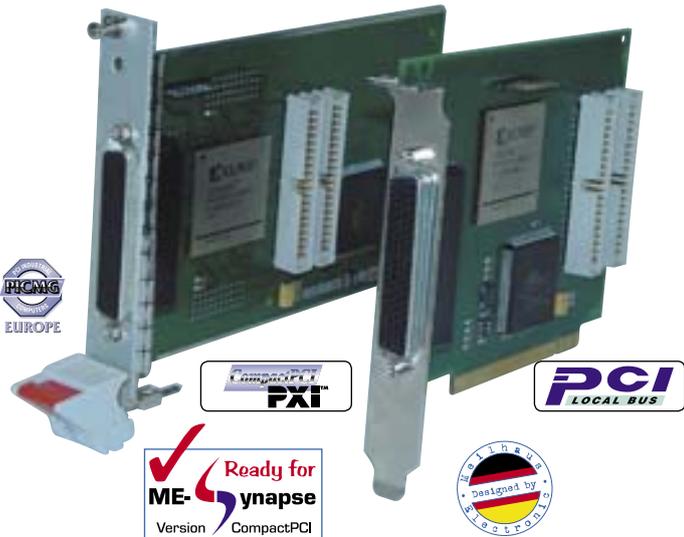


Multi-channel Digital interface - up to 128 channels

ME-1000



This board is a good choice, if you need a multitude of channels for industrial switching and/or the acquisition of digital statuses: It has up to 64 or 128 digital I/O lines, grouped in 32 bit ports. Each port can be programmed as input or output. You can add opto-isolation or relays for all channels, using optional external DIN rail modules!

- 64 (2x 32 bit ports) or 128 (4x 32 bit ports) TTL digital input or output channels.
- Each port programmable as inputs or outputs. Ports configured as **outputs** with **read-back**.
- ME-1000/128 = ME-1000/64 + extender ME-1001 (with PCI or PXI/CompactPCI slot bracket, second D-sub female, flat ribbon cable).
- All lines with standard TTL level. Expandable with external board series ME-63Xtend with **relays or opto-isolation**: Control up to 128 relays. Or make use of up to 128 opto inputs/outputs.
- 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**.



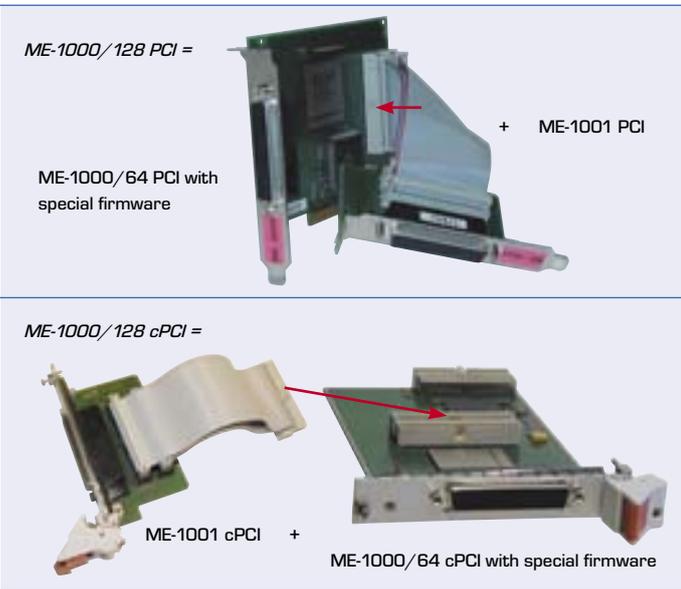
Ready for ME-Synapse, that means: You can use the CompactPCI versions of the ME-1000 with the **ME-Synapse LAN in your ethernet** or with the **ME-Synapse USB at the USB!** For more information see the ME-Synapse.

--- Software included on CD: ---

- ME-IDS and ME-IDC driver and configuration tool for **Windows XP, 2000, Vista and GNU Linux 2.6**.
 - Supports **Visual C/C++**, **Visual Basic**, **VEE Pro** (Windows), **LabVIEW** (Windows, Linux), **Python**.
 - Programming examples.
- "Soft manuals" English and German for Acrobat Reader/PDF.

