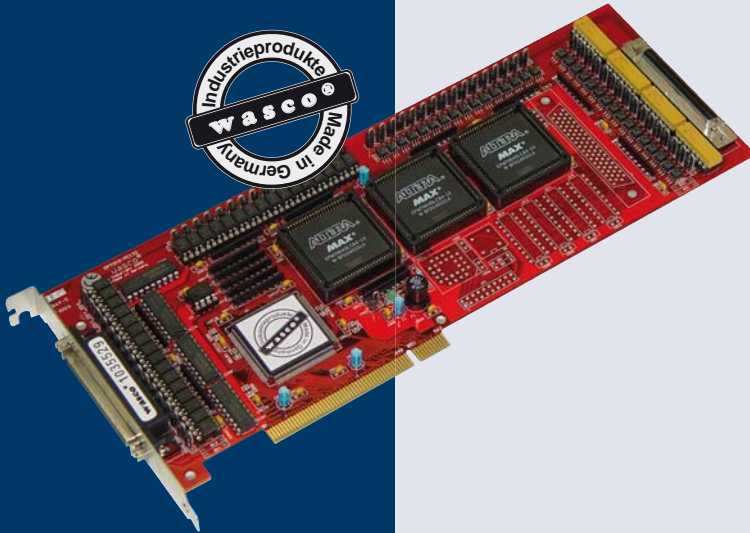# wasco®

OPTOIO-PCI32 STANDARD

Digital PCI I/O Interface Card with 32 Optocoupler Inputs, 32 Optocoupler Outputs

32 optocoupler inputs

32 optocoupler outputs

The wasco® interface card OPTOIO PCI32 STANDARD features 32 digital inputs and 32 digital outputs, every single channel is galvanically isolated by optocouplers of high quality. All input optocouplers are equipped with Schmitt Trigger Function. Special high-power output optocouplers manage a switching current of up to 150 mA. Each input or output is equipped with additional protection diodes against harmful voltage peaks. You easily can adjust two different voltage ranges for each input channel individually by setting resistor arrays. Two 68-pin SCSI-II sockets connect to periphery. Output optocouplers are led to the one 68-pin SCSI-II socket mounted to the board's slot bracket. Optocoupler inputs are fed to the other onboard mounted 68-pin SCSI-II jack Optionally a special cable (set of female connector, flat ribbon cable and 68-pin female connector with slot bracket) is available, to relocate the signals to a slot of your PC casing.

SPECIFICATIONS

Optocoupler Inputs
Optocoupler: 32* PC400
32 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 selectable by resistor arrays:

$R = 4,7\ k\Omega$: high = 8..30 Volt
low = 0..4 Volt
$R = 1,0\ k\Omega$: high = 2,2..15 Volt
low = 0..1,5 Volt
Input frequency: max. 10 kHz

Optocoupler Outputs
Optocoupler: 32 * PC853
32 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
Voltage collector-emitter: max. 50V
Voltage emitter-collector: max. 0,1V

Connection plug
2*68-pin SCSI-II socket

Bus system
32-Bit PCI Bus (16 Bit data access)

Power consumption
+5 V   typ. 800 mA

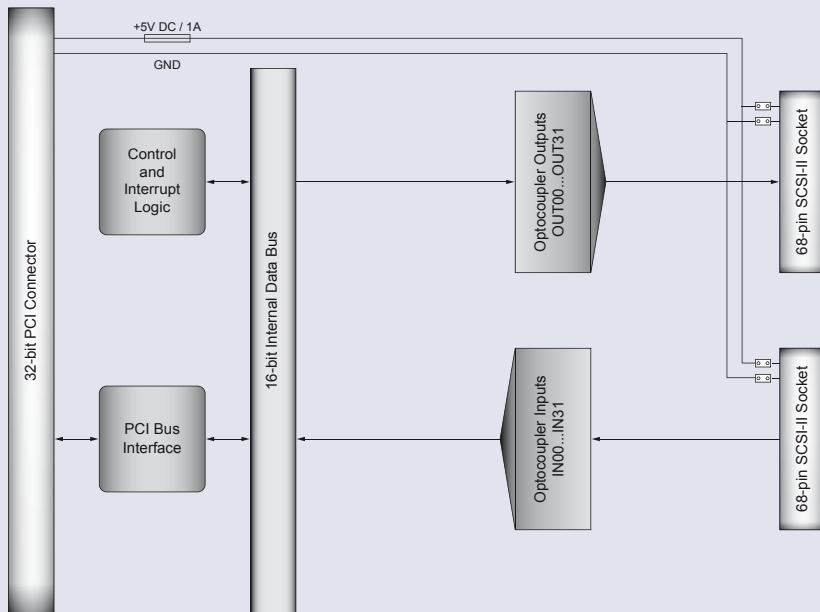**Dimensions**
275 mm x 106,7 mm (l x h)
4layer PCB

