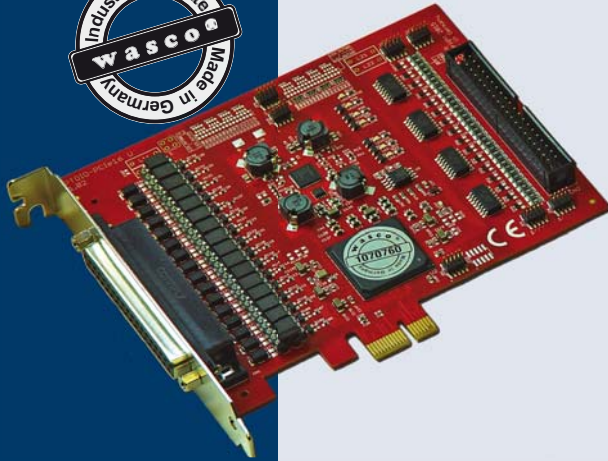


OPTOIO-PCIe16STANDARD

Digital PCIe I/O Interface Card with 16 Optocoupler Inputs,
16 Optocoupler Outputs and Board Identification



16 optocoupler isolated
digital inputs

16 optocoupler isolated
digital outputs

board identification

SPECIFICATIONS

The wasco® interface card OPTOIO-PCIe16STANDARD provides 16 digital input channels and 16 digital output channels, each of which is galvanically isolated. Inputs and outputs are electrically isolated by high-quality optocouplers. Special powerful output optocouplers manage a maximum switching current of up to 150 mA. Additionally each input and output is equipped with protection diodes against harmful voltage peaks and impulses. You can adjust two different voltage ranges by setting jumper blocks.

Output optocouplers are led to a 37 pin D-Sub jack mounted to the board's slot bracket. Optocoupler inputs are fed to a 40-pin box header. A special available cable (set of female connector, ribbon cable and 37pin female sub-D-connector with slot bracket) can relocate the connection to a slot of your PC casing. Pin assignment is identical with ISA bus card OPTOIO-16STANDARD and PCI bus card OPTOIO-PCI16STANDARD. Therefore a switch to PCIe is easily to realise. Furthermore the card provides a jumper block for card identification. This enables you to differentiate between several identical cards in your system.

Optocoupler Inputs

Optocoupler: LTV-244 or compatible
16 channels, optically isolated
Galvanic isolation also between every single channel with each two separate connections for each of the channels
Overvoltage protection by protection diodes
Two different input voltage ranges jumper selectable:

Range 1 high = 14..30 Volt
 low = 0..2 Volt
Range 2: high = 5..15 Volt
 low = 0..1 Volt

Input frequency: max. 10 kHz

Optocoupler Outputs

Optocoupler: 16 * PC853 or compatible socket mounted
16 channels, optically isolated
Galvanic isolation also between every single channel with each two separate connections for each of the channels
Overvoltage protection by protection diodes
Output current max. 150mA
Output frequency ca 1 KHz
Voltage collector-emitter: max. 50V
Voltage emitter-collector: max. 0,1V

Board Identification

Jumper block with five pairs of contact pins

Connection plug

1 * 37-pin D-Sub connector female
1 * 40-pin box header

Bus system

32-Bit PCIe Bus (8 Bit data access)

