WEMPE
CHRONOMETERWERKE
HAMBURG

SHIPS TIME SYSTEMS
2018 - 2019

MARITIME PRECISION AT ITS
BEST ON THE SEVEN SEAS!

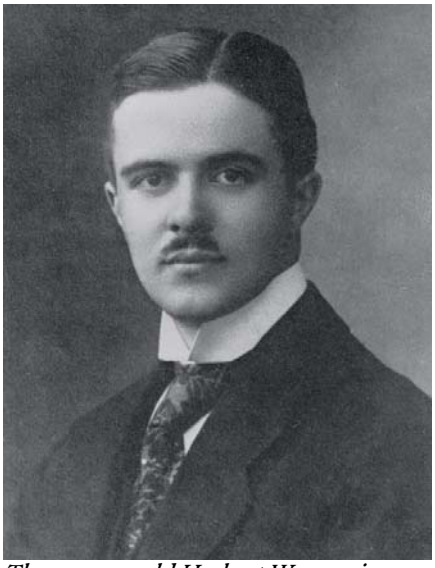
Founded 1905 in Hamburg, WEMPE CHRONOMETERWERKE has always devoted itself to the exacting task of manufacturing precise maritime instruments and nautical timekeeping systems. Simultaneously cultivating traditional values and keeping its gaze directed toward the future, WEMPE numbers among the world's leading manufacturers.

All German research vessels and many luxury cruise ships such as the MS EUROPA II are equipped with clock systems from WEMPE CHRONOMETERWERKE. WEMPE is also strongly devoted to the fascination of sailing. Whether aboard a sailing yacht or as a decorative element in an office or home, these marine chronometers, ship's clocks and measuring instruments rely on high-quality materials and elegant designs which are equally convincing to active sailors and to everyone with an affinity for the maritime way of life.

MORE THAN ONE HUNDRED YEARS OF WEMPE CHRONOMETERWERKE, HAMBURG.

NOT ONLY THE GATEWAY TO THE WORLD, BUT ALSO THE GATEWAY TO TRAILBLAZING HOROLOGICAL CRAFTSMANSHIP.

Chronometry in imperial Germany acquired international importance much later than it did in England or France. German chronometry was particularly crucial in Hamburg for two reasons: firstly, because Bremen and Hamburg were becoming increasingly important commercial centers; secondly, because Hanseatic ship-owners wanted to become independent of foreign (and especially English) chronometer suppliers. A number of leading German ship-owners joined together in 1905 to found the Chronometerwerke GmbH in Hamburg. This enterprise was renamed Wempe Chronometerwerke in 1938. The goal was to develop mechanized methods for manufacturing highly precise marine chronometers and ship's clocks. The cornerstone had been laid for an internationally competitive chronometer- manufacturing business.



The 21-year-old Herbert Wempe in 1911.

DEDICATED TO THE HIGH ART OF FINE MECHANICAL ENGINEERING.

Even in today's era of satellite navigation, fine handmade mechanical ship's chronometers have lost none of their appeal. Wempe provides proof of this fascination with its limited editions for aficionados and connoisseurs of maritime timepieces. In addition to the miracles of the watchmaker's art, the maritime series also includes battery-powered and mechanical ship's clocks, ship's bell clocks, barometers, barographs, thermometers, hygrometers and comfortmeters.

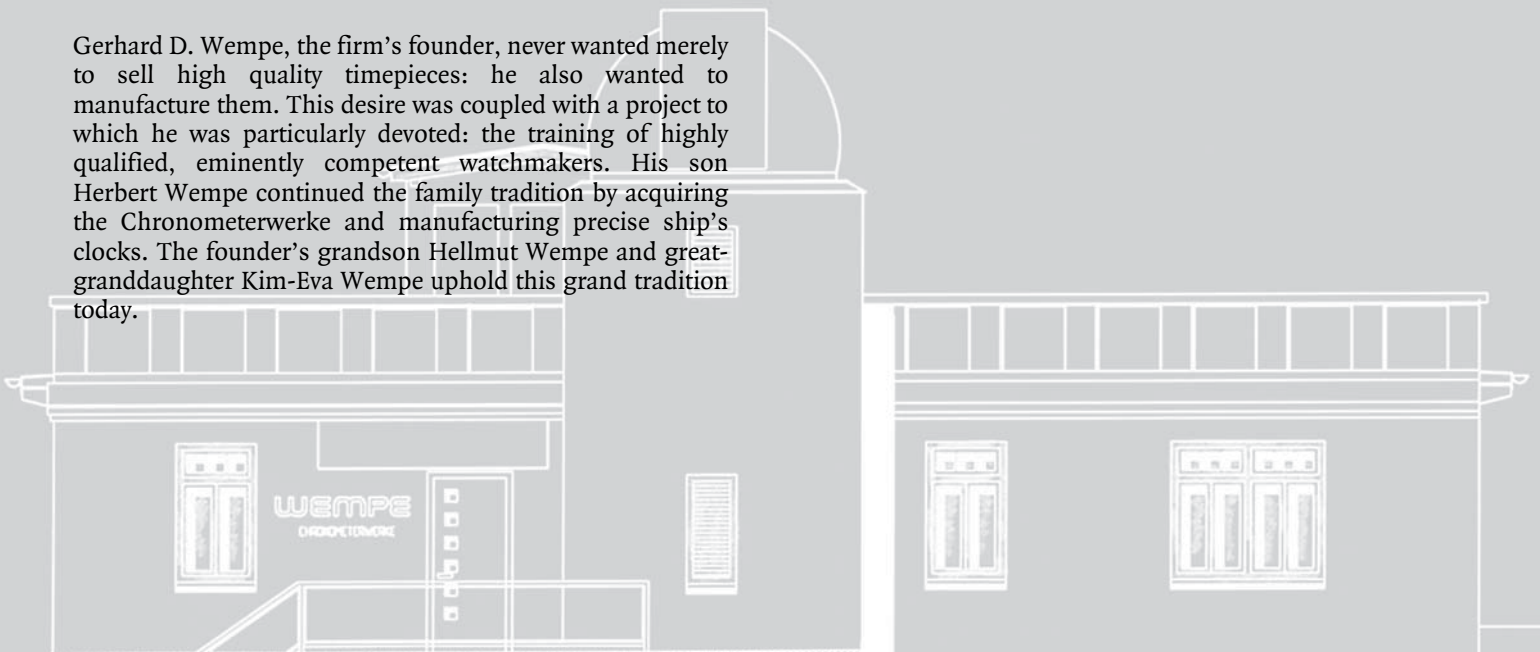
Observatory in Glashütte around 1920.

IN THE RIGHT PLACE AT THE RIGHT TIME: WEMPE IN GLASHÜTTE.

Tradition unites. And can also set new standards. Wempe has been proving this fact in the traditional German watchmaking city of Glashütte since September 2005. The ruins of the town's observatory have been comprehensively restored and provide now a home for a chronometer-testing facility that operates in accord with German industrial norms. The project is being pursued in collaboration with the Thuringian and Saxon State Office for Weights and Measures. Wempe is also laying the cornerstone of the first manufacturing venture that will produce Wempe's own wristwatches.

