

# The Digital Allround Interface Box

MEphisto Switch - USB Digital I/O with Opto-Isolation, Relays, TTL Channels

**Model:**  
MEphisto  
Switch/ME-630

**Platform:**  
 PCI  
 PXI/ cPCI  
 USB  
 Other

**Functions:**  
 Analog I/O  
 Digital I/O  
 Temp./°C  
 Interfaces  
 Instrument  
 Logger  
 Isolation  
 Accessory  
 Software



- 8 or 16 relays type C (change over), for current up to 2 A/30 V (short time current for a single relay can be up to 3.5 A).
- The relays can be used for **small signals** (material: Silver, gold plated, max. resistance 30 mΩ). This feature is lost, if signals with higher currents are switched.
- **8 TTL digital inputs.**
- **16 TTL digital I/O channels**, expandable with relays or opto-isolation with the ME-63Xtend and ME-UB series.
- **8 opto-isolated inputs** (24 V level).
- **Robust metal housing.**
- External power supply.
- Also available as Plug&Play PCI, PXI / CompactPCI board.

**Software:**

ME-Power-CD included:

- Driver for Windows 98SE/Me, 2000, XP, Agilent VEE and LabVIEW
- "Soft manuals" in English and German for Acrobat Reader/PDF



**MEphisto®**

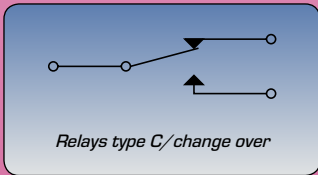


**Specifications:**

<b>Relays</b>	
Number, type	Depending on model 8 or 16, type C change-over; NAIS APE3005 according to EN 60255, EN 60335, EN 60730, EN 60950, EN 60065, EN 50178
Voltage/current	Continuous (25°C): 30 VDC/2 A; 30 VAC/2 A; short time, single relays: 3,5 A
Contact ratio	Material: Silver, gold plated. Max. resistance at 6 VDC/1 A: 30 mΩ
Lifetime	Mechanic, at 180 cpm 5x 10 <sup>6</sup>
<b>Opto Inputs (24 V)</b>	
Number	8
Voltage	Low: 0...12 V; high: 13...24 V; input current at 24 V: 7 mA
Isolation	Up to 500 VDC
Rate	Max. 1 kHz (supression of μs transients)
<b>Digital Inputs and Digital I/O Channels (TTL)</b>	
Number, type	8 inputs (TTL) and 2x 8 bit ports of I/O channels, each port programmable as inputs or outputs
Voltage, inputs	Low: -0.5 V...+0.8 V (I <sub>Lmax</sub> =±10 μA); high: +2.0 V...5.5 V (I <sub>Hmax</sub> =±10 μA)
<b>General Data</b>	
Interface	USB 1.1 Full-Speed
Housing	Metal, ~ 115 (B) x 180 (T) x 50 (H) without connectors/rubber pads
Connectors	78-pin D-sub female, 25-pin D-sub female (16 TTL digital I/Os), USB B, power

**Ordering Code:**

<b>MEphisto Switch8 (ME-630/8 USB)</b>
USB digital box with 8 relays; incl. power adaptor
<b>MEphisto Switch16 (ME-630/16 USB)</b>
USB digital box with 16 relays; incl. power adaptor
<b>Also available:</b>
<b>ME-630/8 or /16 PCI or cPCI</b>
Plug-in board for PCI or PXI/CompactPCI
<b>Accessories:</b>
<b>ME AK-D78/1</b> <span style="float: right;"><b>1 m</b></span>
<b>ME AK-D78</b> <span style="float: right;"><b>2 m</b></span>
1 m or 2 m cable, 78-pin D-sub male-female.
Note: Cable can only be used for current up to 0.5 A per relay. For higher currents please use cable with a larger diameter!
<b>ME AB-D78M</b>
Terminal block 78-pin D-sub male and spring terminals
<b>ME-63Xtend series</b> <span style="float: right;"><b>ME-UB series</b></span>
External boards or boxes, use to expand the 16 TTL digital I/O channels of MEphisto Switch with relays or opto-isolation
<b>ME AK-D2578/4000</b> <span style="float: right;"><b>ME AK-D2515/4000</b></span>
Cable for ME-63Xtend or ME-UB and MEphisto Switch
<b>Web Link: <a href="http://www.meilhaus.com/e_me">www.meilhaus.com/e_me</a></b>



**Model Overview:**

Relays	Inputs			TTL Digital I/O <sup>2)</sup>	Model	Bus
	Opto	TTL	TTL Interrupt			
16 <sup>1)</sup>	8	8	-	16 (2x 8 bit ports)	MEphisto Switch16 (ME-630/16 USB)	USB
8 <sup>1)</sup>	8	8	-	16 (2x 8 bit ports)	MEphisto Switch8 (ME-630/8 USB)	USB
16 <sup>1)</sup>	8	8	2	16 (2x 8 bit ports)	ME-630/16 PCI	PCI
8 <sup>1)</sup>	8	8	2	16 (2x 8 bit ports)	ME-630/8 PCI	PCI
16 <sup>1)</sup>	8	8	2	16 (2x 8 bit ports)	ME-630/16 cPCI	PXI/CompactPCI
8 <sup>1)</sup>	8	8	2	16 (2x 8 bit ports)	ME-630/8 cPCI	PXI/CompactPCI

1) Type C/change-over

2) Compatible with ME-63Xtend series, using cable ME AK-D2578/4000