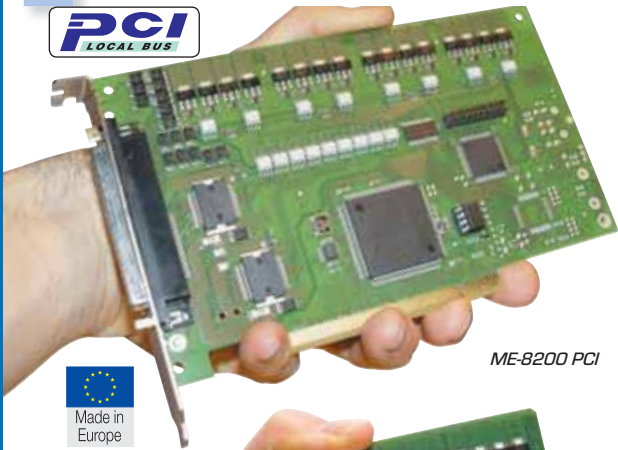
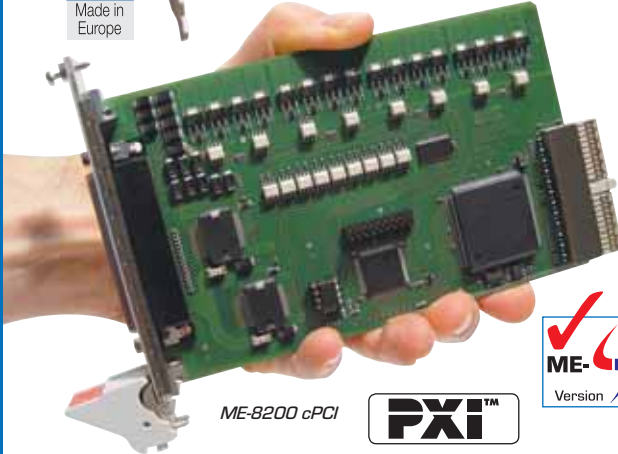


Reliable digital boards, high-drive opto-isolated and TTL

ME-8200 and MEphisto Opto



ME-8200 PCI



ME-8200 cPCI



MEphisto®
Teuflich gute USB-Messtechnik!



MEphisto Opto (ME-8200 USB)



Software included on CD:

- ME-IDS and ME-IDC driver and configuration tool for **Windows XP, 2000 and GNU Linux 2.6.**
- **Visual C/C++, VEE Pro** (Windows), **LabVIEW** (Windows, Linux), **Python, Java** supported.
- Program examples, **MEsslabor (DAQ lab)** software for Windows.
- "Soft" manuals English/German, f. Acrobat Reader/PDF.

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...

- ME-8200A (incl. MEphisto Opto A): 8 opto inputs and 8 opto outputs. ME-8200B (incl. MEphisto Opto B): 16 opto inputs and 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.
- Can be used for monitoring of status changes, with interrupt.
- Bitpattern comparator, 1x or 2x 16 bit. Interrupt on comparison positive.
- **Interrupt on thermic load.**
- Any input selectable as interrupt source via mask register.
- As StandardPCI or 3 U PXI/CompactPCI version: PCI Local Bus 2.1 compatible. Plug'n'Play.
- **USB version MEphisto Opto:** USB 1.1 full-speed. **Robust metal housing.** External power supply.

» Ordering codes and functions

ME-8200 series

| Model | Digital I/O | | | Extras | Connector | Bus |
|--------------------------------|-------------|----------|---------------------|---|---------------------|--------------------|
| | Opto in | Opto out | TTL I/O | | | |
| ME-8200A PCI | 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. Additional functions on the PCI and PXI/CompactPCI versions: Interrupt on thermic load, bitpattern comparison positive, status change. Any input can be selected as interrupt source (rising, falling, any edge) via a mask register | 37-pin D-sub female | PCI |
| ME-8200A cPCI | 16 | 16 | | | | CompactPCI/PXI |
| ME-8200B PCI | | | | | | PCI |
| ME-8200B cPCI | 8 | 8 | | | CompactPCI/PXI | |
| MEphisto Opto A (ME-8200A USB) | | | | | USB 1.1 full-speed | |
| MEphisto Opto B (ME-8200B USB) | 16 | 16 | | | 37-pin D-sub female | USB 1.1 full-speed |

