

*QW-TIME III is the complete line of products for operating, controlling and regulating TIME.*



*QW-TIME comprises a wide range of Master Clocks (WDP-Q), Master Clock Programmers (WDP-Y) and Programmers (WYP) for operation and control of Slave Clocks, Digital Clocks and Time Recorders as well as for controlling and regulating energy and consumers.*

*Example shown is the Master Clock Programmer WDP-Y8 with minute impulse output and 8 relay outputs.*

## CHARACTERISTICS AND ADVANTAGES

### General

- Fully automatic correction of summer/winter time and preprogrammed calendar.
- Easy to program by simple YES/NO instructions over the easy to read LCD display.
- To achieve absolute accuracy, radio synchronization with the transmitters of time code signals type DCF-77 (Germany), MSF Rugby (Great Britain) or GPS (Global Positioning System) is available as option.
- Electronic short circuiting protection which resets automatically, transient protection, as well as protection against overload.
- LED-indication of power on, minute impulse output, activated relay output, alarm and receipt of time code signal.
- Impulse system, impulse duration and type of time selectable.
- Built in serial communication port type RS232/485 for computer time and remote control.
- Relay output for alarm (only Programmers and Master Clock Programmers).

### Master Clocks and Master Clock Programmers

- Minute impulse output, seconds impulse output with high and reliable accuracy.
- 72 hours impulse memory.
- After a power failure the connected slave clocks are automatically reset by rapid impulses.
- In case of short circuiting on the slave clock line, resetting of the connected Slave Clocks are automatically made.

### Master Clock Programmers and Programmers

- From 2 up to 8 relay outputs, with expansion up to 64 relay outputs.
- Manual 3-pos switch for relay output, ON / OFF / AUTOMATIC.
- 800 signal points (control functions) can be programmed over the relay outputs. Repeating daily function on a certain output only requires 1 signal point.
- ON/OFF and signal/pulse 1-99 secs. can be programmed for day, week, year or to follow a schedule.
- ON/OFF and signals can be programmed for one or several schedules for example school- and working hours.
- Astronomic twilight function for controlling of illumination without separate sensor.
- After a power failure, the relay outputs are resuming their positions (ON/OFF) which were previously programmed (with a 10 second switching delay between the different outputs).
- Programming of seconds.
- Programming of groups.

WDP-Q = Master Clock, WDP-Y = Master Clock Programmer, WYP = Programmer

Type	Art. no.	Imp	Max. load	Relay	Power	Dim WxHxD (mm)	Weight (kgs)
WDP-Q	123310-00	MIN	1 A	-	24 V DC	190X160X103	0,9
	123312-00	MIN	1 A	-	230 V AC		1,3
WDP-Q2	123320-00	<input type="checkbox"/>	2 A	-	24 V DC	265X217X135	1,0
	123322-00	<input type="checkbox"/>	2 A	-	230 V AC		1,4
WDP-Y2	123340-00	MIN	1 A	2•	24 V DC	190X160X103	1,0
	123342-00	MIN	1 A	2•	230 V AC		1,4
WDP-Y4	123345-00	MIN	1 A	4•	24 V DC	265X217X135	1,1
	123347-00	MIN	1 A	4•	230 V AC		1,5
WDP-Y8	123350-00	MIN	1 A	8 (4•+4•)	24 V DC	265X217X135	1,2
	123352-00	MIN	1 A	8 (4•+4•)	230 V AC		1,7
WDP M+S	123360-00	<input type="checkbox"/>	2 A	8 (4•+4•)	24 V DC	265X217X135	1,3
	123362-00	<input type="checkbox"/>	2 A	8 (4•+4•)	230 V AC		2,5
WYP-4- MINI	124306-00	-		4 (2•+2•)	24 V DC	190X160X103	0,9
	124308-00	-		4 (2•+2•)	230 V AC		1,1
WYP-8	124320-00	-		8 (4•+4•)	24 V DC	265x217x135	1,1
	124322-00	-		8 (4•+4•)	230 V AC		1,4
EXPANSION*	124330-00	-		8 (4•+4•)**	24 V DC	265x217x135	1,0
	124332-00	-		8 (4•+4•)**	230 V AC		1,4
WDP-WT	122369-00				230 V AC	265X217X135	1,9
WDP-C	123368-00				230 V AC	265X217X135	1,7

•) Potential free relay contacts (changing) \*) Only for WDP-Y8 and WYP-8

•) Potential free relay contacts (closing) \*\*) Expansion up to 64 relay outputs

Min. - min.

Min. - sec.

Sek. - sec.

## ACCESSORIES/OPTIONS

- Running reserve 500mAh, approx. 7 hours (built-in) 122391-00
- Running reserve 2,0 Ah (separate case) 122998-00
- Radio synchronization RDS 122983-00
- Radio synchronization MSF 122985-20
- Radio synchronization DCF-77 122984-20
- Radio synchronization GPS 122980-00
- Adapter for DIN-angle mounting 123387-00
- QW 3 Control - remote and relay control 123996-00
- COMPUTER TIME - software for computer time 122997-00
- Ethernet adapter (built in) 123383-00

## TECHNICAL DATAS

Crystal frequency:.....4,915200 MHz

Accuracy:.....0,1 sec./24 hours (at +20 C°)

Microprocessor:.....HD6412394

Impulse output:.....

Impulse system:.....1/1 min, 1/2 min, 1/1 sec, time code (TC), time code pol (TC)

Type of time:.....LT, UTC, NT

Impulse duration:.....Minute 0,1-9,9 sec.

Second 0,1-1 sec.

Signal points:.....800

Running reserve - impulse:.....72 hours (impulse memory with rapid impulsing after a power failure)

Memory reserve:.....>100 years

Relay outputs:.....2,4 or 8 potential-free contacts

Max. load/relay output:.....230 V 6A

Total load/relay outputs:.....Number of relay outputs x 6A

Connection voltage:.....230 V 50 Hz -5% +10% or 24 V DC -5% +20%

Max ripple (24V DC):.....0,7V RMS

Connection effect:.....10-60 VA depending on model

Ambient temperature:.....0 °C up to +40 °C

Relative humidity:.....Max. 85%, non-condensing

Case:.....IP 65, light grey ABS-plastic with transparent protection cover

CE-Approval, EMC:.....Emission according to EN61000-6-3, immunity according to EN61000-6-2

Synchronization:.....1/1 min, 1/2 min, 1/1 sec, time code (TC), time code pol (TC)