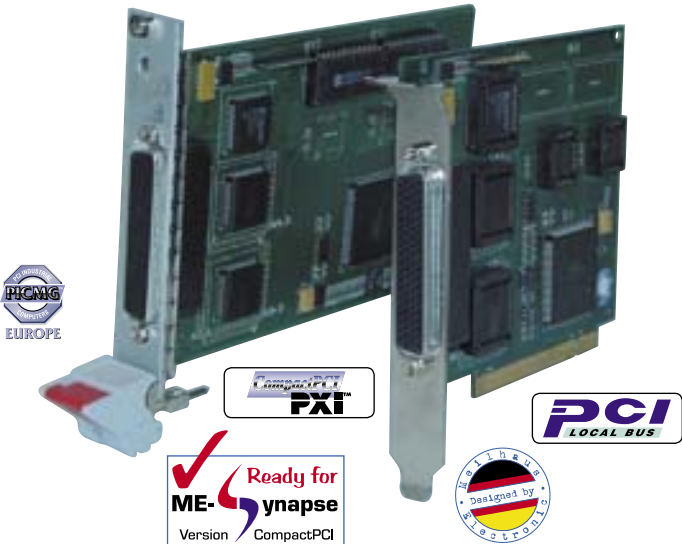


Combination of counters & digital for PCI, PXI/CompactPCI, USB **ME-1400 and MEphisto Digi**



Reliable quality, small price: The ideal solution, if you need "classic" 16 bit counters and TTL digital channels on one board. Even a pulse width modulation can easily be carried out with the ME-1400! Available for USB, PCI and PXI/CompactPCI.

- Up to **3, 6, 15 or 30** counters. 8254 compatible 16 bit counters. All lines (Clock, Gate, Out) TTL level, wired to D-sub.
- Counters **programmable independently**, can be **cascaded via software**.
- 1 or 10 MHz clock (quartz oscillator), independent from PC clock.
- **24 or 48 digital input/output channels**. TTL level.
- Plug'n'Play. Available for the bus platforms **StandardPCI** and **PXI/CompactPCI** (PCI Local Bus 2.1 compatible) and with ME-Synapse: **Ethernet/LAN, USB**.
- **USB version MEphisto Digi**: USB 1.1 full-speed. **Robust metal housing**. External power supply.



Ready for ME-Synapse, that means: You can use the CompactPCI versions of the ME-1400 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 2.6¹⁾**.
- Supports **Visual C/C++**, **Visual Basic**, **VEE Pro** (Windows), **LabVIEW** (Windows, Linux), **Python**.
- Programming examples.

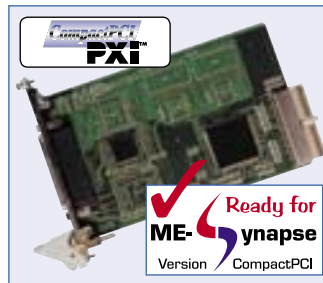
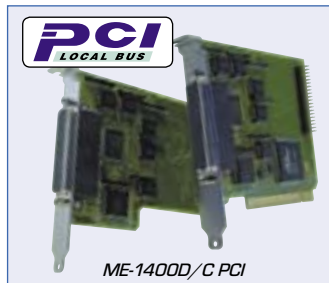
"Soft manuals" English and German for Acrobat Reader/PDF.

1) USB models MEphisto Digi not for Linux!



That's what users say about this product:

"Good installation, fast and good support."
Taken from our online poll



--- Specifications ---

| Digital I/O (TTL) | ME-1400 | ME-1400A | ME-1400B | ME-1400C | ME-1400D |
|-------------------------------|--|---|--------------------|--------------------|--------------------|
| Number | 24 (3x 8 bit port) | 24 (3x 8 bit port) | 48 (6x 8 bit port) | 24 (3x 8 bit port) | 24 (3x 8 bit port) |
| Type | TTL compatible. 8 bit ports, each port programmable as inputs/outputs. Input low: -0.5...+0.8 V ($I_{ILmax}=\pm 10 \mu A$); high: +2.0...5.5 V ($I_{IHmax}=\pm 10 \mu A$). Output low: Max. 0.45 V ($I_{OL}=1.7 mA$); high: Min. 2.4 V ($I_{OH}=-200 \mu A$) | | | | |
| Counters | ME-1400 | ME-1400A | ME-1400B | ME-1400C | ME-1400D |
| Number | - | 3 (16 bit) | 6 (16 bit) | 15 (16 bit) | 15 (16 bit) |
| Type | 8254 compatible. Can be cascaded via software. TTL level. All lines wired to connector. Input low: -0.5...+0.8 V ($I_{ILmax}=\pm 10 \mu A$); high: +2.2...6 V ($I_{IHmax}=\pm 10 \mu A$). Output low: Max. 0.45 V ($I_{OL}=2.2 A$); high: Min. 2.4 V ($I_{OH}=-400 \mu A$) | | | | |
| Quartz oscillator | 1 MHz/10 MHz software selectable; accuracy: $\pm 100 ppm (\pm 0.01\%)$. Clock available at D-sub connector. Clock output line can also be used as interrupt input on PCI/cPCI versions (not for USB), selection via software. | | | | |
| General | ME-1400 | ME-1400A | ME-1400B | ME-1400C | ME-1400D |
| Bus interface | ME-1400 PCI: 32 bit/33 MHz StandardPCI bus. PCI Local Bus 2.1 compatible. ME-1400 cPCI: 32 bit/33 MHz PXI/CompactPCI bus. PCI Local Bus 2.1 compatible. MEphisto Digi (ME-1400 USB): USB 1.1 full-speed | | | | |
| Size (mm) | PCI: ~174 x 98 PXI/CompactPCI: 160 x 100 (3 U Europacard). USB: Metal housing, ~115 (W) x 180 (D) x 50 without connector/rubber pads | | | | |
| Connectors | 78-pin D-sub female. MEphisto Digi (ME-1400 USB): USB connector and connector for power supply Models E: 37-pin D-sub female, pin out compatible with ME-14 ISA + second 37-pin D-sub female with slot bracket for version B Model C: 40-pin flat ribbon connector for connection of ME-1400D to C | | | | |
| Expandability (see accessory) | ME-1400 (not for E series!) | ME-1400A (not for E series!) | ME-1400B | ME-1400C | ME-1400D |
| Digital I/O ports | Relays or opto-isolation with ME-63Xtend or ME-UB series (all models except ME-UB37) | Relays or opto-isolation with ME-63Xtend (all models) | - | - | - |

Combination of counters & digital for PCI, PXI/CompactPCI, USB ME-1400 and MEphisto Digi



--- Ordering codes and features

ME-1400 and MEphisto Digi ---

| Model | 16 bit cnt. | IRQ | TTL digital I/O | Bus | Expand with... | | |
|-----------------|---------------|-----|-----------------|---------------|----------------|-------------------|---|
| PCI series | ME-1400 PCI | - | - | 24 (3x 8 bit) | PCI | ME-UB, ME-63Xtend | Scope of delivery: Board or USB box, ME-Power-CD, 78- or 37-pin (E series) mating plug. ME-1400C/D no mating plug, but ME AK-D78/1400CD special cable 1 m, with open ends. USB versions: USB cable, external power supply |
| | ME-1400A PCI | 3 | ✓ | 24 (3x 8 bit) | PCI | 63Xtend | |
| | ME-1400B PCI | 6 | ✓ | 48 (6x 8 bit) | PCI | - | |
| | ME-1400C PCI | 15 | ✓ | 24 (3x 8 bit) | PCI | - | |
| E series | ME-1400D EXP | 15 | ✓ | 24 (3x 8 bit) | (PCI) | - | |
| | ME-1400E PCI | - | - | 24 (3x 8 bit) | PCI | - | |
| | ME-1400EA PCI | 3 | ✓ | 24 (3x 8 bit) | PCI | - | |
| cPCI series | ME-1400EB PCI | 6 | ✓ | 48 (6x 8 bit) | PCI | - | |
| | ME-1400 cPCI | - | - | 24 (3x 8 bit) | PXI/CompactPCI | ME-UB, ME-63Xtend | |
| | ME-1400A cPCI | 3 | ✓ | 24 (3x 8 bit) | PXI/CompactPCI | ME-63Xtend | |
| MEphisto Digi | ME-1400B cPCI | 6 | ✓ | 48 (6x 8 bit) | PXI/CompactPCI | - | |
| | ME-1400 USB | - | - | 24 (3x 8 bit) | USB | ME-UB, ME-63Xtend | |
| MEphisto Digi A | ME-1400A USB | 3 | - | 24 (3x 8 bit) | USB | ME-63Xtend | |
| MEphisto Digi B | ME-1400B USB | 6 | - | 48 (6x 8 bit) | USB | - | |

