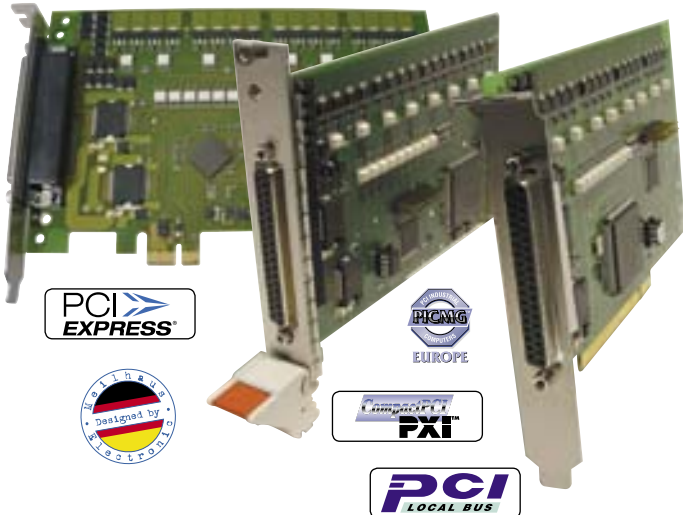


Reliable digital board, high-drive opto-isolated and TTL

ME-8200 and MEphisto Opto



Does your application require opto-isolated digital channels with a higher level than the regular 24 V? Then this is the right board for you: Depending on the model you can make use of 8 or 16 opto-isolated inputs and outputs as well as 16 additional standard TTL digital channels. All outputs are stable during PC power on/off. Moreover, the board has some interesting and versatile interrupt functions...

- 8 or 16 opto inputs and 8 or 16 opto outputs.
- Level up to **50 V**. Isolation up to 500 V. Outputs source, option "S": Sink. **Load up to 700 mA**. Inputs with **overvoltage protection/transient diode**. Short circuit proof.
- 16 TTL digital I/O lines (2x 8 bit ports), expandable with relays/opto-isolation.
- **Interrupt control**: Use to monitor changes in status. **Bit pattern comparator**, 8 or 16 bit wide (interrupt on comparison positive). **Interrupt on thermic load**. Each input can be selected as interrupt source via a mask register.
- Plug'n'Play. Available for the bus platforms **StandardPCI** and **PXI/CompactPCI** (PCI Local Bus 2.1 compatible), **PCI-Express** and with ME-Synapse: **Ethernet/LAN, USB**.
- **USB version MEphisto Opto**: USB 1.1 full-speed. **Robuste metal housing**. External power supply.



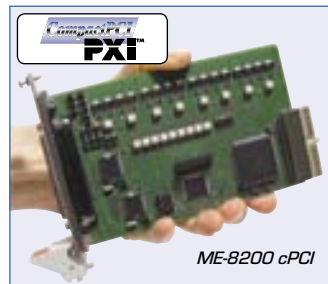
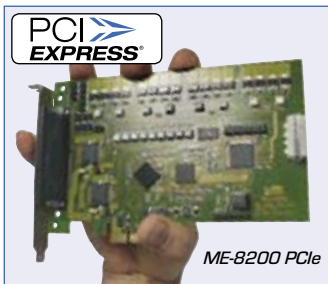
Ready for ME-Synapse, that means: You can use the CompactPCI versions of the ME-8200 with the **ME-Synapse LAN** in your ethernet or with the **ME-Synapse USB** at the USB! For more information see the ME-Synapse.

--- Software included on CD: ---

- ME-IDS and ME-IDC driver and configuration tool for **Windows XP, 2000, Vista and GNU Linux 2.6**¹⁾.
- Supports **Visual C/C++**, **Visual Basic**, **VEE Pro** (Windows), **LabVIEW** (Windows, Linux), **Python**.
- Programming examples.

"Soft manuals" English and German for Acrobat Reader/PDF.

1) USB models MEphisto Opto not for Linux!

