*Multi Parameters Sensor for Water Quality*
*M10 Series*

# Water Quality Transducer

Ref: M10_DS_E

## Water Analyzer for New Century

- ***Industrial pure and waste water monitoring***
- ***Municipal water treatment plant***
- ***Aquaculture and fishery fields***
- ***Environ monitoring, especially for river, lake, sea and ocean analysis***
- ***Smart, convenient, accurate, modern electronics for communication and network***
- ***Detect depth to 60m, best for sea and ocean research***

Big Dipper WM10 Water Quality Analyzer is designed for comprehensive water quality analysis, assembled with multiple sensors by user configuration.

It performs reliably and accurately in a variety of water environments and applications including the pure and waste water, municipal, drinking, aquaculture, agricultural, surface water, and sea water. It distinguishes itself as one of the pioneering products in this field for its features such as speediness, convenience, accuracy and multi parameter.

Total organices (TOC) or Oil content (OCA), and 6 electrochemical pole items, including $Ca^{2+}/Mg^{2+}$, $NH_3/NH_4^+$, $Br^-$, $Cd^{+2}$, $Ca^{+2}$, $CO_2/CO_3^{-2}$, $Cl^-/Cl_2$, $ClO_4^-$, $Cu^{+2}$, $CN^-$, $F^-$, $BF4^-$, $I^-$, $Li^+$, $Pb^{+2}$, $NO3^-$, $(NOx)i/NO_2^-$, $K^+$, $Ag^+/S^{-2}$, $Na^+$, $SCN^-$, ORP, $X^+/X^-$ etc., also available on request.

## *High Intelligence, Latest Digital Technology, Communication Standard*

- A real-time clock makes a printable record of the time sampling.
- Manual and auto sampling are available. If in auto setting, an average record of the current hour according to the sampling of every sharp minute is provided. Likewise, average group records of the current day, month, and year are provided too. Every three year, a yearly average records can be printed out. 1500 groups of data can be recorded manually.
- While water and atmosphere can be auto-identified, the water depth and height altitude can be numerated automatically too. More features are auto-mixing and auto-shifting.
- Multi parameters reaches or surpasses the identical products such as YSI 6800, HYDRALAB, GLI 900s, HORIBA U-10.
- Compatible with IEEE1451.2, RS232 (RS485) Communication Assembly Interface is available, connectible directly to User Computer Analyzing System.
- With AquaWin, an data gathering software, a massive data can be saved and stored. The trend line of the day, month, and the year and a statistical analysis are also available.

## Multi Parameter Testing

- Five parameters, including initial conductance (COND, Overall SAL/TDS, TURB, DO, and temperature
- OCA/TOC can be equipped as requested
- Seven other chemical electrode detectors can be equipped simultaneously

## Wide Applications of Sampling and Usage

- With a large range, WM10 Water Quality Analyzer simultaneously samples multi parameters of the water with the depth between 5cm and 60m
- Equipped with HBD4w hand testing instrument, it can work in the lab, on the spot, in the tunnel, pool, lake, river, and deep sea.
- With BD4/5 Intelligent transmitter online testing is available, compatible to latest IEEE1451 Standard
- Multi samplers are equipped, and the adapter are installed

## Easy To Use

WM10 Water Quality Analyzer is virtually maintenance-free, easy to install. In the lab, on the spot or with a pipeline, multi parameters are readable upon the connection to electricity. Besides automatic calibration, manual calibration with three dimensions are especially added to elevate the accuracy by adjusting to the geological disturbance and particular sampling conditions.

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# Transducer Assemblies

## CPA26

| Models | Parameters | Application |
|---|---|---|
| WM 3s 01 | Temperature,DO,SCT/TDS | |
| WM 3s 01D | Temperature,DO,SCT/TDS,Depth | |
| WM 3s 02 | Temperature,pH,$NH_3$/$NH_4^+$ | |
| WM 4s 01 | Temperature,pH,DO,ORP | |
| WM 5s 01-p | Temperature,pH,DO,Turbidity,SCT/TDS | Pure water |
| WM 5s 01D-p | Temperature,Pressure/Depth,pH,DO,Turbidity,SCT/TDS | Pure water |
| WM 5s 01-i | Temperature,pH,DO,MLSS,SCT/TDS | Waste water |
| WM 5s 01D-i | Temperature,Pressure/Depth,pH,DO,Turbidity/MLSS,SCT/TDS | Waste water |
| WM 5s 02 | Temperature,pH,DO,SCT/Salinity,ORP | Aquaculture |
| WM 5s 02D | Temperature,Pressure/Depth,pH,DO,SCT/Salinity,ORP | Aquaculture |
| WM 6s 01 | Temperature,pH,DO,Turbidity/MLSS,SCT/TDS,OCA | |
| WM 6s 02 | Temperature,pH,DO,Turbidity/MLSS,SCT/TDS,Hardness | |
| WM 6s 03 | Temperature,pH,DO,$NO_2^-$,NH3,$S^{-2}$ | Aquaculture |