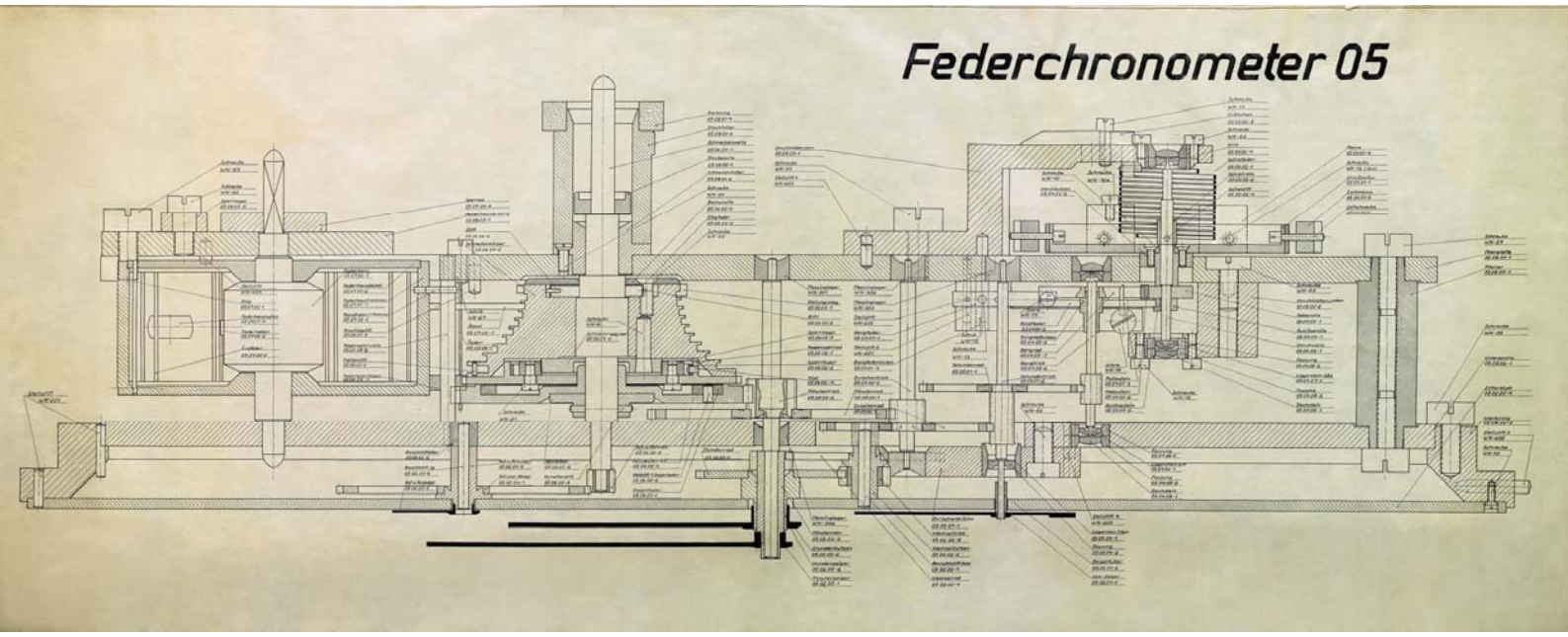
WEMPE READ THE SIGNS OF THE TIMES AT AN EARLY DATE.

Gerhard D. Wempe, the firm's founder, never wanted merely to sell high quality timepieces: he also wanted to manufacture them. This desire was coupled with a project to which he was particularly devoted: the training of highly qualified, eminently competent watchmakers. His son Herbert Wempe continued the family tradition by acquiring the Chronometerwerke and manufacturing precise ship's clocks. The founder's grandson Hellmut Wempe and great-granddaughter Kim-Eva Wempe uphold this grand tradition today.



WEMPE UNIFIED MECHANICAL CHRONOMETER WITH MANUFACTORY CALIBER 5

This precise mechanical instrument has been handcrafted by WEMPE for more than 60 years. This construction achieved fame because the movement is supported atop just three pillars. This first-rate product proudly bears the distinction of being “MADE BY WEMPE.” The item is available in the classical version (which features a high-gloss polished Mahogany housing with brass inlays), in a solid brass case, or in a modern version with black, piano-lacquered surfaces, matt nickel-plated brass inlays and a high-gloss chrome-plated brass case.



MARINE QUARTZ CHRONOMETER

MARINE QUARTZ CHRONOMETER
MODEL 10058 – ELEGANCE

Product information	
Dimension	185x185x130mm
Dial:	95mm Ø, white with black Arabic numerals
Movement:	Stepping motor with an angular step of 60°, stepping frequency 0.5 Hz. The second hand moves forward in successive jumps of 1/sec.
Electronics:	MOS-IC's and semi-conductors with gold cap on a printed wiring board 55x135mm, all electronic parts are housed in the base of the chronometer's case. The oscillating frequency is temperature stabilised.
Quartz:	Frequency 4.194.304 Hz
Helium leakage rate:	1.10^{-11} Pa m^3/s
Batteries:	2 alkaline batteries type mono size D / LR20
Life:	1 year if alkaline batteries are used
Accuracy:	medium daily rate 0.01 sec/24h at 22°C (± 1°C)
Security distance	The security distance to the magnetic compass is 0.90m.
Weight:	2.4kg

The chronometer passes before delivery a work shop test that fulfils the former DIN 8319 standard according to the requirements of the Federal Office for maritime shipping and hydrograph (BSH) in Hamburg formerly known as DHI.

Precise electronic time-measuring device with selected, artificially aged, temperature stabilized quartz. Manufactured and tested according to the testing rules of the former German Hydrographic Institute (DHI), the current Federal Office for Navigation and Hydrography (BSH). The outstanding feature is the accuracy of the rate, which far exceeds the technical requirements stipulated by Part 2 of DIN 8319. Other superlative attributes of this precise instrument are excellent legibility and the ability to change the battery without interrupting the running.


Queen Victoria

WEMPE MARINE CLOCKS AND INSTRUMENTS PROFESSIONAL

WEMPE MARINE CLOCKS PROFESSIONAL developed especially for the needs on board a ship. They stand out not only due to their state-of-the-art technology, but also due to their functional and compact design. In addition, they are very durable, sturdy, easy to install and to operate and they are nearly maintenance-free. Our standard range includes marine clocks with analogue and digital displays as well as special flush mounting slave clocks of 96 x 96 mm and 144 x 144 mm in various designs and wall clocks in sizes from Ø approx. 100 – 1000 mm for all areas on board a ship.

SKIPPER BRASS CLOCK

Product information	
Material	Massive brass/Mahogany polished/lacquered
Case	Wall mounting
Dimensions	Ø 210mm x 50mm (h)
Dial	Ø 140mm with Roman numerals
Weight	Ca 1,2kg
Versions	B

Also with chrome/wooden black case available

SKIPPER BRASS BAROMETER

Product information	
Material	Massive brass/Mahogany polished/lacquered
Case	Wall mounting
Dimensions	Ø 210mm x 50mm (h)
Dial	Ø 140mm with Arab. numerals
Weight	Ca 1,2kg
Versions	Mechanical single barrel movement

Also with chrome/wooden black case available

MARINE CLOCK PRO

Time-measuring device in a massive high-gloss-polished case. The front plate is made of polished brass. White dial. Battery-powered quartz movement. The case's bottom extends so that the instrument can be mount in any orientation. Also an attractive eye-catcher as a desktop clock.

Product information	
Material	Massive Brass/Mahogany polished/lacquered
Case	Desktop / Wall mounting
Dimensions	155 x 155 x 75mm (h)
Dial	Ø 80mm with Roman numerals
Weight	Ca 1,1kg
Versions	B

Delivered with a workshop-certificate.

BREMEN II BRASS RADIO ROOM CLOCK

Product information	
Material	Massive brass polished and lacquered
Case	Wall mounting
Dimensions	Ø 150mm x 70mm (h)
Dial	Ø 100mm Arab numerals and silent sectors
Weight	Ca 0,4kg
Versions	B

BREMEN II BRASS BAROMETER

Product information	
Material	Massive brass polished and lacquered
Case	Wall mounting
Dimensions	Ø 150mm x 70mm (h)
Dial	Ø 100mm with Arab numerals
Weight	Ca 0,4kg
Versions	Mechanical single barrel movement

BREMEN II BRASS COMFORTMETER

Product information	
Material	Massive brass polished and lacquered
Case	Wall mounting
Dimensions	Ø 150mm x 70mm (h)
Dial	Ø 100mm with Arab numerals
Weight	Ca 0,4kg
Versions	Combinated Thermo-/Hygrometer

BREMEN II BRASS STRIKING CLOCK MECHANICAL

Product information	
Material	Massive brass polished and lacquered
Case	Wall mounting
Dimensions	Ø 150mm x 70mm (h)
Dial	Ø 100mm with Roman numerals
Weight	Ca 0,9kg
Versions	Mechanical 8-day movement w. ship's bells

All clocks and instruments are also with high-gloss chrome plated case available.

ADMIRAL II CHROME STRIKING CLOCK

Product information	
Material	Massive brass high-gloss chrome plated
Case	Wall mounting
Dimensions	Ø 185mm x 70mm (h)
Dial	Ø 140mm Roman numerals
Weight	Ca 1,2kg
Versions	B – with ship's bells

ADMIRAL II CHROME BAROMETER

Product information	
Material	Massive brass high-gloss chrome plated
Case	Wall mounting
Dimensions	Ø 185mm x 70mm (h)
Dial	Ø 140mm Arab numerals
Weight	Ca 1,0kg
Versions	Mechanical double barrel movement

ADMIRAL II CHROME WEATHER STATION

Product information	
Material	Massive brass high-gloss chrome plated
Case	Wall mounting
Dimensions	Ø 185mm x 70mm (h)
Dial	Ø 140mm Arab numerals
Weight	Ca 1,0kg
Versions	Mechanical double barrel movement combined with thermo-/hygometer

ADMIRAL II CHROME STRIKING CLOCK MECHAN.