Dimensions of the Board

129 mm x 111 mm (l x b)
standard height, half length card
6-layer PCB

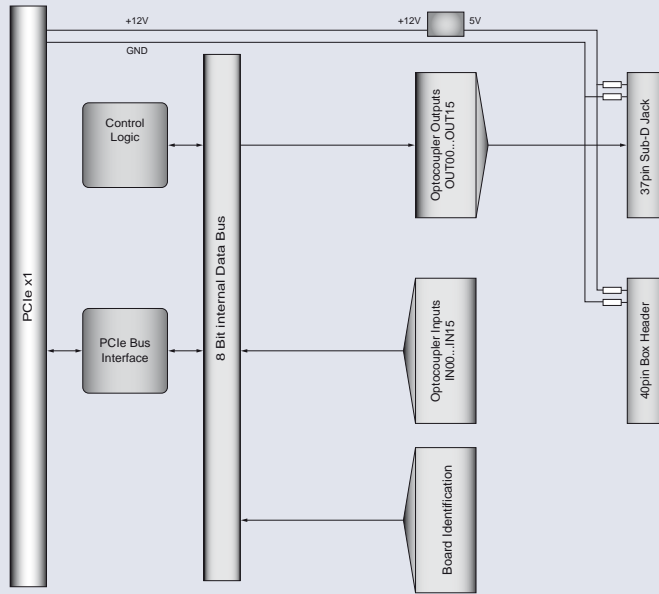
Other

Control LEDs indicating power supply

APPLICATIONS

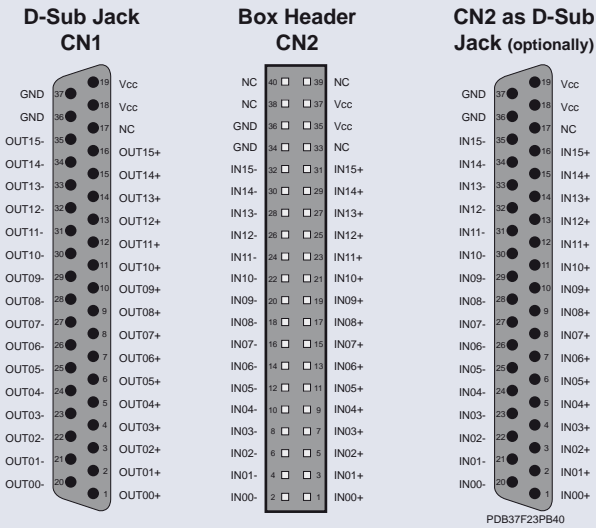
On/off events
Identification of contact states
Binary data acquisition
Process control
Data acquisition of BCD coded instruments
Control of external power relays

BLOCK DIAGRAM

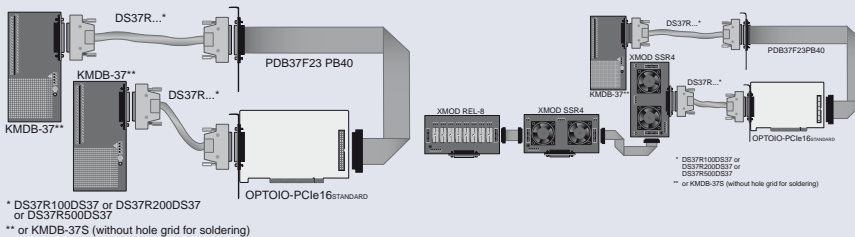


PIN ASSIGNMENT

Anode and cathode of each input optocoupler is led to a 37-pin Sub-D jack for each channel individually. Collector and emitter are fed to a 40-pin box header CN2 for each output channel individually. CN1 is mounted to the board's bracket, CN2 is accessible inside the computer only. To obtain optimal connections to periphery with strain relief optionally a flat ribbon cable is available (see „Suitable Accessories“).



CONNECTION TECHNIQUE (APPLICATION EXAMPLES)



PROGRAMMING

The accompanying CD provides drivers for Windows (please visit www.wasco.de to monitor available s/w versions) and sample programs for Turbo-C®, Delphi, Borland C++, C++ Builder, Microsoft Visual Basic, VB.NET, C++ and C#.NET

SCOPE OF DELIVERY

Interface Card OPTOIO-PCIe16^{STANDARD}
 Manual German (English on request)
 Driver and program examples on CD

ORDER INFORMATION

OPTOIO-PCIe16^{STANDARD}
 EDP No A-829200
 I/O Card

SUITABLE ACCESSORIES

PDB37F23PB40 EDP No A-497500

Flat ribbon cable (approx. 23 cm) to relocate signals from CN2 (40-pin box header) to a 37pin Sub-D jack with slot bracket (please order 1 pc per plug)



DS37R500DS37 EDP No A-202800

Shielded connection cable (approx. 5 m) to connect KMDB-37 to a 37pin Sub-D jack



DS37R200DS37 EDP No A-202400

Shielded connection cable (approx. 2 m) to connect KMDB-37 to a 37pin Sub-D jack



DS37R100DS37 EDP No A-202200

Shielded connection cable (approx. 1 m) to connect KMDB-37 to a 37pin Sub-D jack



KMDB-37S EDP No A-204910

Terminal module with a 38-pin screw terminal block to connect to a 37pin Sub-D jack



XMOD REL-8 EDP No A-3268

Relay module with eight isolated outputs for switching currents up to 5 A (Connection to the optocoupler outputs, cascading of the modules is possible)



XMOD REL-4 EDP No A-3264

Relay module with four isolated outputs for switching currents up to 5 A (Connection to the optocoupler outputs, cascading of the modules is possible)



XMOD SSR-4 EDP No A-3284

Solid State Relay module with four isolated outputs for switching currents up to 5 A (Connection to the optocoupler outputs, cascading of the modules is possible)



XMOD SSR-2 EDP No A-3282

Solid State Relay module with two isolated outputs for switching currents up to 5 A (Connection to the optocoupler outputs, cascading of the modules is possible)



For more detailed information about the here listed and other accessories we refer to the corresponding data sheets