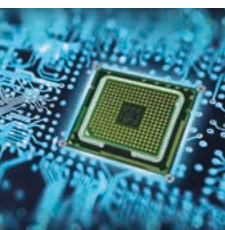


# Master Clock/Signalling Master Clock

DCF77, GPS or LAN/NTP controlled



**Master Clocks/  
Signalling  
Master Clocks  
and extras**

Type series

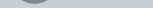
**921**

Type series

**925**



**NTP**



10.921.122 shown

## Typical performance data

### Control of slave clocks

- 1, 2 or 4 slave clock lines
- Line voltage 12 V or 24 V
- Line mode may be selected as
  - alternating polarity minute pulse
  - alternating polarity half-minute pulse
  - alternating polarity second pulse
  - DCFport24 telegram
  - DCFport24 and minute pulse, parallel operation of conventional slave clocks and DCFport24 telegram slave clocks on a single slave clock line.
- Pulse duration is adjustable from .2 sec to 9.9 sec.
- Total output power is 1 A at 24 V line voltage to control up to
  - 160 conventional slave clocks (at 6 mA/24 V each) or up to
  - 50 PEWETA DCFport24 telegram slave clocks, expandable by using a pulse amplifier (Item Number 10.930.124), see page 182.
- Optional power outage reserve, selectable for individual slave clock lines. A rechargeable 12 V/1.5 Ah NiMh battery provides for continued operation of the master clock and all connected clocks in case of a mains power outage.

- Upon return of mains power (e. g. after a mains outage) all connected clocks immediately readjust to current time.
- Slave clock lines with voltage and current surveillance. Mains power outage, overload (or low voltage when operating in memory mode) in the clock control line will cause an alarm by red LED as well as an alarm flag in the display and messages via network as SYSLOG or SNMP.
- Slave clocks will automatically be stopped when low voltage is detected.
- Secondary Master Clocks for expanding the clock system may be synchronised by the DCFport24 output.
- For the control of world time displays, freely configurable and pre-programmed zone times are included.
- 1 RS232 serial interface (output) is available for continuous transmission of time-and-date information in ASCII format.

### Signalling device

- 0, 2 or 4 programmable signal contacts (switch points/free-floating contacts) capable of 250 VAC/2 A
- Choice of program run for a day, a week or a year
- 300 switch actions programmable
- ON/OFF switching or pulse action as well as suppress and release functions

- Fastest possible switching sequence: 1 second
- Fixed-program calendar through 2099
- Data retention on power outage > 5 years.

### Network

- Ethernet port (RJ45)
- Easy set-up by web browser. Program slave clock lines, switch actions and system settings from a PC, a tablet or a smartphone
- Ethernet IEEE 802.3 10/100BASE-T: HTTP, NTP, (S)NTP, DHCP, SYSLOG, SNMP

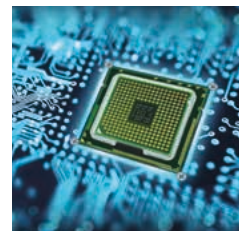
### Additional performance data

- Radio control by DCF77 (option)
- Radio control by GNSS/GPS-GLONASS-GALILEO (option)
- NTP/Network Time Protocol input terminal (RJ45) for synchronisation by LAN (option)
- Alphanumeric LCD display for user-friendly dialog-type navigation, time-and-date readout and alarm indications
- PIN-coded keyboard lock
- A temperature compensated crystal oscillator (TCXO) ensures a deviation of less than 0.1 seconds/day during autonomous operation
- USB 2.0 Type A port for software updates by USB stick.

Technical data		
Case	width x height x depth	cir. 236x239x85 mm
	material	ABS
	colour	RAL 7035 (light grey)
	weight	cir. 2.5 kg (incl. power outage batteries)
Milieu	VDE classification	I
	protection grade (EN 60529)	IP 32
	surrounding temperature	0 °C up to 40 °C
Electrical values	mains voltage	220..230 V AC/50...60 Hz
	power consumption	1.5...38 VA
	line voltage/pulse mode	12 V or 24 V
Total power output	24 V minute pulse	1000 mA max. (for up to 160 slave clocks at 6 mA)
	24 V second pulse	500 mA max. (for up to 80 slave clocks at 6 mA)
	DCFport24 telegram 24 V	600 mA max. (for up to 50 slave clocks at 12 mA)
	DCFport24+ minute pulse 24 V	600 mA max. (for up to 50 slave clocks at 12 mA)
Network	topology	Ethernet IEEE 802.3
	bit rate	10/100BASE-T
	connector	RJ45
	network configuration	DHCP/manually

Type	Number of slave clock lines	Number of signalling contacts	Power outage reserve	Item No.	€ each
Master Clock	1	none	no	10.921.010	860.-
	1	none	yes	10.921.110	1,020.-
Signalling Master Clock	1	2	no	10.921.012	1,060.-
	1	2	yes	10.921.112	1,220.-
Master Clock	2	none	no	10.921.020	960.-
	2	none	yes	10.921.120	1,120.-
Signalling Master Clock	2	2	no	10.921.022	1,180.-
	2	2	yes	10.921.122	1,340.-
	2	4	no	10.921.024	1,400.-
	2	4	yes	10.921.124	1,560.-
Master Clock	4	none	no	10.921.040	1,200.-
	4	none	yes	10.921.140	1,360.-
Signalling Master Clock	4	4	no	10.921.044	1,630.-
	4	4	yes	10.921.144	1,790.-

Options	Suffix	Surcharge € each
Input for GPS radio control, incl. GPS aerial (IP 65/EN 60529)	-95	695.-
NTP client for system time synchronisation via LAN	-98	179.-
NTP server for synchronising NTP clients via LAN incl. NTP client for system time synchronisation via LAN	-99	349.-



## Master Clocks/ Signalling Master Clocks and extras

Type series

**921**

Type series

**925**



## DCF77 Receiving Aerial for all type series 921 Master Clocks



03.925.111 shown

The DCF77 time signal telegram, as transmitted by the German time signal transmitter at Mainflingen near Frankfurt/Main, is a superior time standard for synchronization and automatic change from summer to winter time of radio controlled stand-alone clocks and master/slave clock systems. This PEWETA DCF77 aerial provides time-and-date information to all PEWETA Master Clocks and Signalling Master Clocks.

- Weatherproof plastic case (IP 68), for indoor/outdoor mounting, dimensions (WxHxD) cir. 100x65x37 mm
- Stainless steel mounting bracket
- 5 m connecting wire (LIYCY 4x0,25 mm<sup>2</sup>) included in delivery shipment, may be extended to a maximum length of 100 m.

Type	Item No.	€ each
External DCF77 receiving aerial (IP 68), for PEWETA Master Clocks	03.925.111	169.-