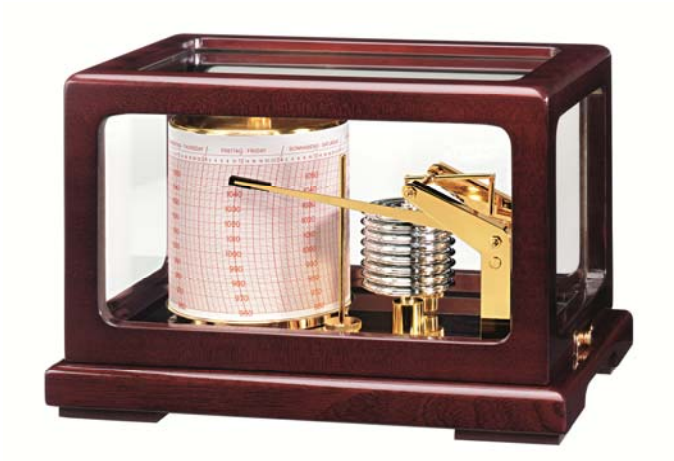
Product information	
Material	Massive brass high-gloss chrome plated
Case	Wall mounting
Dimensions	Ø 185mm x 70mm (h)
Dial	Ø 140mm with Roman numerals
Weight	Ca 1,4kg
Versions	Mechanical 8-day movement w. ship's bells

All clocks and instruments are also with high-gloss brass case available.

Drum barographs are essential for anyone who wants to keep an exact record of changes in air pressure. Our drum barographs are made of high-quality materials and are individually assembled by hand. Eight aneroid capsules are the centrepiece of each drum barograph. They measure the exact air pressure, which is recorded on the diagram paper by means of a precision mechanism and a writing arm. The paper drum itself is battery-powered.

All our drum barographs come with 52 sheets of diagram paper for a full year and a felt-tip pen. Please indicate in your order if you would like to have the diagram paper with calibrations in hPa or inches.

Alternative model with additional barometer display



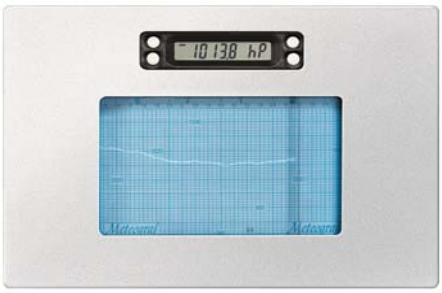
DRUM BAROGRAPH MAHOGANY/BRASS

Product information	
Material	Massive Mahogany /brass gold plated
Case	Desktop
Dimensions	265 x 170 x 175mm
Measuring range	950 – 1050 hPa
Accuracy	+/- 2 hPa (between 980 – 1030 hPa)
Weight	Ca 3,1kg

METEOGRAF WITH MAHOGANY CASE

Product information	
Material	Plastic/massive Mahogany with gold mirror
Case	Desktop or wall mounting
Dimensions	164 x 120 x 35mm
Measuring range	960 – 1055 hPa (paper record)
Linearity	<0,5 hPa
Weight	ca 0,5kg

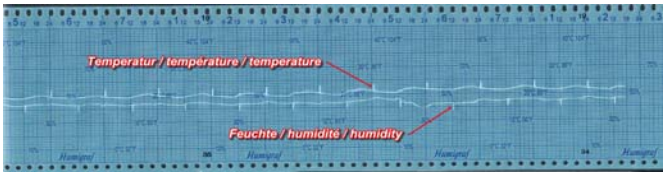
The METEOGRAF combines the advantages of mechanical and electronic barographs. This precise barograph runs for an entire year with a conventional battery and a roll of diagram paper. Thanks to its special construction, rough seas and vibrations have no influence on the recording.



Additional wall or flush mounting cases available

THERMO-HYGROGRAPH
- INDOOR USE -

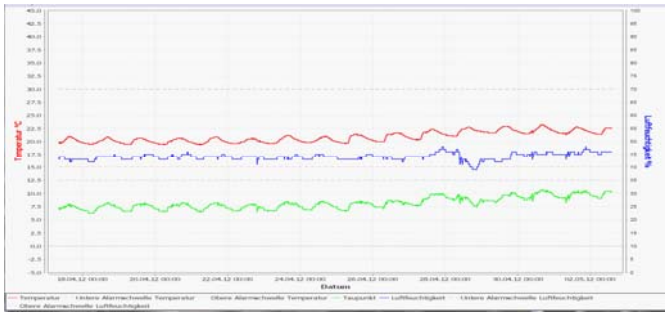
The HUMIGRAF measures the humidity and temperature of the ambient air and continuously records the humidity curve of an entire year on a wax paper roll. The HUMIGRAF runs with a standard battery so that it can be flexibly used at different locations, aboard a ship or at home. The current values can be read off at any time on a LCD display.



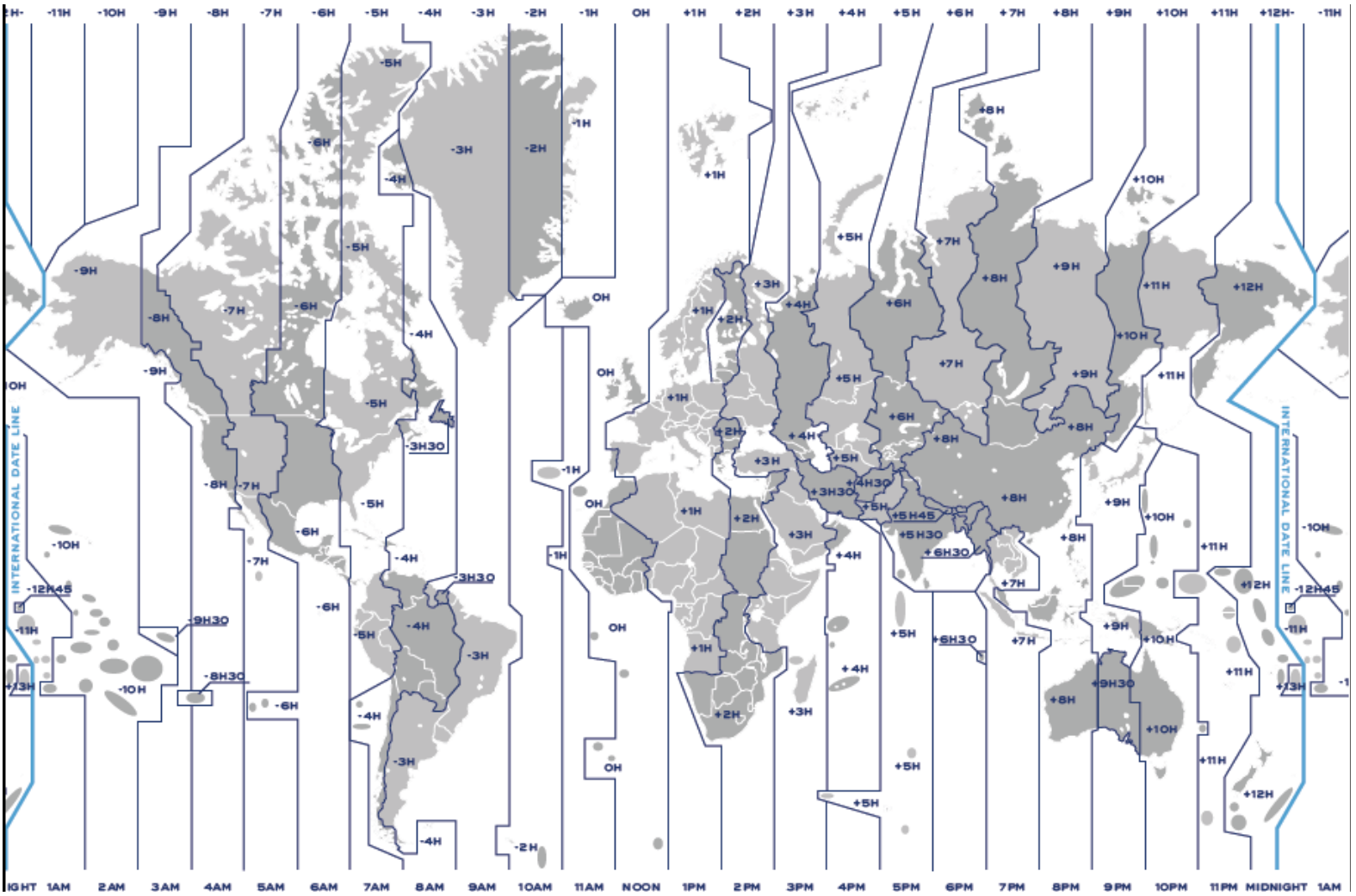
Recording of ambient air temperature and relative humidity

HUMIGRAF+

Product information	
Material	Plastic
Case	Desktop or wall mounting
Dimensions	269 x 165 x 78mm
Relative Humidity:	
Range	0% - 100% or 20% - 80%
Accuracy	± 2% (between 10% to 90%)
Resolution	1%
Temperature:	
Range	- 20° to 60°C
Recording	- 5° to 45°C ore 5°C - 35°C
Accuracy	± 0.4° C (0° to 40° C)
Resolution	0.1°C
Relative Humidity:	
Range	0% - 100% or 20% - 80%
Accuracy	± 2% (between 10% to 90%)
Resolution	1%



The recorded data downloaded and displayed on a PC



PRECISE AND RELIABLE ON ALL THE WORLD'S OCEANS

Providing a uniform time aboard a vessel, WEMPE MASTER CLOCKS have been a precise and reliable companion for sailors on all the world's oceans since the 1970s. The master clock or main clock as it also called is the most important component of a time system besides the slave or secondary clocks that installed throughout the vessel. The master clock controls the slave clocks by transmitting control pulses or signals so that all connected slave clocks always show the same time.