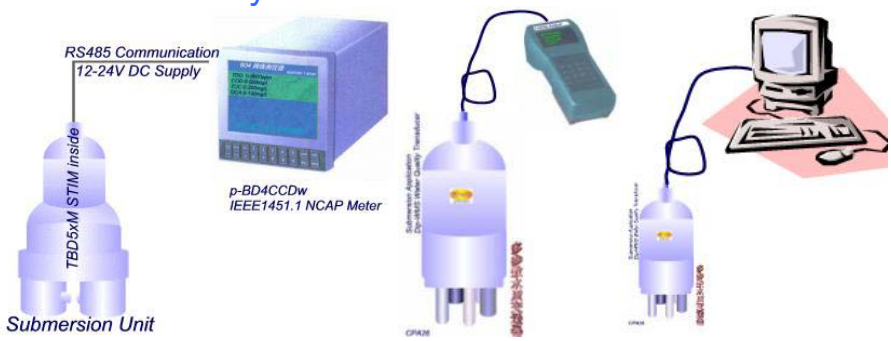
## CPA210

| | | |
|---|---|---|
| WM 7s 01 | Temperature, pH,DO,$NO_2^-$,$NH_3$,$S^{-2}$,ORP | Aquaculture |
| WM 7s 01D | Temperature, Pressure/Depth,pH,DO,$NO_2^-$,$NH_3$,$S^{-2}$,ORP | Aquaculture |
| WM 7s 02 | Temperature, pH,DO,$NO_2^-$,NH3,$S^{-2}$,$Cl_2$ | Aquaculture |
| WM 7s 03 | Temperature, pH,DO,$Cl_2$,$NO_2^-$,$NH_3$,$S^{-2}$,ORP | Aquaculture |
| WM 8s 04 | Temperature, pH,DO,$NO_2^-$,$NH_3$,$S^{-2}$,$Cl_2$,ORP | Aquaculture |
| WM 9s 02 | Temperature, pH,DO,Hardness,MLSS,SCT/TDS,$CO_2$,$Na^+$,$Cl^-$ | Boiler water |
| WM 11s 02 | Temperature, pH,TURB,TDS,$Ca^{+2}$,LAS,$Cl^-$,$F^-$,$CN^-$,$NO_3^-$,$Cl_2$ | Drinking water |
| WM 13s 01 | Temperature, pH,DO,MLSS,TDS,$CO_2$,$Cl_2$,$Cl^-$,$Ca^{+2}$,$NO_3^-$,$NO_2^-$,$NH_3$,$O_3$ | Sea fishery |
| WM 13s 01D | Temperature, Pressure/Depth,pH,DO,MLSS,TDS,$CO_2$,$Cl_2$,$Cl^-$,$Ca^{+2}$,$NO_3^-$,$NO_2^-$,$NH_3$,$O_3$ | Sea fishery |

## CPA220

| | | |
|---|---|---|
| WM 8s 01 | Temperature,pH,TDS,OCA,$Cl^-$,$S^{-2}$,$F^-$,$BF_4^-$ | Agriculture |
| WM 8s 02 | Temperature,pH,DO,MLSS,OCA,$CN^-$,$S^{-2}$,$F^-$ | Fishery |
| WM 8s 03 | Temperature,pH,DO,MLSS,OCA,$CN^-$,$S^{-2}$,$NH_4^+$/$NH_3$ | Ocean |
| WM 9s 01 | Temperature,pH,MLSS,OCA,$CN^-$,$S^{-2}$,$NH_3$,$F^-$,LAS | Waste water |
| WM 11s 01 | Temperature,pH,DO,OCA,$Cl^-$,$NO_3^-$,$NO_2^-$,$NH_3$,$F^-$,$CN^-$,LAS | Surface |
| WM 12s 01 | Temperature,pH,DO,OCA,$Cl^-$,$NO_3^-$,$NO_2^-$,$NH_3$,$F^-$,$CN^-$,LAS, Chlorophyll | Surface |

# General User System




1） Fixed Installation by pBD4MCDw and M10
2） Portable Instruments byH-BD5w and M10
3） Data Acquisition by PC from M10

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## More Information for Water Transducers

Water transducer: http://www.fullsense.com/Products/Water/
Electrochemical transducer:http://www.fullsense.com/Products/BD3000/CPT3200/CPT3200IntE.htm
Electrochemical sensor: http://www.fullsense.com/Products/BD3000/CPelectrodeList_E.htm
Conductivity transducer:http://www.fullsense.com/Products/Liquid/Water/SCT/SCTIntE.htm
Turbidity transducer:http://www.fullsense.com/Products/Liquid/Water/Turbidity/TurbIntE.htm
Mud concentration transducer: http://www.fullsense.com/Products/Liquid/Water/Mud/MudIntE.htm
TDO(TOC/COD/BOD) transducer: http://www.fullsense.com/Products/Liquid/Water/TDO/UV4120TDOIntE.htm
Multi-parameters transducer: http://www.fullsense.com/Products/Liquid/Water/wm10/wm10IntE.htm
Water transducer application: <examples>

## BD4Controller & BD5 STIM

http://www.fullsense.com/Meters/
BD4&5Introduction: http://www.fullsense.com/Meters/BD4_IntE.htm
BD4&5 Functions: http://www.fullsense.com/Meters/BD4_TB_E.thm
BD4&5 Selection: http://www.fullsense.com/Meters/BD4_Sel_E.htm
BD4_5Configuration: http://www.fullsense.com/MetersBD4_Cfg_E.htm
BD4Application: http://www.fullsense.com/Meters/BD4_AG_E.htm

## Related Technical References

http://www.fullsense.com/Network/
Scom Protocol
STIMcom Protocol
IEEE1451.1 NCAP Protocol
IEEE1451.2 STIM Protocol