--- Ordering codes and features ME-1000 ---

Model	TTL digital inputs/outputs	Bus
ME-1000/64 PCI	64 (2x 32 bit ports)	PCI
ME-1000/128 PCI	128 (4x 32 bit ports)	PCI
ME-1000/64 cPCI	64 (2x 32 bit ports)	PXI/CompactPCI
ME-1000/128 cPCI	126 (4x 32 bit ports)	PXI/CompactPCI
Scope of delivery	Board, ME-Power-CD, 1x (ME-1000/64) or 2x (ME-1000/128) 78-pin mating plug. Note: The ME-1000/128 PCI or cPCI is a ME-1000/64 PCI or cPCI with special firmware + an expansion board ME-1001 PCI or cPCI, see picture	
Attractive bundles:	Buy the ME board of your choice bundled with accessory of your choice and save money! For example:	
ME-SK ME-1000/___	StartKit with: ME-1000/x of your choice + cable of your choice + terminal block of your choice	
ME-PP ME-1000/___	PowerPack with: ME-1000/x of your choice + cable of your choice + terminal block of your choice + graphic software development environment VEE Pro in current full version.	
Example - bundle with ME-1000 and ME-Neuron		
ME-Neuron 1000/64	Complete ethernet or stand alone digital station: ME-Neuron and 64 channels TTL digital I/O board ME-1000/64	



--- Specifications ---

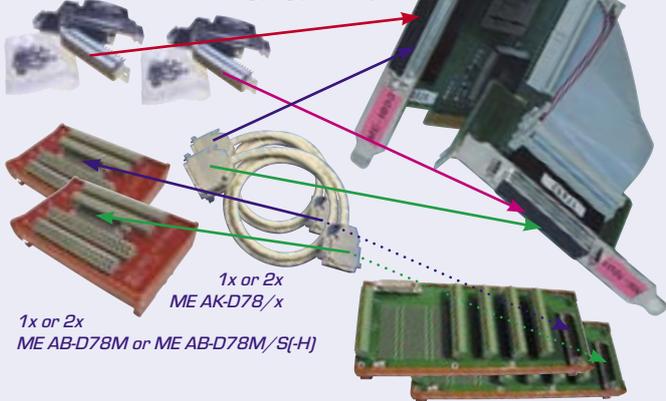
Digital I/O	ME-1000/64	ME-1000/128
Number, type	64 TTL I/O channels (2x 32 bit ports)	128 TTL I/O channels (4x 32 bit ports)
Voltage	Each port programmable as inputs/outputs; outputs with read-back Input low: 0 V...+0.8 V (I _{Lmax} =±10 µA); input high: +2.0 V...+5.5 V (I _{Hmax} =±10 µA); output low: 0...+0.8 V (I _{OL} =20 mA); output high: Min. 2.4 V (I _{OH} =-4 mA)	
General	ME-1000/64	ME-1000/128
Bus interface	32 bit StandardPCI bus or PXI-/CompactPCI bus. PCI Local Bus 2.1 compatible	
Size (mm)	PCI: ~ 136 x 107; PXI/CompactPCI: 160 x 100 (3 U Europacard format)	
Connectors	78-pin D-sub female Additional 2x 40-pin IDC on-board connector; expansion board ME-1001 with PCI slot bracket, second 78-pin D-sub female and 2x flat ribbon cable	
Expandability (see accessory)		
Digital I/O ports	Relays or opto-isolation with ME-63Xtend (except ME-634). Note: ME-63Xtend boards cannot be directly connected to an ME-1000 using 1:1 cable ME AK-D78! A special cable ME AK-D78/1000 is required! When selecting the ME-63Xtend boards, please consider the 32 bit wide ports of the ME-1000: One complete 32 bit port is input or output.	

Multi-channel Digital interface - up to 128 channels

ME-1000

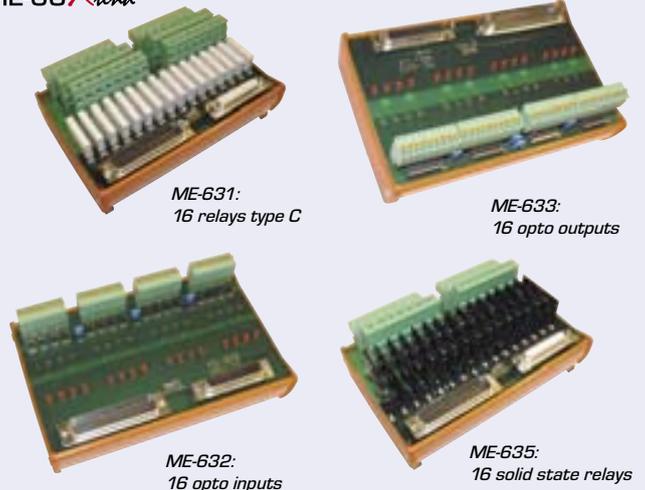
ME-1000 + connectivity

1x (ME-1000/64) or 2x (ME-1000/128) D-sub mating plug (included)



1x or 2x ME AB-D78M or ME AB-D78M/S(-H)