Contrary to time systems used in a building or at an airport, there are always two times that have be synchronized aboard a ship, i.e. the local time (LT) at the ship's current position at sea and the Coordinated Universal Time (UTC).

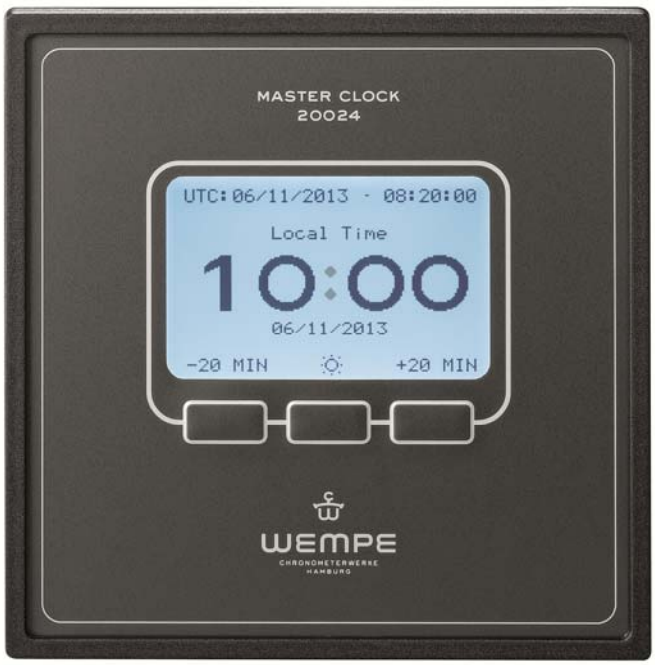
Nowadays, state-of-the-art master clocks do not only control connected slave clocks, but the time and date information provided by them also serves to synchronize other systems used aboard a ship via data interfaces or a network.

Furthermore WEMPE Master Clocks are specially designed to meet the needs on board a ship and they stand out due to their state of the art technology and their functional and compact design. This is allowing them easy to mount and to operate on a minimum Maintenance level and at a very low life-cycle cost level.

MASTER CLOCK 20024

Our newest, smallest and nevertheless
Powerful master clock.

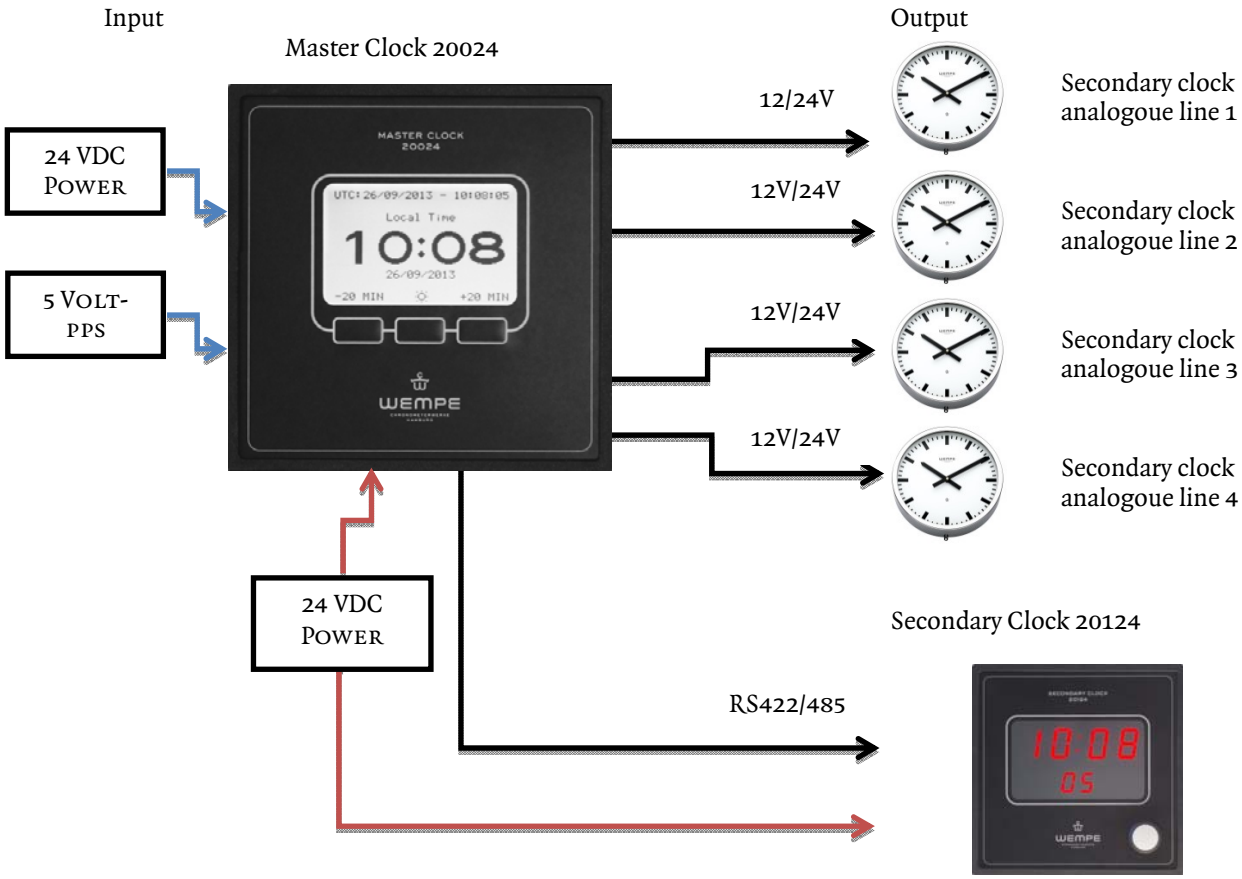
Compact in size with 144 x 144 mm would allow installing it almost anywhere or mounting it with optional wall housing even in the smallest corners, but without sacrificing important features of a modern master clock.



Technical data

Accuracy	± 0,05 s / 24 h
Operating temperature range	0°C to +50°C
Relative humidity	Max. 90% non-condensing
Case	144x144x62mm in aluminium Flush mounting
IP protection rating	IP55
Weight	0,8 kg
Power supply	20...28 VDC
Certificates	CE, DIN EN 60945
Interface input	GPS Protocols ($GPRMC or $GPZDA); PPS signal
Interface output	1 x serial line (RS422/485)
relay output	1 potential free contact
Analogue outputs	4 x analogue lines (12 or 24 Volt per impulse)
Time zones	LT, UTC
time adjustment intervals	± 1 min or in pre-set intervals 15/20/30/60 min
Current consumption	Max. 1,5A

Example of a typical system configuration



The Master clock 20097 has a very compact design allowing mounting and usage even in small places. Its functionality and ergonomic design has improved thanks to a modern matrix LC-display and a flat foil keyboard.

It comes in a modern plastic housing with a metal cage to protect the unit from electromagnetic disturbances. Different Versions of housings are available, for wall or control panel mounting. Its modular construction makes it possible to install different options step by step. Many necessary functions are implemented in the standard already.

