

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)