ME-63Xtend



ME-631: 16 relays type C

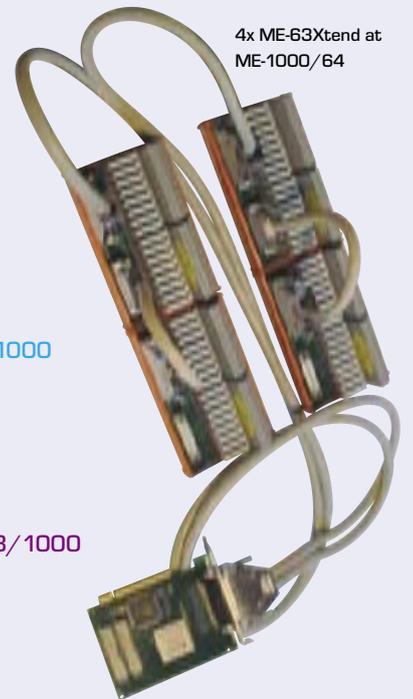
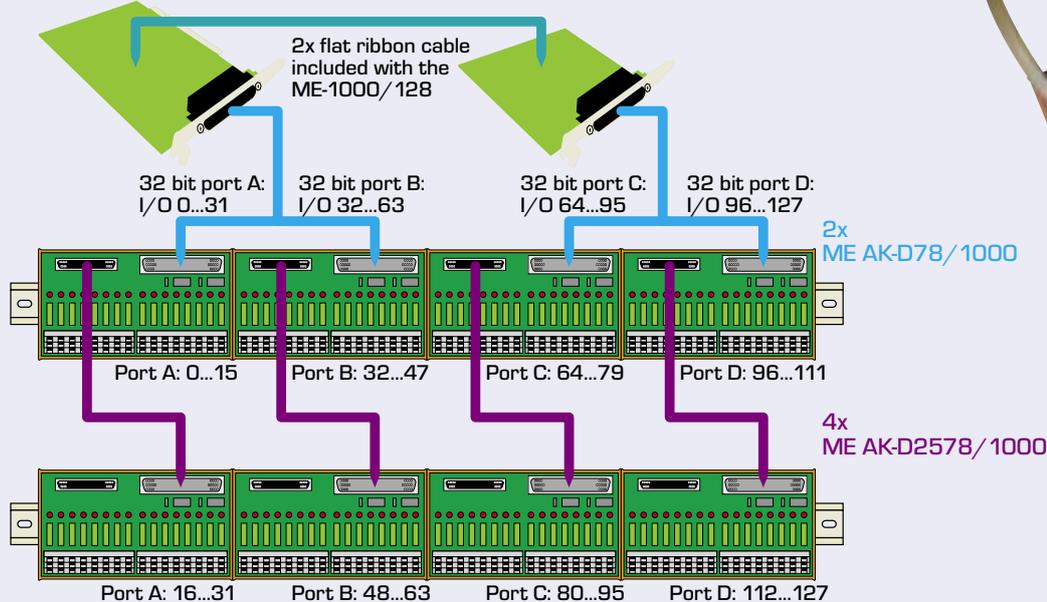
ME-633: 16 opto outputs

ME-632: 16 opto inputs

ME-635: 16 solid state relays

How to connect ME-63Xtend to ME-1000:

ME-1000/64 + ME-1001 = ME-1000/128



Please note the 32 bit wide ports of the ME-1000: The ME-63Xtend boards in series at one port (purple connections) have to be either **both input types** (ME-632: 16 opto inputs) or **both output types** (ME-631: 16 relays or ME-633: 16 opto outputs or ME-635: 16 solid state relays). The ME-634 (8 opto inputs and 8 opto outputs) **cannot be used** with the ME-1000.

Of course, smaller systems with fewer ME-63Xtend boards are possible at any time. As an example, see picture on the right: ME-1000/64 with 4x ME-631.



--- Recommended accessory for the ME-1000... ---

Terminal block with pluggable spring terminals:

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/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	
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 with non-pluggable spring terminals:

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.

Expanding the digital ports:

ME AK-D78/1000	1 m cable . 78-pin D-sub male to 2x 78-pin D-sub female. Connects ME-1000 or ME-1001 with 2x ME-63Xtend
ME AK-D2578/1000	0.5 cable . 25-pin D-sub male to 78-pin D-sub female. Connects an ME-63Xtend at an ME-1000 or ME-1001 with one further ME-63Xtend
ME-63Xtend Serie	External expansion boards , DIN rail mountable, with relays or opto-isolation. 16 channels. With the ME-1000 you can use ME-631, ME-632, ME-633, ME-635 in an appropriate combination (note the ME-1000's 32 bit wide ports!).

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.