- Max. 6 hours of protection against power failure
- Interfaces for all current secondary clock systems
- Serial RS485 interface with 1 standard protocol
- GPS-synchronization
- Relay-output for external error indicators

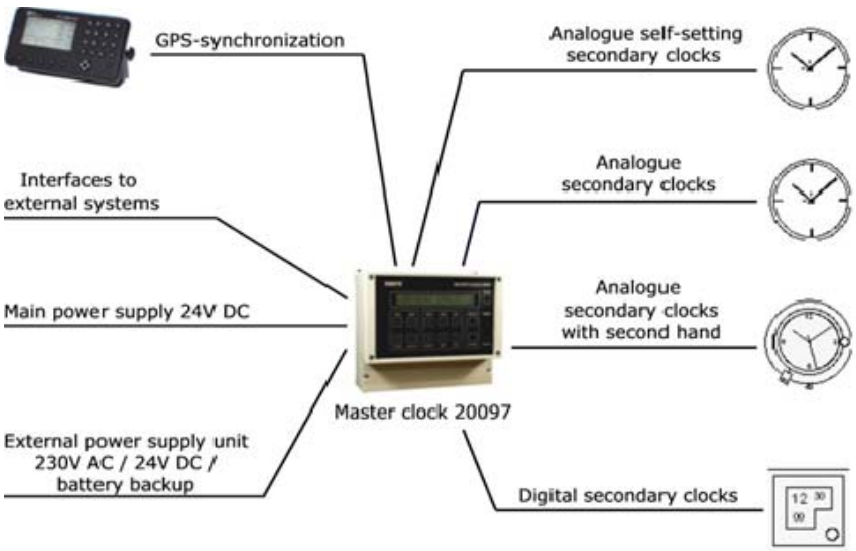
As options, up to 3 additional cards can be installed:

- For additional analogue secondary clocks
- For digital secondary clocks
- For self-adjusting analogue secondary clocks (MOBALine-system)
- For additional serial interfaces
- An additional power supply may be used for extra protection against power failure (up to 12 hours for internal and external functions).

Technical data

Accuracy	± 0,05 s / 24 h
Operating temperature range	0°C to +50°C
Relative humidity	Max. 90% non-condensing
Case	144x144x62mm in aluminium Flush mounting
IP protection rating	IP55
Weight	0,8 kg
Power supply	20...28 VDC
Certificates	CE, DIN EN 60945
Interface input	GPS Protocols ($GPRMC or $GPZDA); PPS signal
Interface output	1 x serial line (RS422/485)
relay output	1 potential free contact
Analogue outputs	4 x analogue lines (12 or 24 Volt per impulse)
Time zones	LT, UTC
time adjustment intervals	± 1 min or in pre-set intervals 15/20/30/60 min
Current consumption	Max. 1,5A

Example of a typical system configuration

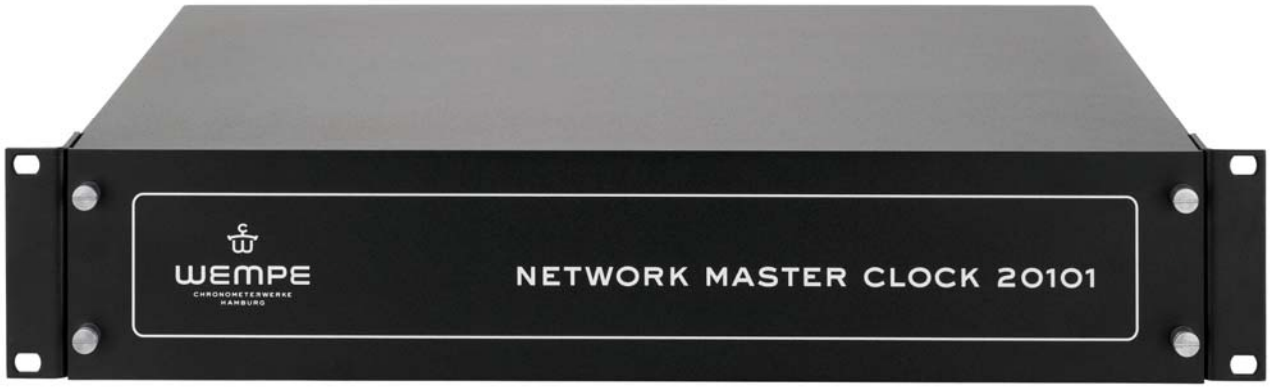


NETWORK MASTER CLOCK 20101

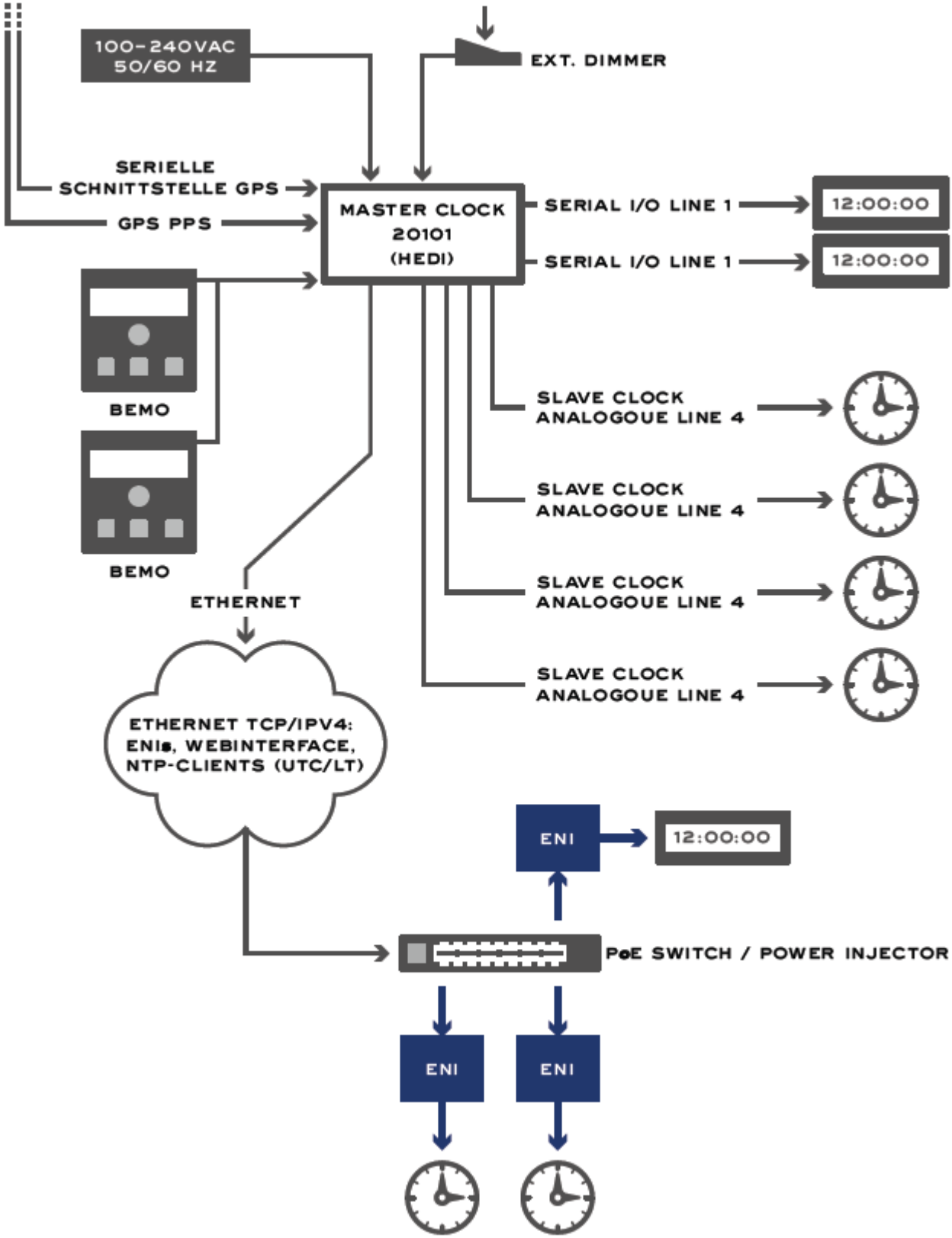
Our most powerful master clock

with up to 2 integrated NTP servers enabling a uniform transmission of UTC and LT in a network. Combined with Ethernet slave clocks this master clock is a modern, intelligent and easy-to-operate system, which leaves almost nothing to be desired.

Technical data	
Dimensions Operation Monitor	144 x 144 x 62 mm flush mounting (BEMO)
Dimensions Main clock	437,5 (481) x 88 x 420 mm (HEDI)
Display	digital displaying UTC/LT time and date (BEMO)
Accuracy	± 0,05 s / 24 h
Operating temperature range	0°C to +50°C
Relative humidity	Max. 90% non-condensing
Weight	0,8 kg (BEMO) / 10,0 kg (HEDI)
Power supply	100 –240 vac, 50/60 Hz
Certificates	CE, DIN EN 60945
Interface input	GPS Protocols ($GPRMC or $GPZDA); PPS signal
Interface output	2 x serial lines (rs232/422)
relay output	2 potential free contacts net tp-lt)
Analogue outputs	4 x analogue lines (12 or 24 Volt per impulse)
Network	1 x Ethernet ipv4 NTO-UTC (optional 1x Ethernet NTP-LT)
Time zones	LT, UTC
time adjustment intervals	± 1 min or in pre-set intervals 15/20/30/60 min
Current consumption	Max. 1,5A



Example of a typical system configuration




Holland America Line
EURODAM

WEMPE Chronometerwerke offers a wide range of flush mounting clocks in standardised sizes of 96x96 mm and 144x144 mm according to DIN 43700.