Other
Control and protection LEDs presenting power supply of timer and I/O components as well as control logic
All IC sockets with gold-plated contacts

APPLICATIONS

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

BLOCK DIAGRAM

PIN ASSIGNMENT

Anode and cathode of each input optocoupler is led to the 68-pin SCSI-II socket CN1 for each channel individually. Collector and emittor are fed to the SCSI-II socket CN2 for each output channel individually. CN1 is mounted to the board's bracket, the onboard mounted 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"). .
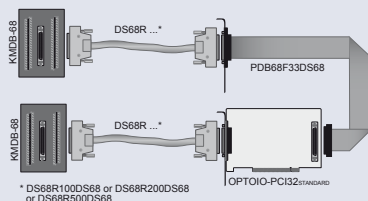
SCSI-II Socket CN1

GND		Vcc
GND		Vcc
OUT31-		OUT31+
OUT30-		OUT30+
OUT29-		OUT29+
OUT28-		OUT28+
OUT27-		OUT27+
OUT26-		OUT26+
OUT25-		OUT25+
OUT24-		OUT24+
OUT23-		OUT23+
OUT22-		OUT22+
OUT21-		OUT21+
OUT20-		OUT20+
OUT19-		OUT19+
OUT18-		OUT18+
OUT17-		OUT17+
OUT16-		OUT16+
OUT15-		OUT15+
OUT14-		OUT14+
OUT13-		OUT13+
OUT12-		OUT12+
OUT11-		OUT11+
OUT10-		OUT10+
OUT09-		OUT09+
OUT08-		OUT08+
OUT07-		OUT07+
OUT06-		OUT06+
OUT05-		OUT05+
OUT04-		OUT04+
OUT03-		OUT03+
OUT02-		OUT02+
OUT01-		OUT01+
OUT00-		OUT00+

SCSI-II Socket CN2

GND		Vcc
GND		Vcc
IN31-		IN31+
IN30-		IN30+
IN29-		IN29+
IN28-		IN28+
IN27-		IN27+
IN26-		IN26+
IN25-		IN25+
IN24-		IN24+
IN23-		IN23+
IN22-		IN22+
IN21-		IN21+
IN20-		IN20+
IN19-		IN19+
IN18-		IN18+
IN17-		IN17+
IN16-		IN16+
IN15-		IN15+
IN14-		IN14+
IN13-		IN13+
IN12-		IN12+
IN11-		IN11+
IN10-		IN10+
IN09-		IN09+
IN08-		IN08+
IN07-		IN07+
IN06-		IN06+
IN05-		IN05+
IN04-		IN04+
IN03-		IN03+
IN02-		IN02+
IN01-		IN01+
IN00-		IN00+

CONNECTION TECHNIQUE (APPLICATION EXAMPLES)

* DS68R100DS68 or DS68R200DS68 or DS68R500DS68

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
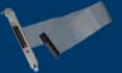
SCOPE OF DELIVERY

Interface Card OPTOIO-PCI32STANDARD
German Manual (in English on request)
Driver and program examples on CD

ORDER INFORMATION

OPTOIO-PCI32STANDARD
EDP No A-440600
I/O Card

SUITABLE ACCESSORIES

PDB68F33DS68　　　　**EDP No A-498600**
Flat ribbon cable (approx. 33 cm) to relocate signals from CN2 to a 68-pin SCSI-II jack with slot bracket (please order 1 pc per plug)

DS68R500DS68　　　　**EDP No A-492800**
Special twisted and shielded connection cable (approx. 5 m) to connect KMDB-68 or any other KM modules to a 68-pin SCSI-II jack

DS68R200DS68　　　　**EDP No A-492400**
Special twisted and shielded connection cable (approx. 2 m) to connect KMDB-68 or any other KM modules to a 68-pin SCSI-II jack

DS68R100DS68　　　　**EDP No A-492200**
Special twisted and shielded connection cable (approx. 1 m) to connect KMDB-68 or any other KM modules to a 68-pin SCSI-II jack

KMDB-68　　　　**EDP No A-494800**
Terminal module with a 68-pin screw terminal block to connect to a 68-pin SCSI-II jack

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