PEWETA CLOCKS

Master Clocks/ Signalling Master Clocks and extras

Type series
921

Type series
925

Master Clock/Signalling Master Clock
DCF77, GPS or LAN/NTP controlled
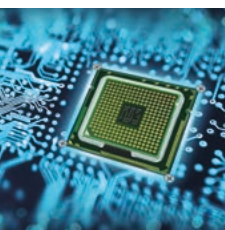
NTP

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 176.
- 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. 236 x 239 x 85 mm
	material	ABS
	colour	RAL 7035 (light grey)
	weight	cir. 2.5 kg (incl. power outage batteries)
Milieu	VDE classification	I
	protection grade (EN 60 529)	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 to160 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
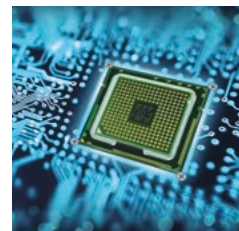
Type	Number of slave clock lines	Number of signalling contacts	Power outage reserve	Item No.	€ each
Master Clock	1	none	no	10.**921**.010	829.–
	1	none	yes	10.**921**.110	989.–
Signalling Master Clock	1	2	no	10.**921**.012	1,025.–
	1	2	yes	10.**921**.112	1,185.–
Master Clock	2	none	no	10.**921**.020	930.–
	2	none	yes	10.**921**.120	1,090.–
Signalling Master Clock	2	2	no	10.**921**.022	1,140.–
	2	2	yes	10.**921**.122	1,300.–
	2	4	no	10.**921**.024	1,360.–
	2	4	yes	10.**921**.124	1,520.–
Master Clock	4	none	no	10.**921**.040	1,160.–
	4	none	yes	10.**921**.140	1,320.–
Signalling Master Clock	4	4	no	10.**921**.044	1,580.–
	4	4	yes	10.**921**.144	1,740.–

Options	Suffix	Surcharge € each
Input for GPS radio control, incl. GPS aerial (IP 65/EN 60 529)	–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.–

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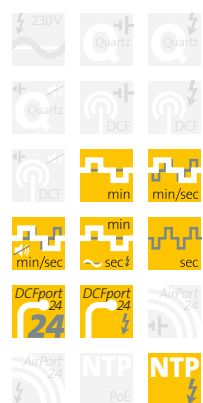
Type series
925

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 (W x H x D) cir. 100 x 65 x 37 mm
- Stainless steel mounting bracket
- 5 m connecting wire (LIYCY 4 x 0,25 mm²) 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.–

All prices are subject to change without notice, packing and shipping cost (see page 185) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2024. If you have any questions or require additional information, please contact us, we will gladly give advice.