Flush mounting clocks with second hand or/and illumination can be manufactured upon customer's request as well as all types of different movements. Besides the standard black and white dial design we offer in addition custom-made dials to meet the special requirements of your project.

21123

Product information	
Material	Plastic black
Case	Flush mounting
Dimensions	96 x 96 x 100mm (h) DIN 43700
Dial	Ø 86mm with markings
Weight	Ca 0,8kg
Versions	T / Qzv

As Model 21155 also with black dial deliverable

21155

21141

Product information	
Material	Plastic black
Case	Flush mounting
Dimensions	96 x 96 x 100mm (h) DIN 43700
Dial	Ø 86mm with markings
Illumination	Dimmer able illumination 24 VDC
Weight	Ca 1,0kg
Versions	T / Qzv

As Model 21169 also with white dial deliverable

21169

20605

Product information	
Material	Steel zinc plated
Case	Flush mounting
Dimensions	138 x 138 x 100mm (h) DIN 43700
Dial	Ø 106mm with markings
Weight	Ca 1,0kg
Versions	T / M / S / IP / Q / QZV/ B

As Model 20604 also with white dial deliverable

20604

As Model 20606 also with bl./yellow dial deliverable

20606

20622

Product information	
Material	Steel zinc plated
Case	Flush mounting
Dimensions	138 x 138 x 100mm (h) DIN 43700
Dial	Ø 106mm with markings
Hands	3 (hour/minute/second)
Weight	Ca 1,5kg
Versions	T / M / S / IP / Q / QZV/ B

As Model 20623 also with back dial deliverable

20623

As Model 20624 also with bl./yellow dial deliverable

20624

20641

Product information	
Material	Steel zinc plated
Case	Flush mounting
Dimensions	138 x 138 x 100mm (h) DIN 43700
Dial	Ø 106mm with markings
Illumination	Dimmer able illumination 24 VDC
Weight	Ca 1,0kg
Versions	T / M / S / IP / Q / QZV/ B

As Model 20640 also with white dial deliverable

20640

As Model 20642 also with bl./yellow dial deliverable

20642

20668

Product information	
Material	Plastic black
Case	Flush mounting
Dimensions	96 x 96 x 100mm (h) DIN 43700
Dial	Ø 86mm with markings
Hands	3 (hour/minute/second)
Illumination	Dimmer able illumination 24 VDC
Weight	Ca 1,5kg
Versions	T / M / S / IP / Q / QZV/ B

As Model 20667 also with back dial deliverable

20667

As Model 20669 also with bl./yellow dial deliverable

20669

20759

Product information	
Material	Massive brass polished and lacquered
Case	Flush mounting
Dimensions	Ø 197mm x 20mm (h)
Dial	Ø 140mm with markings
Weight	Ca0,5kg
Versions	T / M / S / IP / Q / B

20777

Product information	
Material	Massive brass chrome plated
Case	Flush mounting
Dimensions	Ø 197mm x 20mm (h)
Dial	Ø 140mm with markings
Weight	Ca0,5kg
Versions	T / M / S / IP / Q / B

20780

Product information	
Material	Brass chrome plated / stainless st. grinded
Case	Flush mounting
Dimensions	Ø 290mm x 23mm (h)
Dial	Ø 140mm with markings
Weight	Ca 1,8kg
Versions	T / M / S / IP / Q

20254

Product information	
Material	Massive brass Index/Alu. RAL 9001
Case	Flush mounting
Dimensions	Ø 280mm x 30mm (h)
Dial	Ø with markings
Weight	Ca 1,2kg
Versions	T / M / S / IP / Q

As Model 20272 also with cover lid deliverable

20872

Product information	
Material	Massive brass/Plexiglas
Case	Flush mounting
Dimensions	Ø 197mm x 40mm (h)
Dial	Ø 250mm with markings
Weight	Ca 1,2kg
Versions	T / M / S / IP / Q

20036

Product information	
Material	Massive brass/Mahogany
Case	Wall mounting
Dimensions	Ø 260mm x 40mm (h)
Dial	Ø 210mm with Roman numerals
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

20308

Product information	
Material	Massive brass/Mahogany
Case	Wall mounting
Dimensions	Ø 190mm x 60mm (h)
Dial	Ø 140mm with markings
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

20309

Product information	
Material	Massive brass chrome plated/Mahogany
Case	Wall mounting
Dimensions	Ø 190mm x 60mm (h)
Dial	Ø 140mm with markings
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

20404

Product information	
Material	Stainless steel high-gloss polished IP54
Case	Wall mounting
Dimensions	Ø 197mm x 70mm (h)
Dial	Ø 140mm with Arab. numerals
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

As Model 20422 also with second (3-hands) deliverable

20803

Product information	
Material	Stainless steel high-gloss polished
Case	Wall mounting
Dimensions	Ø 200mm x 40mm (h)
Dial	Ø mm with Arab. numerals
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

20806

Product information	
Material	Massive brass high-gloss chrome plated
Case	Wall mounting
Dimensions	Ø 215mm x 45mm (h)
Dial	Ø 185mm with markings
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

20807

Product information	
Material	Massive brass high-gloss chrome plated
Case	Wall mounting
Dimensions	Ø 215mm x 45mm (h)
Dial	Ø 185mm with Arab numerals
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

20804

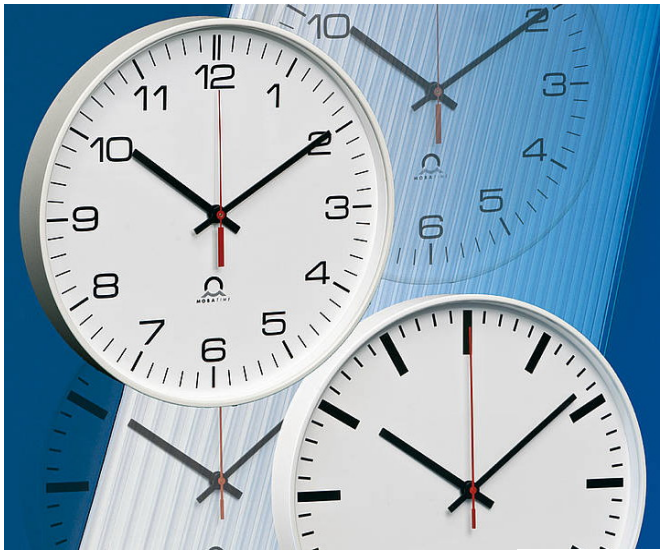
Product information	
Material	Massive brass high-gloss chrome plated
Case	Wall mounting
Dimensions	Ø 235mm x545mm (h)
Dial	Ø 210mm with markings
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

20808

Product information	
Material	Massive brass polished and lacquered
Case	Wall mounting
Dimensions	Ø 235mm x545mm (h)
Dial	Ø 210mm with Roman numerals
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

20963

Product information	
Material	Massive brass polished and lacquered
Case	Wall mounting
Dimensions	Ø 225mm x 70mm (h)
Dial	Ø 140mm with Arab. numerals
Weight	Ca 1,0kg
Versions	T / M / S / IP / B



20210

Product information	
Material	Steel case powder coated RAL 9002
Case	Wall mounting with mounting support
Dimensions	Ø 315mm x68mm (h)
Dial	Ø 300mm with Arab numerals
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

As Model 20200 also with markings deliverable

20211

Product information	
Material	Steel case powder coated RAL 9002
Case	Double face wall mounting w. bracket
Dimensions	Ø
Dial	Ø with Arab. Numerals
Weight	Ca 1,2kg
Versions	T / M / S / IP / B

As Model 20201 also with markings deliverable

20302

Product information	
Material	Ayous wooden case – Sauna clock
Case	Wall mounting, IP44
Dimensions	Ø 220mm x 65mm (h)
Dial	Ø 220mm with Arab. Numerals
Weight	Ca 0,8kg
Versions	T / M / S

Heat-resistant Sauna clock For use in sauna cabins (up to about 120 ° C) explicit suitable.