Included: Board or USB box, ME-Power-CD, 78-, 25-pin counter connector. Board versions: ME AK-D25F/S. USB: USB cable, power supply.
Optionen: All models ME-8200 as option "-S" with sink outputs

Save money with ME bundles:

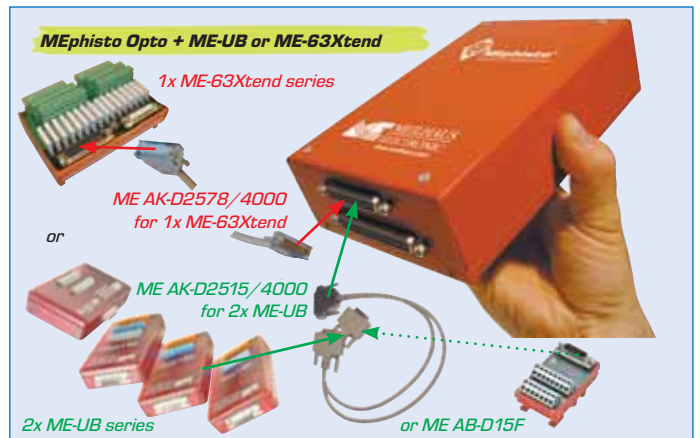
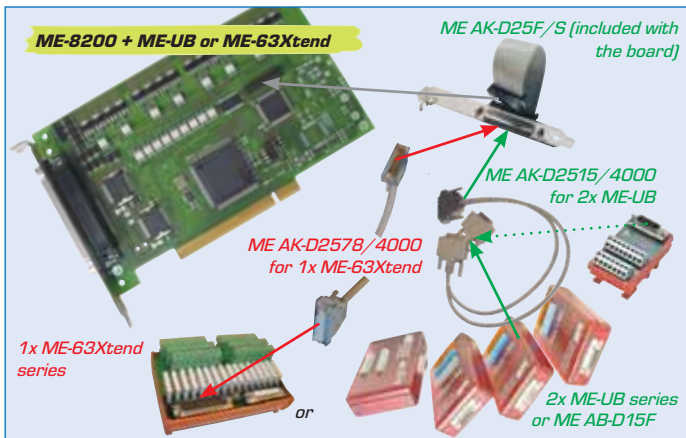
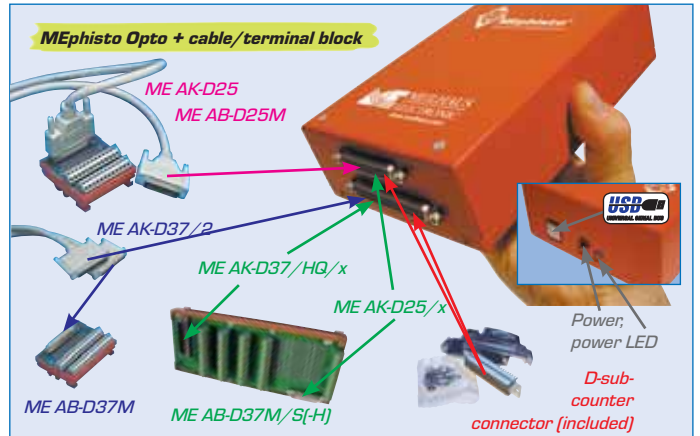
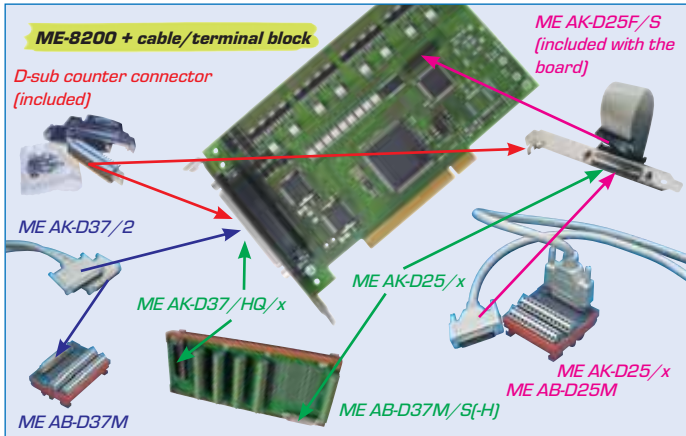
Select a combination of an ME board and accessory! For example:
 ME-SK ME-8200 ____ **StarterKit with:** ME-8200x of your choice + cable of your choice + terminal block of your choice.
 ME-PP ME-8200 ____ **PowerPack with:** ME-8200x of your choice + cable of your choice + terminal block of your choice + graphic software development environment VEE Pro, current full version.