Attractive bundles:

Buy the ME board of your choice bundled with accessory of your choice and save money! For example:

ME-SK ME-1400_ _ _ _

StartKit with: ME-1400x of your choice + cable of your choice + terminal block of your choice.

ME-PP ME-1400_ _ _ _

PowerPack with: ME-1400x of your choice + cable of your choice + terminal block of your choice + graphic software development environment VEE Pro in current full version.

■ Light green: Standard models, short delivery times. All other models: Special custom versions on request.



--- Recommended accessory for the ME-1400... ---

Terminal block with pluggable spring terminals (HQ cable recommend, especially if counters on models A, B, C, D are used):

| | |
|----------------|---|
| ME AK-D78/HQ/x | x = 0.5 m, 1 m or 2 m high quality cable . 78-pin D-sub male to female, 1:1 contacted. Metal housing and 2 lines of cable. |
| ME AB-D78M/S | Deluxe terminal block . 78-pin D-sub male auf pluggable spring terminals as well as 25-pin D-sub male to spring terminals. In a robust metal box or in a DIN rail mountable card carrier (-H). |
| ME AB-D78M/S-H | |

Alternative:

ME AK-D78/HQ-OE/1 In cases you don't want to use a terminal block: 1 m **high quality cable**. 78-pin D-sub male and open ends.

Alternative, if counters are not used, and/or for ME-1400 (versions without A/B/C/D):

| | |
|-------------|---|
| ME AK-D78/x | x = 0.6 m, 1 m or 2 m standard cable . 78-pin D-sub male to female, 1:1 contacted. |
| ME AB-D78M | Standard terminal block . 78-pin D-sub male to spring terminals. In a DIN rail mountable card carrier. |

For die E Serie (HQ cable empfehlenswert insbesondere bei Einsatz der Zähler auf Modell EA, EB):

| | |
|----------------|---|
| 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. |
| ME AK-D37/2 | 2 m standard cable . 37-pin D-sub male to female, 1:1 contacted. |
| ME AB-D37M | Standard terminal block . 37-pin D-sub male to spring terminals. In a DIN rail mountable card carrier. |

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.

Expanding the digital ports with ME-63Xtend:

| | |
|-------------------|---|
| ME AK-D78/1400 | Special cable . 78-pin D-sub male to 3x 78-pin and 1x 25-pin D-sub female. Connects ME-1400, ME-1400A or ME-1400B and 3x ME-63Xtend series. Counters connected through to 25-pin D-sub female. |
| ME-63Xtend series | External expansion boards , DIN rail mountable, with relays or opto-isolation. |

Alternative for ME-1400 and ME-1400A (not for versions B, C, D):

| | |
|------------------|---|
| ME AK-D78/HQ/x | x = 0.5 m, 1 m or 2 m high quality cable . 78-pin D-sub male to female, 1:1 contacted. Metal housing and 2 lines of cable. |
| ME-63Xtend Serie | External expansion boards , DIN rail mountable, with relays or opto-isolation. |
| ME AK-D25/HQ/1 | 1 m high quality cable . 25-pin D-sub male to female, 1:1 contacted. Metal housing. |
| ME AB-D25M | Terminal block . 25-pin D-sub male to spring terminals. |