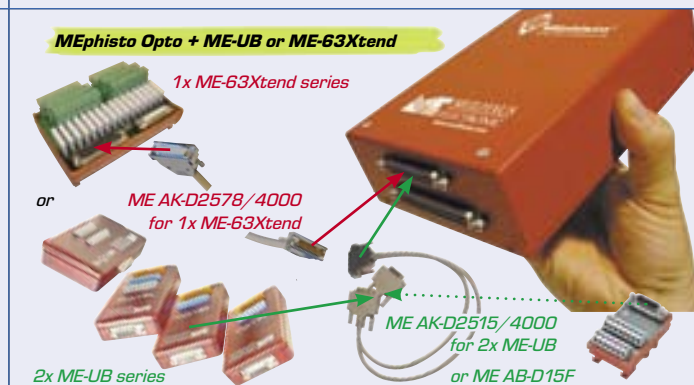
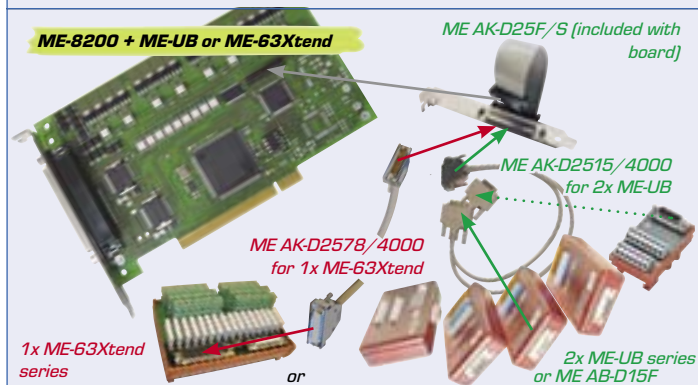
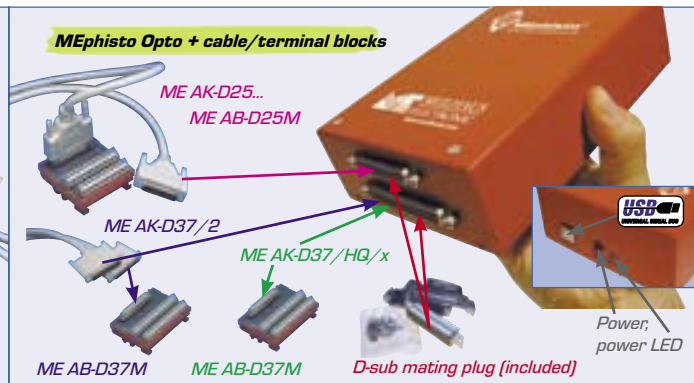
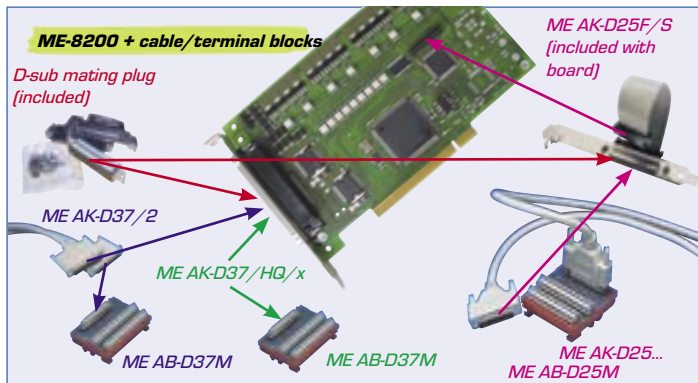


--- Specifications ---

	ME-8200A	ME-8200B	MEphisto Opto A	MEphisto Opto B
Opto inputs				
Number, specs	8	16	8	16
Operating modes	Switching frequency max. 1 kHz. Isolation up to 500 V. Level low: 0...3 V; high: 3...50 V; input current at 24 V: 7 mA. Inputs with overvoltage protection (transient diode)			
	Simple read.			
	Bit pattern comparator: Programmable, 8 bit (model A) or 16 bit (model B) wide; Interrupt on comparison positive. Bit change: A bit set in the mask register generates an interrupt, when the corresponding input changes it's status. If several bits are set in the mask register: Interrupt, if at least on input changes it's status. Each input can be selected as interrupt source with the mask register (rising, falling, any edge)			
Opto outputs				
Number, specs	8	16	8	16
Drivers	Switching frequency max. 1 kHz. Isolation up to 500 V. Level typ. 24 V (depending on external supply)			
Current	Outputs source (option "-sink": Sink) Load up to 700 mA. Short circuit proof. Interrupt on thermic load			
TTL digital I/O				
Number	16 channels, grouped as 2x 8 bit ports, each port programmable as inputs/outputs			
Level	TTL level. Low: -0.5 V...+0.8 V (I _{Lmax} =±10 µA); high: +2.0 V...5.5 V (I _{Hmax} =±10 µA)			
Expand with...	Relays or opto-isolation: ME-63Xtend series, ME-UB series			
General				
Bus interface	StandardPCI or CompactPCI/PXI; 32 bit/33 MHz PCI Local Bus 2.1 compatible. PCI-Express x2		USB 1.1 full-speed	
Size (mm)	PCI ~ 174 x 98, PCIe ~ 111 x 168 160 x 100 (3 U Europacard format)		Metal housing, ~ 115 (W) x 180 (D) x 50 (H) without connector/rubber pads	
Anschlüsse	37-pin D-sub female (opto inputs/outputs)			
	25-pin D-sub female (16 TTL digital I/O channels) on additional slot bracket with flat ribbon cableband cable zum IDC auf der Karte)		25-pin D-sub female, USB connector and connector for power supply	