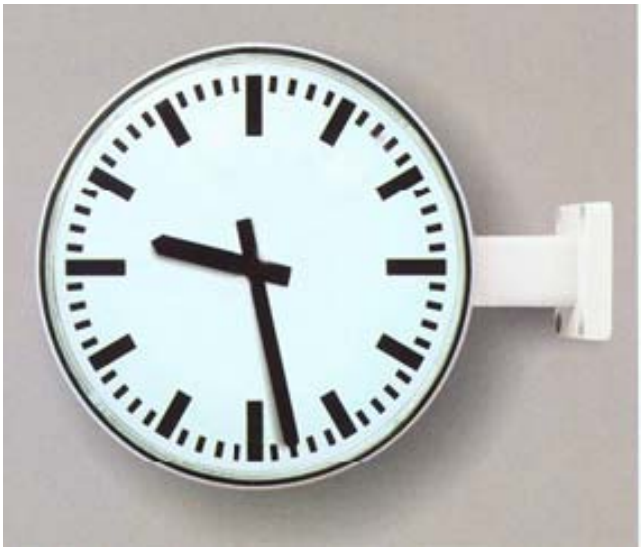
20886

Product information	
Material	cast aluminium, grey lacquered
Case	Wall mounting, IP 66
Dimensions	Ø 320mm x 75mm (h)
Dial	Ø 235mm with markings
Weight	Ca 1,0kg
Versions	T / M / S / IP / Q / B

1114-40

Product information	
Material	Alum. profile , Powder coated RAL 9006
Case	Wall mounting, IP 54
Dimensions	Ø 420mm x 80mm (h)
Dial	Ø 400mm with markings DIN 41091
Weight	Ca 6,5kg
Versions	T / M / S / IP / B

Backlight illumination 230V 50Hz

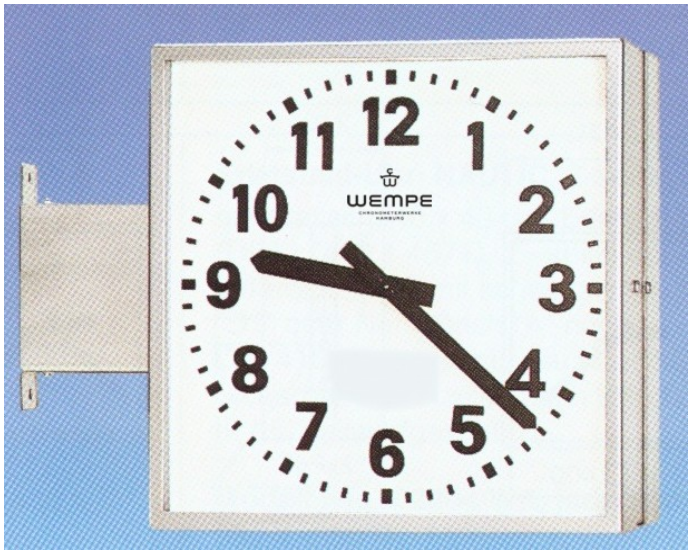


1215-50

Product information	
Material	Alum. profile , Powder coated RAL 9006
Case	Double-face, Wall mount. bracket, IP 54
Dimensions	Ø 581mm x 248mm (h)
Dial	Ø 500mm with markings DIN 41091
Weight	Ca 27,0kg
Versions	T / M / S / IP / B

Backlight illumination 230V 50Hz

MARINE CLOCKS WALL MOUNTING WEATHERPROOF
- FOR INDOOR AND OUTDOOR USE -



2114-40

Product information	
Material	Stainless steel A4
Case	Wall mounting, IP 55
Dimensions	468 x 468mm x 168,5mm
Dial	Ø 400mm with markings DIN 41091
Weight	Ca 13,5kg
Versions	T / M / S / IP / Q / B

Backlight illumination 230V 50Hz, safety cover glass

2214-40

Product information	
Material	Stainless steel A4
Case	Double face, Wall mount., Bracket IP 55
Dimensions	468 x 468mm x 240mm
Dial	Ø 400mm with markings DIN 41091
Weight	Ca 19,5kg
Versions	T / M / S / IP / Q / B

Backlight illumination 230V 50Hz, safety cover glass

20778

Product information	
Material	Massive brass chrome plated
Case	Flush mounting
Dimensions	Ø 197mm x 20mm (h)
Dial	Ø 140mm Arab. with silent sectors
Hands	3 (hour/minute/second)
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

20780

Product information	
Material	Steel zinc plated
Case	Flush mounting
Dimensions	144 x 144 x 112mm (h) DIN 43700
Dial	Ø 106mm Arab. with silent sectors
Hands	3 (hour/minute/second)
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

As Model 20XXX also with illumination deliverable

20440

Product information	
Material	Stainless steel high-gloss polished IP54
Case	Wall mounting
Dimensions	Ø 197mm x 70mm (h)
Dial	Ø 140mm Arab. with silent sectors
Hands	3 (hour/minute/second)
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

20981

Product information	
Material	Massive brass polished and lacquered
Case	Wall mounting
Dimensions	Ø 225mm x 70mm (h)
Dial	Ø 140mm Arab. with silent sectors
Hands	3 (hour/minute/second)
Weight	Ca 1,0kg
Versions	T / M / S / IP / B

As Model 20995 also with chrome case deliverable

20124

Product information	
Material	Aluminium
Case	Flush mounting
Dimensions	138 x 138 x 104mm (h) DIN 43700
Display	7-segement-LCD red dimmer able
Digits	6 (hour 19mm, min./sec. 13mm)
Driven by	RS422 Itron2000 by Wempe Master clock
Power supply	24 VDC
Weight	Ca 0,8kg
Versions	D

20686

Product information	
Material	Steel zinc plated
Case	Flush mounting
Dimensions	138 x 138 x 112mm (h) DIN 43700
Display	7-segement-LCD red dimmer able
Digits	6 (hour 19mm, min./sec. 13mm)
Driven by	BCD code over Wempe Master clock
Power supply	24 VDC
Weight	Ca 1,0kg
Versions	D

20690

Product information	
Material	Stainless steel RAL 7032 IP56
Case	Wall mounting
Dimensions	300 x 200 x 100mm
Display	7-segement-LCD red dimmer able
Digits	4 (hour/min. 60mm)
Driven by	BCD code over Wempe Master clock
Power supply	230 VAC (optional 115 VAC)
Weight	Ca 5,0kg
Versions	D

20691

Product information	
Material	Aluminium/Steel zinc plated RAL7032
Case	Wall mounting
Dimensions	200 x 160 x 108mm
Display	7-segement-LCD red dimmer able
Digits	6 (hour 19mm, min./sec. 13mm)
Driven by	BCD code over Wempe Master clock
Power supply	24 VDC
Weight	Ca 2,8kg
Versions	D

DC - MULTIFUNCTIONAL ELEGANT DIGITAL CLOCK
4 DIFFERENT SIZES - INDOOR USE -

Product information	
Material	Aluminium case anodi. sliver or black
Case	Wall mounting
Dimensions	x 118 x 39mm (DC.57.4) 423 x 118 x 39mm (DC.57.6) 510 x 169 x 39mm (DC.100.4) 652 x 169 x 39mm (DC.100.6)
Display	7-segement-LCD red dimmer able (optional green, yellow or blue)
Digits	6 (hour 19mm, min./sec. 13mm)
Driven by	MOBALine, NTP client, autonomous
Power supply	24 VDC
Weight	Ca 1,4 - 3,1kg
Versions	M/IP/B

490 - MULTIFUNCTIONAL DIGITAL CLOCK
3 DIFFERENT SIZES INDOOR USE

Product information	
Material	Aluminium case anodi. sliver or black
Case	Wall mounting
Dimensions	112 x 112 x 58mm (490A.01) 144 x 144 x 58mm (490A.02) 300 x 300 x 58mm (490.A05)
Display	7-segement-LCD red dimmer able (optional green, yellow or blue)
Digits	6 (hour/min./Sec. – 14-50mm)
Driven by	MOBALine, NTP client, autonomous
Power supply	24 VDC or 230 VAC (optional 115 VAC)
Weight	Ca 0,5 – 2,5 kg
Versions	M/IP/B

401/420 - MULTIFUNCTIONAL DIGITAL CLOCK
3 DIFFERENT SIZES INDOOR USE – IP65

Product information	
Material	Aluminium case anodi. sliver or black
Case	Wall mounting – IP65
Dimensions	(401A.12) 710x240x90mm (401A.170) 1.070x320x90mm (401A.220) 1.160x370x90mm (420A.220) 900x370x90mm (420A.12) 520x240x90mm (420A.170) 785x320x90mm
Display	7-segement-LCD red dimmer able (optional green, yellow or blue)
Digits	4/6 (hour/min./Sec. – 120-220mm)
Driven by	MOBALine, NTP client, autonomous
Power supply	230 VAC (optional 115 VAC)
Weight	Ca 7,5 – 16,5 kg
Versions	M/IP/B

PRECISE, DURABLE AND STATE-OF-THE-ART CLOCK MOVEMENT TECHNOLOGIES MADE IN GERMANY OR SWITZERLAND!

1.5V BATTERY-POWERED QUARTZ CLOCKS TYPE B

Product information

The accuracy of quartz movements is provided by a quartz oscillator (frequency 32.768 KHz). A possible deviation of rate would be less than 1 second per day. Analogue quartz clocks have to be set and adjusted manually to the current time. Analogue quartz clocks run on standard batteries.