Expanding the digital ports with ME-UB - ME-1400 (not for versions A, B, C, D):

| | |
|------------------|--|
| ME AK-D7815/1400 | Special cable . 78-pin D-sub male to 3x 15-pin D-sub male. Connects ME-1400 and 3x ME-UB series. |
| ME-UB Serie | External expansion boxes , with relays or opto-isolation. Use in any combination: ME-UB15, ME-UBRE, ME-UBOI, ME-UBOO. |

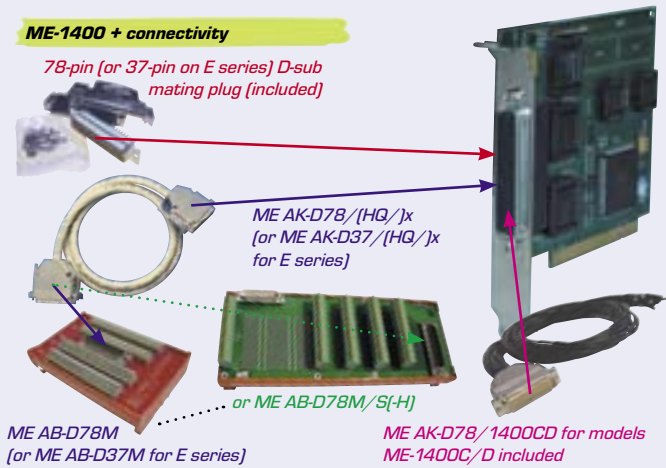
Further accessory:

| | |
|------------------------|---|
| ME AB-D78M/P-H | Deluxe terminal block . 78-pin D-sub male to IDC and prototyping array. In a DIN rail mountable card carrier (-H). |
| ME-Synapse LAN and 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. |

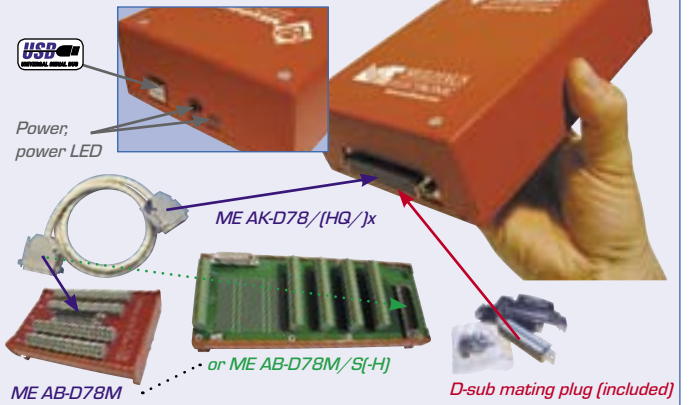
Combination of counters & digital for PCI, PXI/CompactPCI, USB ME-1400 and MEphisto Digi

ME-1400 + connectivity

78-pin (or 37-pin on E series) D-sub mating plug (included)



MEphisto Digi + connectivity

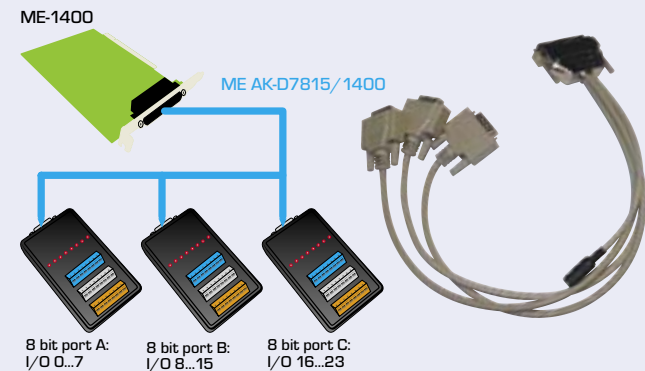


MEphisto Digi + ME-UB or ME-63Xtend



ME-UB

Connecting ME-UB series and ME-1400



Connecting ME-63Xtend series and ME-1400