Reliable digital board, high-drive opto-isolated and TTL

ME-8200 and MEphisto Opto



--- Ordering codes and features

ME-8200 and MEphisto Opto ---

Model	Digital I/O			Extras	Connector	Bus		
	Opto in	Opto out	TTL I/O					
ME-8200A PCIe	8	8	16 (2x 8 bit ports)	Inputs 0...3 V (low)/3...50 V (high) with transient protection, outputs 10.5...45 V (source), 700 mA/ channel (optional sink), opto-isolated up to 500 VDC. For the PCI, and PXL/ CompactPCI versions: Interrupt on thermic load, bit pattern comparison positive, change of status. Each input can be selected as interrupt source with a mask register (rising, falling, any edge)	37-pin D-sub female	PCI-Express		
ME-8200A PCI						PCI		
ME-8200A cPCI						CompactPCI/ PXL		
MEphisto Opto A (ME-8200A USB)						USB 1.1 full-speed		
ME-8200B PCIe	16	16	16 (2x 8 bit ports)			Inputs 0...3 V (low)/3...50 V (high) with transient protection, outputs 10.5...45 V (source), 700 mA/ channel (optional sink), opto-isolated up to 500 VDC. For the PCI, and PXL/ CompactPCI versions: Interrupt on thermic load, bit pattern comparison positive, change of status. Each input can be selected as interrupt source with a mask register (rising, falling, any edge)	37-pin D-sub female	PCI-Express
ME-8200B PCI								PCI
ME-8200B cPCI								CompactPCI/ PXL
MEphisto Opto B (ME-8200B USB)								USB 1.1 full-speed
Scope of delivery:	Board or USB box, ME-Power-CD, 78-, 25-pin mating plug. Boards: ME AK-D25F/S. USB versions: USB cable, power supply.							
Options:	All models also with option "-sink" with sink outputs instead of standard "source"							
Attractive bundles:								
Buy the ME board of your choice bundled with accessory of your choice and save money! For example:								
ME-SK ME-8200 ____	StartKit with: ME-8200x of your choice + cable of your choice + terminal block of your choice.							
ME-PP ME-8200 ____	PowerPack with: ME-8200x of your choice + cable of your choice + terminal block of your choice + graphic software development environment VEE Pro in current full version.							



--- Recommended accessory for the ME-8200 and MEphisto Opto... ---

Cable for higher currents over 0.35 A per line:	
ME AK-D37/HQ/x	x = 1 m or 2 m high quality cable . 37-pin D-sub male to female, 1:1 contacted. Metal housing and 2 lines of cable. Line diameter 40x 0.25 mm ² . Current load max. 1.4 A per wire; for load on 20 wir: 2 A.
Cable for small signale up to 0.35 A per line:	
ME AK-D37/2	2 m cable . 78-pin D-sub male to female, 1:1 contacted. Standard cable.
Alternative:	
ME AK-D37/HQ-OE/1	In cases you don't want to use a terminal block: 1 m high quality cable . 37-pin D-sub male and open ends.
Cable for the TTL digital I/O channels:	
ME AK-D25/HQ/1	1 m high quality cable . 25-pin D-sub male to female, 1:1 contacted. Metal housing.
ME AK-D25/2	2 m Standard cable . 25-pin D-sub male to female, 1:1 contacted. Standard cable.
Terminal blocks for the opto (37-pin) and TTL (25-pin) digital channels:	
ME AB-D37M	Standard terminal block . 37-pin D-sub male to spring terminals. In a DIN rail mountable card carrier.
ME AB-D25M	Standard terminal block . 25-pin D-sub male to spring terminals. For on-Board-Digital-Ports.
Expanding the on-board digital ports:	
ME AK-D2578/4000	1 m special cable . 25-pin D-sub male to 78-pin D-sub female, use to connect 1x ME-63Xtend.
ME-63Xtend series	External expansion boards , DIN rail mountable, with relays or opto-isolation. 16 channels.
Alternative:	
ME AK-D2515/4000	1 m cable . 25-pin D-sub male to 2x 15-pin D-sub male, use to connect 2x ME-UB.
ME-UB series	External expansion boxes , with relays or opto-isolation. 8 channels. Use any combination of: ME-UB15, ME-UBRE, ME-UBOI, ME-UBOD. Alternative to ME-UB15: Terminal block ME AB-D15F.
ME AB-D15F	Standard terminal block . 15-pin D-sub female to spring terminals. Can be used as alternative to ME-UB15.
Further accessory:	
ME-Synapse LAN u. USB	Adaptor from 3 U ME CompactPCI to USB or Ethernet/LAN.
ME-Neuron	Pre-configured, 3 U CompactPCI-based complete DAQ and control system.