QW-TIME 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.
- Easy to programme.
- Programming 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.
- Built-in “Time Keeper Memory” with lithium battery, which in case of power failure, stores entered datas for at least 10 years.
- Impulse duration selectable; minute impulse 1-4 seconds, seconds impulse0, 1-1 second.
- Impulse system selectable; minute, ½-minute, seconds or SR2/3.
- Type of time selectable; local time, UTC or normal time.

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 64 relay outputs as well as manual switch for control/regulation.
- 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 1-59 secs. can be programmed for day, week, year or to follow a schedule.
- Schedule programming of, for example, school and working hours (can handle 6 different schedules per year).
- “Twilight function” which means possibility of setting one output to follow the sunrise and sunsets.
- 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).

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

Type	Art No.	Imp.	Relay	Connection	Dimensions	Weight
WDP-Q	122310-00 122312-00	MIN 1A MIN 1A	- -	24 V DC 230 V AC	190x160x103	0.9 kg 1.3 kg
WDP-Q60	122320-00 122322-00	MIN+SEK 1A MIN+SEK 1A	- -	24 V DC 230 V AC	190x160x103	0.9 kg 1.9 kg
WDP-Y2	122340-00 122342-00	MIN 1A MIN 1A	2 • 2 •	24 V DC 230 V AC	190x160x103	1.0 kg 1.4 kg
WDP-Y4	122345-00 122347-00	MIN 1A MIN 1A	4(2•+2□) 4(2•+2□)	24 V DC 230 V AC	265x217x135	1.1 kg 1.5 kg
WDP-Y8	122350-00 122352-00	MIN 1A MIN A1	8(2•+6□) 8(2•+6□)	24 V DC 230 V AC	265x217x135	1.2 kg 1.7 kg
WDP M+S	122360-00 122362-00	MIN+SEK 2A MIN+SEK 2A	8(2•+6□) 8(2•+6□)	24 V DC 230 V AC	265x217x135	1.3 kg 2.5 kg
WYP4-MINI	121306-00 121308-00	- -	4(2•+2□) 4(2•+2□)	24 V DC 230 V AC	190x160x103	0.9 kg 1.1 kg
WYP-8	121320-00 121322-00	- -	8(2•+6□) 8(2•+6□)	24 V DC 230 V AC	265x217x135	1.1 kg 1.4 kg
EXPANSION*	121330-00 122332-00	- -	9-16 ** • 9-16 ** •	24 V DC 230 V AC	265x217x135	1.0 kg 1.4 kg
WDP-COMPUTER	121380-00	Time to computers, see separate data sheet		230 V AC	190x160x103	0.9 kg
WDP-WT	122369-00	Time to world time clocks, see separate data sheet		230 V AC	265x217x135	1.9 kg
WDP-C	122368-00	Time to Church Bells, see separate data sheet		230 V AC	265x217x135	1.7 kg

•) Potential free relay contacts (changing) *) = Only for WDP-Y8 and WYP-8
□) Potential free relay contacts (closing) **) = Expansion up to 64 relay outputs

ACCESSORIES/OPTIONS

• Running reserve 500 mAh, approx. 7 hours (built-in)	122391-00
• Running reserve 2,0 Ah (separate case)	122998-00
• Radio Synchronisation RDS	122983-00
• Radio Synchronisation DCF-77	122984-10
• Radio Synchronisation DCF-77L (long distance)	122984-12
• Radio Synchronisation GPS	122982-00
• RS 232-output 3-polar	122392-00
• RS 232-output 25-polar	122393-00
• RS 485-output (big case)	122396-00
• Synchronisation input	122394-00
• Slave input	122395-00
• Lockable front cover	042008-10
• Adaptor for DIN-angle mounting (small case)	042035-00
• Softwares for time to computers	Quotation on request

TECHNICAL DATAS

Crystal frequency	4,915200 MHz
Accuracy	0,1 sec./24 hours (at +20°C)
Microprocessor	HD6303Y
Max. load impulse output	Minute 1 A, seconds 0,5 A The output is equipped with short circuiting protection which resets automatically.
Impulse duration	Minute 2 seconds, selectable 1-4 seconds Second 0,5 seconds. Selectable 0, 1-1 second
Running reserve – impulse	72 hours (impulse memory with rapid impulsing after a power failure).
Memory reserve	10 years (lithium battery)
Relay outputs	2,4 or 8 potential-free contacts
Max. load/relay output	230 V 6 A
Total load relay outputs	Number of relay outputs x 6A.
Connection voltage	230 V 50 Hz± 10% alternatively 24 DC –5% + 20%
Connection effect	10-60 VA depending on model
Ambient temperature	0° C up to +40° C
Relative humidity	Max. 85%, non-condensing
Case	IP 54, light grey plastic (Polystyrol) with transparent protection cover
CE-Approval, EMC	Emmission according to EN50081-1, Immunity according to EN50082-2.