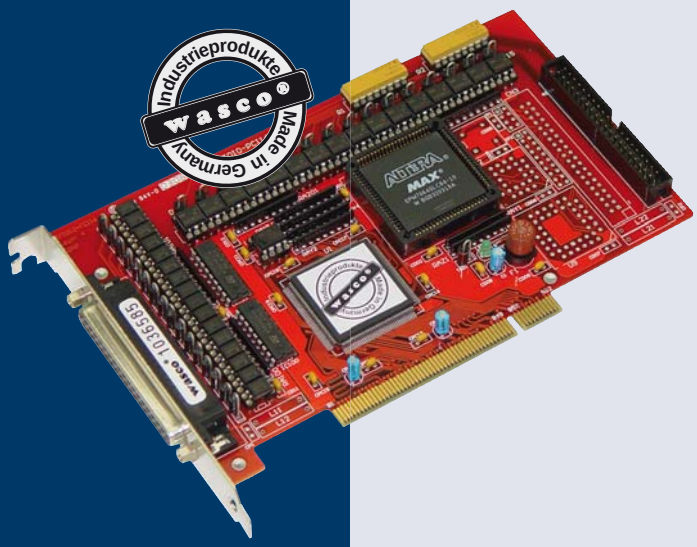
wasco®

OPTOIO-PCI16STANDARD

Digital PCI I/O Interface Card with 16 Optocoupler Inputs and 16 Optocoupler Outputs



16 optocoupler inputs

16 optocoupler outputs

The wasco® interface card OPTOIO-PCI16STANDARD provides 16 digital inputs and 16 digital outputs, each channel is opto-isolated galvanically isolated by optocouplers of high quality. All input optocoupler have integrated schmitt trigger function. Special high power output optocouplers manage a maximum switching current of 150 mA. Each input or output is fitted with additional protection diodes against harmful voltage peaks. You can adjust two different voltage ranges by resistors easily to change and plug in. 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 and input voltage ranges are identical with ISA bus card OPTOIO-16STANDARD. Therefore a switch to PCI is easily to realise.

SPECIFICATIONS

Optocoupler Inputs
Optocoupler:16 * PC900V
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 adjustable by enclosed pluggable resistors:
R = 4,7 kOhm: high = 8...30 Volt
low = 0...4 Volt
R = 1,0 kOhm: high = 2,2...15 Vol
low = 0...1,5 Volt
Input frequency: max. 10 KHz

Optocoupler Outputs
Optocoupler: 16 * PC853
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
Voltage collector-emitter: max. 50V
Voltage emitter-collector: max. 0,1V

Connection plugs
1 * 37-pin Sub-D socket
1 * 40-pin box header

Bus System
32-bit PCI Bus (internal data access 8 bit)

Power Consumption
+5 V typ. 350 mA

Dimensions
177 mm x 106,7 mm (l x b)
4layer multilayer board

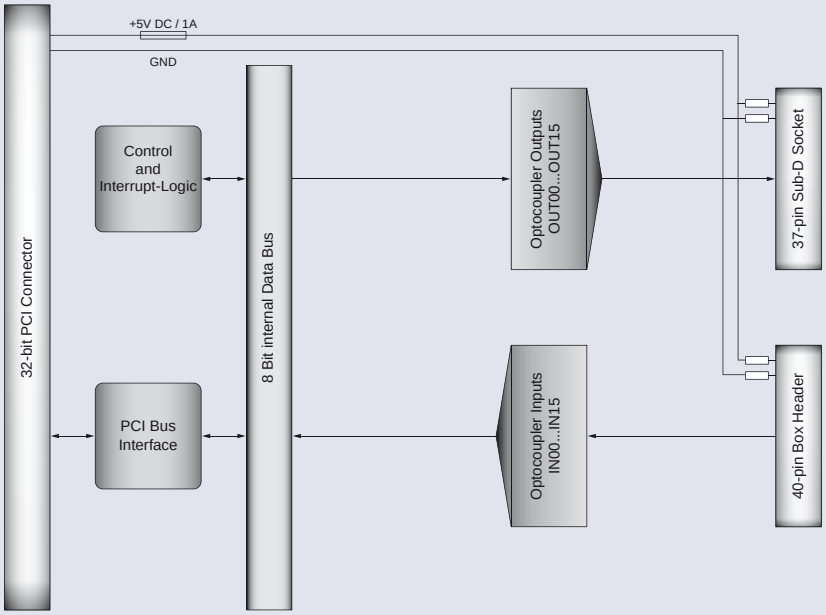
Other
Protection and control LED indicating power supply of timer and I/O components as well as of logic control.
All IC sockets with gold plated contacts

