



## Master Clock

# CompuTime Center CTC

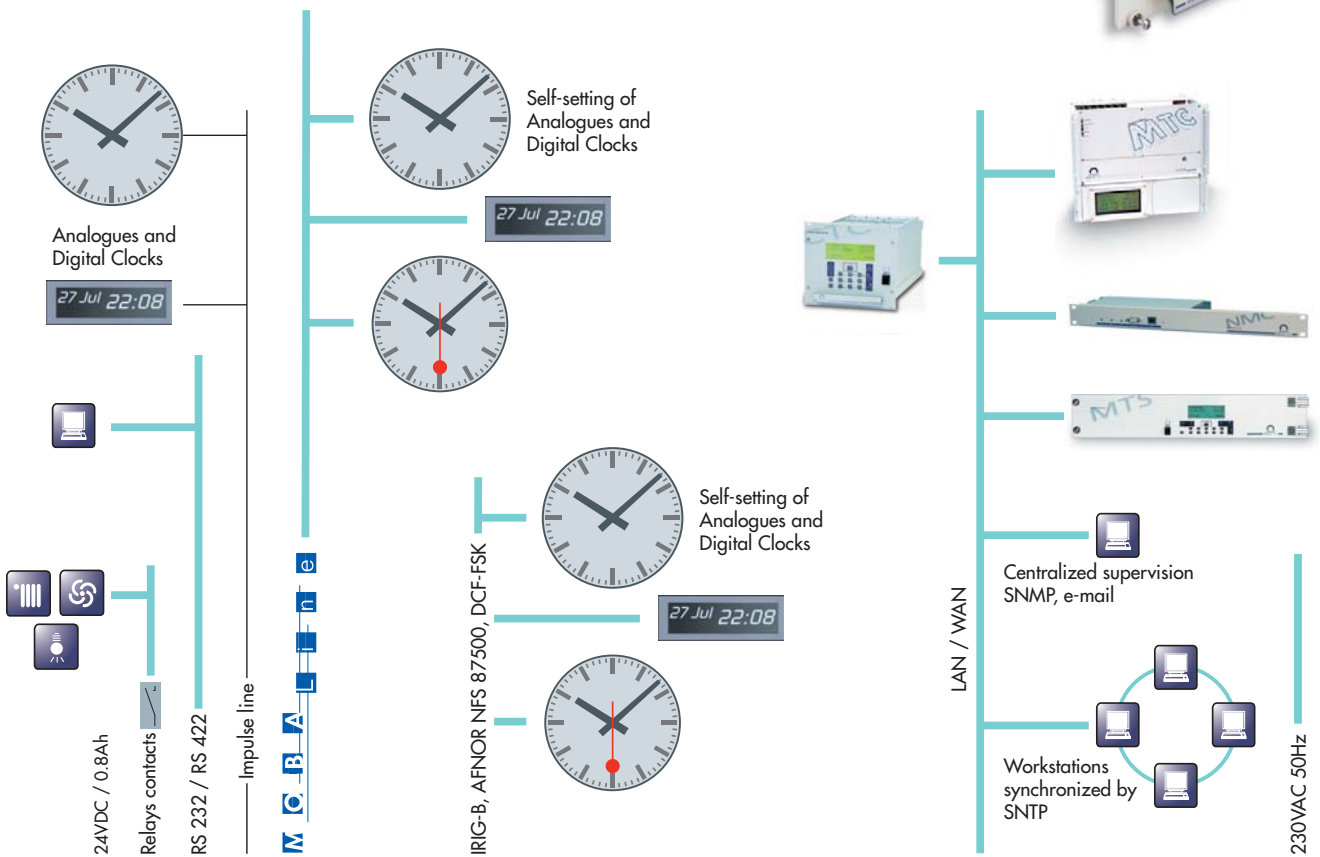
The reliable, modern and modular concept with its configuration flexibility gives an unconditional asset to any new installation. Due to its multi-line architecture the CTC is suitable for a wide range of applications.

The different types of outputs provide the facility of controlling traditional or self-setting slave clocks as well as LAN based systems.

# CompuTime Center CTC

## CTC à la carte

The CTC's modular design allows numerous different configurations according to your requirements.



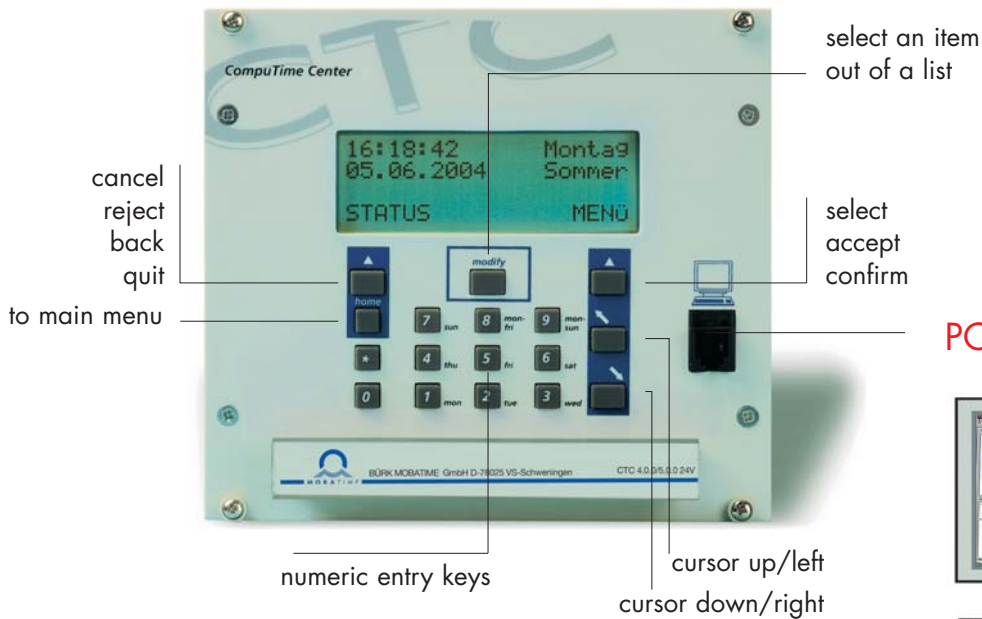
AB 2.0.8 Battery Back-up	AB 9.0.0 Programm Module	AB 4.1.0 Serial Communication	AB 4.0.0 Impulse Line	AB 4.3.0 MOBALine Driver	AB 4.2.0 Time Code Generator	AB 1.3.3 Network Processor	AB 5.0.0 Power Supply
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CTC's Selection of Application Boards