Advantages:
Sturdy and durable movement
Masters-independent power supply
Interference-resistant
Most economically priced movement type

QUARTZ CLOCKS FOR 24 VDC TYPE Q / QZV

Product information

These clocks do not run on standard batteries as usual for quartz movements, but are connected to the ship's 24V DC Masters power supply. This does not at all affect their accuracy.

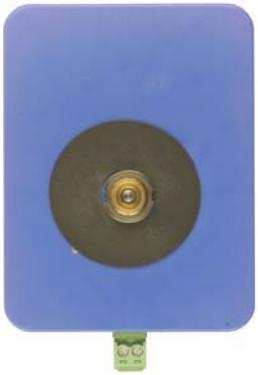
Advantages:
Sturdy and durable movement
No battery change necessary
Economically priced movement type

ANALOGUE SECONDARY CLOCKS MOVEMENTS FOR POLARIZED MINUTE AND/OR SECOND IMPULSES TYPE T

Product information

Secondary clocks are always controlled by a Master clock. The switchable 12 – 24V DC alternate polarity minute impulse is transmitted via a 2 or 4-core wire (secondary clock line). All secondary clocks are connected in parallel to the secondary clock line or via junction boxes. The minute impulse is at the same time the operating voltage of the analogue clocks. The total power consumption of all secondary clocks, which may not exceed the total output power of the Master clock, results from the number of connected secondary clocks, the cable length and the wire diameter. The advantage of secondary clocks is that all these clocks display an identical, uniform time since they are all controlled by the same Master clock. If the Master clock is equipped with a GPS module the system is always synchronised to the most precise time. Secondary clocks with a minute impulse movement do not have a second hand. If the Master clock is fitted with batteries for power supply backup, all connected analogue clocks will stop running in case of blackout, but they adjust automatically to the correct time once the Masters supply is back again.
To control secondary clocks with a minute and second impulse movement it is necessary to have a Master clock featuring at least two secondary clock outputs/secondary clock lines, i.e. one for the minute impulse and one for the second impulse. Minute and second impulse secondary clocks are driven via a 4-core wire.

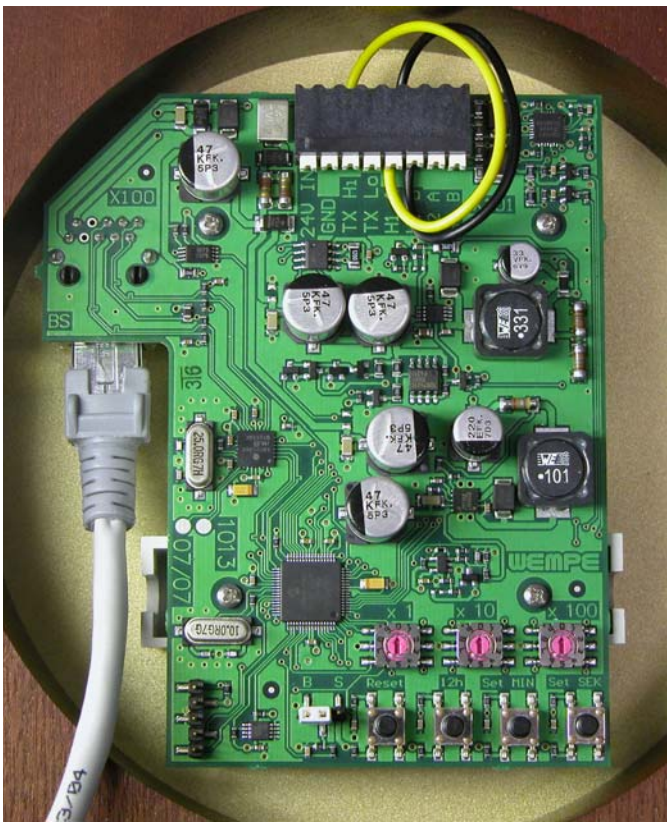
Advantages:
Stable, reliable and time-tested clock technology
Sturdy and very durable
Uniform time display
Cost-effective clock technology



INTELLIGENT SELF-SETTING MOBALINE SECONDARY CLOCKS MOVEMENTS TYPE M

Product information

MOBA*Line* the new intelligent self-setting secondary clock movement technology is radio synchronised by MOBA*Line*. This guarantees always the absolute correct time. A simple, 2 -wire transmission system, designed for interference protected data transmission with simultaneous power supply of connected secondary clocks. MOBA*Line* is safe! No more transmission errors, thanks to interference protected modulation mode, self-correcting code and clever decoding. MOBA*Line* is easy to install and to service! Maintenance-free thanks to self-setting! No re-setting problems for clocks with difficult access. Battery change not necessary. Power supply of secondary clocks through the MOBA*Line*. Use of already installed 2-wire lines, low voltage.



ANALOGUE SECONDARY CLOCKS ADVANCE AND REVERSE RUNNING FOR POLARIZED 1/2 MINUTE AND SECOND IMPULSE 24V DC TYPE S

Product information

To control secondary clocks with a minute and second impulse movement it is necessary to have a Master clock featuring at least two secondary clock outputs/secondary clock lines, i.e. one for the minute impulse and one for the second impulse. Minute and second impulse secondary clocks are driven via a 4-core wire.

Advantages:
As for the a.m. secondary clocks with minute impulse, but advance and reverse running.

ETHERNET SECONDARY CLOCKS TYPE IP

Product information

The Ethernet data switch/hub directly supplies the Ethernet secondary clocks with the necessary operating voltage via PoE (Power over Ethernet). Every secondary clock is equipped with a small µC. The Ethernet segment provides UTC and Local Time as time information. Each secondary clock module saves the actual position of the hands and determines automatically the difference between that time and the current system time. In case of a power-down, the current position of the hands is stored (non-volatile storage) so that the clocks show automatically the current time once the system has been rebooted. A special broadcast address facilitates the data exchange with the Master clock so that any requested number of clocks can be fed by the Master clock.

Master advantages of the Ethernet secondary clocks:

- Easy to put into operation: secondary clocks automatically log on the system via DHCP.
- “Intelligent” control providing automatic import of time data and automatic setting of secondary clocks.
- Saving of cables because of use of existing network.
- The clock system can easily be expanded on every network switch.
- Automatic re-synchronisation after failure of a system part or of the entire system.
- Fast troubleshooting via a network computer.


EUROPA
NASSAU

WEMPE – TIMEKEEPER OF THE CRUISE INDUSTRY

Our time systems guarantee a unified time distribution of the UTC and Local time around the vessel clocks, automation systems, LAN, etc. and designed for an easy installation and putting into operation as well as for a long-lasting trouble-free function by very low life cycle costs.

WEMPE time systems used worldwide on all kind of vessels and especially on Cruise, Research and Naval vessels and Yachts and we are proud that our time systems was choose for following projects:

Ship's name	Cruise Line	Year
Carnival Horizon	Carnival	2018
MSC Seaview	MSC Cruises	2018
Seabourn Ovation	Seabourn Cruises	2018
Viking Spirit	Viking Ocean Cruises	2018
Majestic Princess	Princess Cruises	2017
Silver Muse	Silversea Cruises	2017
MSC Seaside	MSC Cruises	2017
Viking Sky	Viking Ocean Cruises	2017
Viking Sun	Viking Ocean Cruises	2017
Seabourn Encore	Seabourn Cruises	2016
Carnival Vista	Carnival	2016
Seven Seas Explorer	Regent Seven Seas	2016
Viking Sea	Viking Ocean Cruises	2016
Koningsdam	Holland America Line	2016
Ovation of the Seas	Royal Caribbean Cruise Line	2016
Le Lyrial	Compagnie du Ponant	2015
Viking Star	Viking Ocean Cruises	2015
Anthem of the Seas	Royal Caribbean Cruise Line	2015
Britannia	P&O Cruises	2015
Quantum of the Seas	Royal Caribbean Cruise Line	2014
Regal Princess	Princess Cruises	2014
Le Solèal	Compagnie du Ponant	2013
EUROPA II	Hapag Lloyd	2013
Royal Princess	Princess Cruises	2013
Costa Fascinosa	Costa Crociere	2012
L'Austral	Compagnie du Ponant	2011
Costa Favolosa	Costa Crociere	2011
Le Boreal	Compagnie du Ponant	2010
Costa Deliziosa	Costa Crociere	2010
Queen Elisabeth	Cunard Line	2010
Nieuw Amsterdam	Holland America Line	2010
Costa Luminosa	Costa Crociere	2009
Silver Spirit	Silversea Cruises	2009
Eurodam	Holland America Line	2008
Queen Victoria	Cunard Line	2007
Noordam	Holland America Line	2006
Pride of America	Norwegian Cruise Line	2005
ARCADIA	P&O Cruises	2005

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