» For the ME-8200 and MEphisto Opto we recommend the following accessory...

| For higher currents over 0.5 A/line: | |
|--------------------------------------|--|
| ME AK-D37/HQ/x | x = 0.25 m, 1 m or 2 m high quality cable . 37-pin D-sub male to female, 1:1 contacted. With metal housing and 2 cable bundles, line diameter 40x 0.25 mm ² . Max. current load 1.4 A per line; load on 20 lines: 2 A. |
| ME AK-D25/x | x = 1 m or 2 m cable . 25-pin D-sub male to female, 1:1 contacted. Connects on board digital ports and terminal block ME AB-D78M/S(-H). |
| ME AB-D37M/S | Deluxe terminal block . 37-pin D-sub male to pluggable spring terminals as well as 25-pin D-sub female to spring terminals. In a robust metal box or in a DIN rail mountable card carrier (-H). |
| ME AB-D37M/S-H | |
| Alternative: | |
| ME AK-D37/HQ-OE/1 | In case you don't want to use a terminal block: 1 m special cable . 37-pin D-sub male to open ends. Data see .../HQ/x |
| For small signals up to 0.5 A/line: | |
| ME AK-D37/2 | 2 m cable . 78-pin D-sub male to female, 1:1 contacted. Standard cable. |
| ME AK-D25/x | x = 1 m or 2 m cable . 25-pin D-sub male to female, 1:1 contacted. Connects on board digital ports and terminal block ME AB-D25M. |
| 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. |

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» For the ME-8200 and MEphisto Opto we recommend the following accessory... (cont.)

| | |
|---|---|
| Expand the on board digital ports: | |
| ME AK-D2578/4000 | 1 m special cable . 25-pin D-sub male to 78-pin D-sub female, connects 1x ME-63Xtend. |
| ME-63Xtend series | External expansion board , DIN rail mountable, available 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, connects 2x ME-UB. |
| ME-UB series | External expansion boxes , available with relays or opto-isolation. 8 channels. Use in any combination: ME-UB15, ME-UBRE, ME-UBOI, ME-UBOO. The ME-UB15 can also be replaced by a terminal block ME AB-D15F. |
| ME AB-D15F | Standard terminal block . 15-pin D-sub female to spring terminals. Can be used to replace ME-UB15. |
| Further accessory: | |
| ME-Synapse ME-1 | "Docking station", converts the cPCI versions of the ME-FoXX ME-46xx to USB 2.0 or TCP/IP Ethernet/LAN. |

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 over voltage protection (transient diode) | | | |
| | Simple read | | | |
| | Bitpattern comparison: Programmable, 8 bit (model A) or 16 bit (model B) wide; interrupt on comparison positive. Bit change: A bit set in the mask register will generate an interrupt, whenever the corresponding input changes its status. If more than one bit is set in the mask register, an interrupt will be generated, if at least one of the related inputs changes its status. Each input can be selected as interrupt source via a mask register (rising, falling, any edge). | | | |
| Opto outputs | | | | |
| Number, specs | 8 | 16 | 8 | 16 |
| Driver | 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, organized as 2x 8 bit ports, each port as input or output | | | |
| 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) | | | |
| Expandable with... | Relays or opto-isolation: ME-63Xtend series, ME-UB series | | | |
| General data | | | | |
| Bus interface | PCI Local Bus 2.1 compatible | | USB 1.1 full-speed | |
| Size (mm) | 32 bit StandardPCI bus ~ 174 x 98 | 32 bit PXI/CompactPCI bus 160 x 100 (3 U Europa card) | ~ 115 (W) x 180 (D) x 50 (H) metal housing, without connectors/rubber pads | |
| Connectors | 37-pin D-sub female (opto inputs/outputs) | | 25-pin D-sub female, USB connector and connector for power supply | |
| | 25-pin D-sub female (16 TTL digital I/O channels) on additional slot bracket with flat ribbon cable to pin filed/IDC on boards) | | | |