## User-friendly

Easy and intuitive programming, configuration and supervision of the master clock due to CTC's intelligible user interface.



## PC-Link



Windows application to edit and download:

- Switching programs for relays
- Time zones table
- Software updates

## World Time Management

Each output is individually allocated to one of the 100 entries of the time zone table determining:

- Time offset to UTC (Universal Time Coordinated)
- Beginning and end of daylight saving time



## CTC's General Specifications

Master clock equipped with: alphanumeric display 4x20 characters and backlight.  
RAM and Real Time Clock with battery back-up. Flash-memory for application program.  
Three slots for application boards.

<b>Dimensions</b>	Rack-mounting case 3HU x 28UW (142 x 128 x 230mm)
<b>Power Supply</b>	24–60VDC or 230VAC (50/60Hz) +/-10% using AB 5.0.0 or AB 5.0.1
<b>Ambient Temperature</b>	0 to 50°C/10–90% relative humidity, non condensing
<b>EMC and Safety Test</b>	according to EN50081-1 / EN61000-6-2 / EN50121-4 / EN60950
<b>Accuracy</b>	absolute with radio receiver DCF or GPS, +/- 0.1 s per day at 20°C +/- 5°C (autonomous operation)
<b>Display and Keyboard</b>	4x20 characters, alphanumeric, backlight, 17 keys, numerical 0–9
<b>Synchronization Inputs</b>	1 x RS 232, 1 x RS 422, 1 x DCF 77 , 3 inputs for twilight switches.
<b>Synchronization Outputs</b>	1 x 1pps with GPS only, 1 x DCF 77 current-loop synthetic code. Isolated alarm contacts. Internal or external battery back-up is available.

## Applications



Airports



Railway Stations



Underground Stations



Hospitals



Schools, Administrations



Public Buildings



Industries

## CTC's Application Board

	Power Supply	Slot 1	Slot 2	Slot 3	Battery
<b>AB 4.0.0 4x Impulse Line Driver</b> each line selectable as second, half-minute, 1/8-minute, minute impulse or DCF, up to 1A per line		●	●		
<b>AB 4.0.1 2x Impulse Line Driver</b> each line selectable as second, half-minute, 1/8-minute, minute impulse or DCF, up to 1A per line		●	●		
<b>AB 4.1.0 2x Serial Communication</b> 2 independent RS 232 / RS 422 interfaces (mode selectable), plain text script for versatile configurations of the serial time telegrams, time transmission periodically or on request, supervision of the connected device by loop-back of the time information or by checking alive-messages, 2 strobe pulse outputs: photocoupler, 1ps, 1ppm, 1pph or 1ppd, selectable, +/-100µs if synchronized with GPS receiver, adjustable compensation of propagation delay.		●	●	●	
<b>AB 4.3.0 2x MOBALine Driver</b> to control self-setting analogue and digital clocks, computer interfaces and switching relays, switching program for up to 64 relays (channels).		●	●		
<b>AB 4.2.0 2x Time Code Generator</b> Output IRIG-B, AFNOR NFS 87500, DCF-FSK RI < 50Ω, Ua = 0.7 Veff, adjustable ±10 dB		●	●	●	
<b>AB 1.3.3 Network Processor Module</b> Connection via TCP/IP, Ethernet to LAN/WAN. Numerous services: SNTP-server, SNTP-client (as CTC's master clock), SNMP/e-mail alarm reporting		●	●	●	
<b>AB 9.0.0 4x Program Module</b> 4 relays outputs (make contact), 230VAC with up to 1250VA load each. The intelligible operation control allows an easy programming, as an option: download-software for PC		●	●	●	
<b>AB 5.0.0 Mains power supply and battery charging</b> Input: 230VAC (50/60Hz) +/-10%, Output 24V / 2.5A	●				
<b>AB 5.0.1 Mains power supply and battery charging</b> Input: 230VAC (50/60Hz) +/-10%, Output 48V / 1.2A	●				
<b>AB 5.0.2 Mains power supply and battery charging</b> Input: 230VAC (50/60Hz) +/-10%, Output 60V / 1A	●				
<b>AB 2.0.8 Internal battery</b> 24V / 0.8Ah					●
<b>AB M24-3.2 Battery supply module</b> 24V /3.2 Ah, 3x 28 units (external battery)					