APPLICATIONS

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

Phone: +49.8071.9187.0
Fax: +49.8071.9187.40
www.messcomp.com/info@messcomp.com

Block Diagram



Pin Assignment

Anode and cathode of each input optocoupler is led to the 37-pin Sub-D socket CN1 for each channel inidvidually. Collector and emittor are fed to a 40-pin box header CN2 for each output channel individually. CN1 is mounted to the board's slot 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“) .

Sub-D Socket CN1

GND	37	19	Vcc		
GND	36	18	Vcc		
OUT15-	35	17	NC		
OUT14-	34	16	OUT15+		
OUT13-	33	15	OUT14+		
OUT12-	32	14	OUT13+		
OUT11-	31	13	OUT12+		
OUT10-	30	12	OUT11+		
OUT09-	29	11	OUT10+		
OUT08-	28	10	OUT09+		
OUT07-	27	9	OUT08+		
OUT06-	26	8	OUT07+		
OUT05-	25	7	OUT06+		
OUT04-	24	6	OUT05+		
OUT03-	23	5	OUT04+		
OUT02-	22	4	OUT03+		
OUT01-	21	3	OUT02+		
OUT00-	20	2	OUT01+		
		1	OUT00+		

Box Header CN2

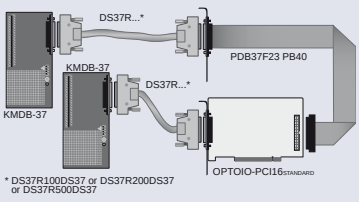
NC	40	39	NC		
NC	38	37	Vcc		
GND	36	35	Vcc		
GND	34	33	NC		
IN15-	32	31	IN15+		
IN14-	30	29	IN14+		
IN13-	28	27	IN13+		
IN12-	26	25	IN12+		
IN11-	24	23	IN11+		
IN10-	22	21	IN10+		
IN09-	20	19	IN09+		
IN08-	18	17	IN08+		
IN07-	16	15	IN07+		
IN06-	14	13	IN06+		
IN05-	12	11	IN05+		
IN04-	10	9	IN04+		
IN03-	8	7	IN03+		
IN02-	6	5	IN02+		
IN01-	4	3	IN01+		
IN00-	2	1	IN00+		

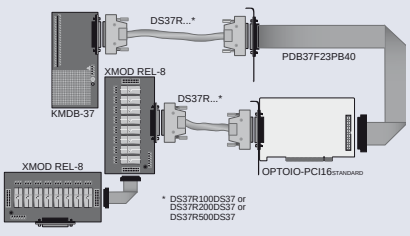
CN2 as Sub-D Socket (optionally)

GND	37	19	Vcc		
GND	36	18	Vcc		
IN15-	35	17	NC		
IN14-	34	16	IN15+		
IN13-	33	15	IN14+		
IN12-	32	14	IN13+		
IN11-	31	13	IN12+		
IN10-	30	12	IN11+		
IN09-	29	11	IN10+		
IN08-	28	10	IN09+		
IN07-	27	9	IN08+		
IN06-	26	8	IN07+		
IN05-	25	7	IN06+		
IN04-	24	6	IN05+		
IN03-	23	5	IN04+		
IN02-	22	4	IN03+		
IN01-	21	3	IN02+		
IN00-	20	2	IN01+		
		1	IN00+		

PDB37F23PB40

Connection Technique (Application Examples)





Programming

Please find on accompanying CD drivers for DOS and Windows95/98/NT/2000/XP/Server2003/Vista® and **Windows7®/8/10** as well as I/O-Support for LabVIEW® and example programs in Turbo-C®, Turbo-Pascal®, Borland C++, Delphi, C++ Builder, Microsoft Visual Basic, VB.NET, C++ und C#.NET

Scope of Delivery

Interface Card OPTOIO-PCI16STANDARD
Manual German (English on request)
Driver and program examples on CD

Order Information

OPTOIO-PCI16STANDARD EDP No A-429200
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 socket 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