



Versatile Master Clock –
ideal for Clock Systems of small or medium size.

EuroTime Center ETC

The EuroTime Center ETC operates conventional clock systems with impulse controlled slave clocks as well as modern, self-setting MOBALine installations. Easy and intuitive operation due to ETC's intelligible user interface. ETC's power

relays control light, heating, signalling-bells and other devices by weekly periodic and/or date related programs. Absolute precision of ETC's internal clocks can be achieved by synchronization to an external time-reference such as DCF 77 or GPS.

EuroTime Center ETC

Technical Data	ETC 12 R	ETC 14 R	ETC 24 R
Slave Clock Lines	1	1	2
Slave clock lines, configurable as 1 minute-, 1/2 minute-, 1 second-impulse and DCF-time-code.	✓	✓	✓
Each slave clock line configurable separately as impulse- or MOBALine-output		✓	✓
Output voltage, alternating polarity	24 V	24 V MOBALine	24 V MOBALine
Output current, impulse line, sum of all slave clock lines	500 mA	700 mA	1000 mA
Maximal number of slave clocks (at 6 mA load per clock)	80	110	160
Output current, MOBALine, sum of all slave clock lines		500 mAeff	700 mAeff
Maximal number of slave clocks (at 6 mA load per clock)		80	110
Adjustable minimal- and maximal-current-limit (Alarm, if current exceeds, respectively drops below the set limit)			✓
Line outputs overload and short-circuit protected. Automatic adjustment of the slave clocks after recovering from an overload, short-circuit or power failure.	✓	✓	✓
Switching Circuits	2	4	4
Switch-over contacts 230 VAC / 10A	✓	✓	✓
64 external switching circuits on MOBALine Channel Relays (option)		✓	✓
Inputs with logical AND / OR combination for allocateable channels (for example to connect twilight sensors).			3
Weekly periodic and/or date dependent switching programs	✓	✓	✓
Switching commands are activated on the minute.	✓	✓	✓
Short-time activations (signaling functions) are adjustable within 1 to 99 sec.	✓	✓	✓
Capacity: 1000 commands, consisting of time, function and day(s) of week	✓	✓	✓
Editing switching programs on the keyboard	✓	✓	✓
Editing switching programs on a PC. Software "Switch Editor" required (option).	✓	✓	✓
Program download over a serial interface into the master clock (connector terminal on the front panel).	✓	✓	✓
DCF 77 - Time-Code Output (current loop passive)	✓	✓	✓
ASCII-string Time-Code Output (RS 232, RS 422, once a second, definition IF 482)			✓
Operation control			
Alphanumeric display with 4 lines and backlight. Numeric keyboard. User friendly menu guidance. Language English or German (selectable)	✓	✓	✓
Calculation of the Local Time according to the Time Zone			
Automatic, pre-programmed daylight-saving-time change	✓	✓	✓
80 pre-defined Time Zone entries,	✓	✓	✓
20 entries freely programmable on a PC for download into the Master Clock	✓	✓	✓
Any Time Zone entry can be allocated to each input and output separately. For example local time and UTC on different slave clock lines	✓	✓	✓
20 local times on MOBALine (according to allocateable Time Zone entries) with individually pre-programmed daylight-saving-time changes		✓	✓
Internal Quartz time-base			
Automatic calibration of the quartz time-base to an external time-reference	✓	✓	✓
Accuracy without external time reference: ±0,1 sec. / day	at 20...25°C	at 20...25°C	at 20...45°C
External Time Reference			
Input for DCF 77 & MSF 60-time-code-receivers (current loop, DCF 450, AM 10)	✓	✓	✓
Input for GPS-time-code-receiver (current coop, GPS 3148)	✓	✓	✓
RS 422 Interface		✓	✓
to connect a GPS 3048 time-signal-receiver (NMEA, TSIP)		✓	✓
IF 482 serial time telegrams		✓	✓
Potential-free make-contact to signalize alarms			✓
Dimensions, 19", 2 height units, w x h x d (mm)	483 x 88 x 80	483 x 88 x 80	483 x 88 x 80
Operating temperature, max. 95% rel. humidity, non condensing	0...50°C	0...50°C	0...50°C
CE conformity, EN 60950, security, protection class I EN 61000-6-3, emissions EN 50121-4, immissions (increased requirements for railways)	✓	✓	✓
Power supply / power consumption	230 VAC ±10% 50 Hz max. 20 VA	85...250 VAC ±10% 50/60 Hz max. 45 VA	85...250 VAC ±10% 50/60 Hz max. 60 VA
DC-power supply 22 ... 30 V (instead of mains power)	<600 mA	< 1,5 A	< 2 A
Battery-Pack (option) 2,3 Ah / 24V	✓	✓	✓