>ST8500:</b>	Ribbon cable for cascading two PX8500

\* Preliminary product information