



Part-NET Interface



FURUNO



HP Part-**NET** Interface



HP Part-Net is the latest plotter interfaced touch screen monitor, for the control of full automatic RP TRONIC series HP Watermakers.

Normally watermakers are forgotten systems in the engine rooms. In most of the cases they are not even fully automated, so the user (Owner, Captain, Chief Engineer) is obliged to get down to the engine room and start the unit, playing with the pressure valve to produce water. Then once filled the tank getting back to the engine room for stopping and flushing the system. On 100 units sold in the worldwide boating industry market the 80 are manual or semi-automatic, requiring actions on the units themselves.

In 2003 HP Watermakers introduced the first fully automated machine (RPTRONIC) on the market, but still fully automated units and manual ones have been always compared as apple to apple, due to the fact they are installed in the engine room and they are not visible to the user.

HP Watermakers' idea behind Part-Net is to bring the watermaker in the hands of the users (Owner, Captain), which are involved in the machinery and accessories choice. In this way they can have access to the application of HP Watermakers directly from the plotters of any brand on the market, and while they are navigating, being able to use the watermakers, starting, stopping it, checking it, accessing all the functions without take their eyes off the navigation chart.

HP Part-Net

2020 REVOLUTION



- Part-Net is the first and only world wide user friendly interface for watermakers, compact easy to install and ready to communicate with all the plotters on the market, Garmin, Raymarine, Furuno, Simrad, B&G, Lowrance.
- Part-Net 7" touch screen is a hub which exchange the BUS signals from the watermaker's PLC and transforms it into html5 protocols to be sent to the screen itself, to the navigation plotters and to the Internet.
- Part-Net is equipped with 2 X RJ45 ports to be directly connected to the plotter hubs or to the internet switch. The communication through this port is direct, so once connected the ethernet cable to the plotters, automatically the watermaker hardware is detected and all the pages visualized by the browser on the touch screen remote control will be visualized also on the plotters. On some models like Raymarine Axiom, Simrad, B&G and Furuno HP Watermaker logo is shown in their app page by default even if the hardware is not connected. On Garmin the logo is shown only if the hardware is connected to the plotter.
- Once the hardware is connected, the user can control all the functions of HP Watermakers RP TRONIC series, directly from the chart plotters by browsing the different available pages.
- If a internet connection is available on board, Part-Net will be able to send the same htmls pages on the internet, where the machine will be controlled by its dedicated cloud portal for the BiBi telecontrol system.

HP Part-Net

2020 REVOLUTION

- The HP Watermakers Logo is listed in the 3rd part application page of all the plotters producers (in the Furuno comes out from the main screen, and in Raymarine and Simrad and B&G is by default listed with the last release of their software, on the Garmin the logo is shown only if the hardware is detected)

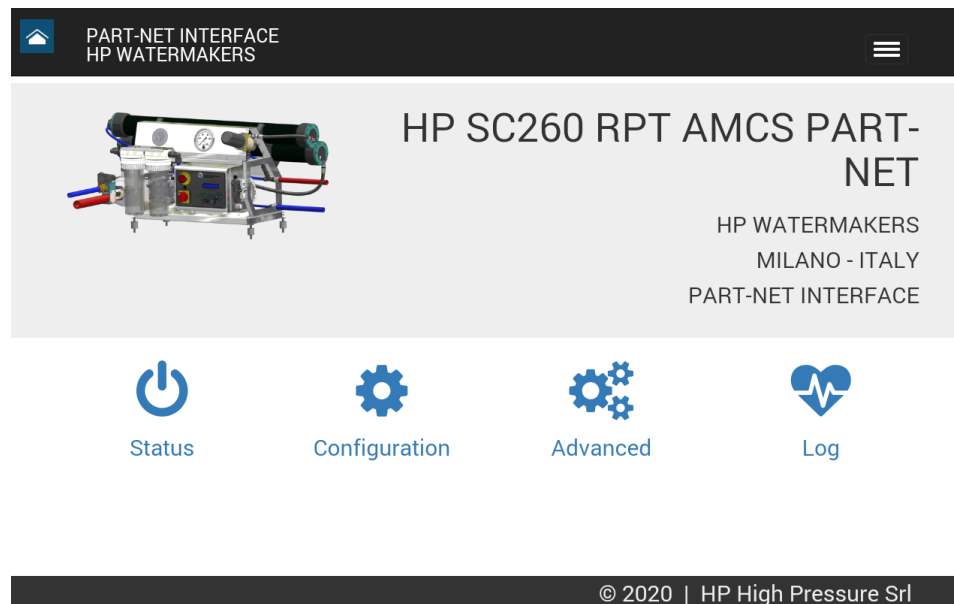


Furuno NavNet screen shot

HP Part-Net

2020 REVOLUTION

- The interface allows to switch the watermaker ON & OFF, reset the alarms, monitor the operations and check all the data of the machine connected to the Garmin, Raymarine and Furuno, Simrad, B&G, Lowrance. The first page of the application will show the type of unit and it is customizable with the data of the boat and or the shipyard.



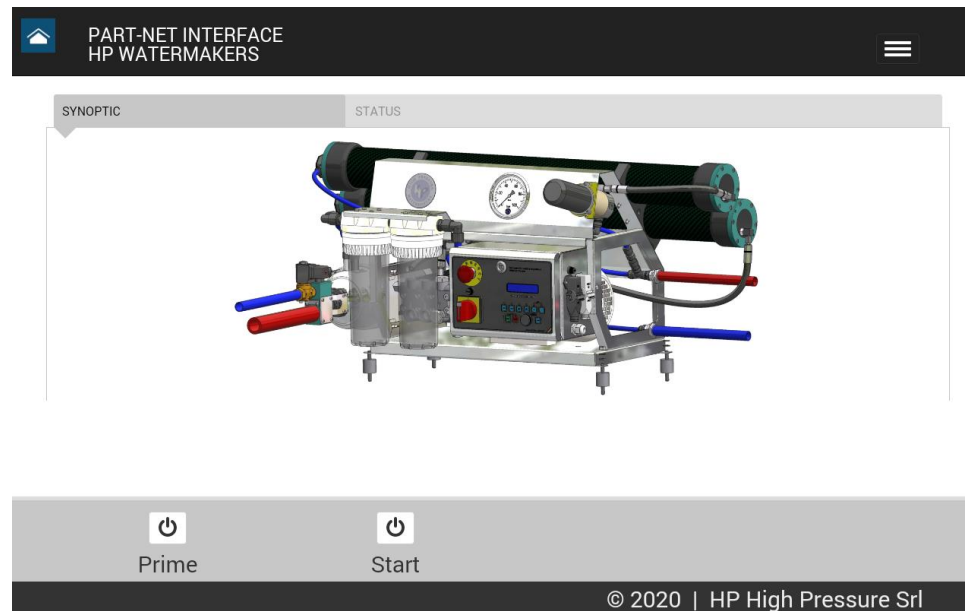
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Furuno NavNet screen shot

HP Part-Net

2020 REVOLUTION

- The visualization of the machine functionalities is synoptic, with the image of the watermaker and the moving water lines, during the system operation.

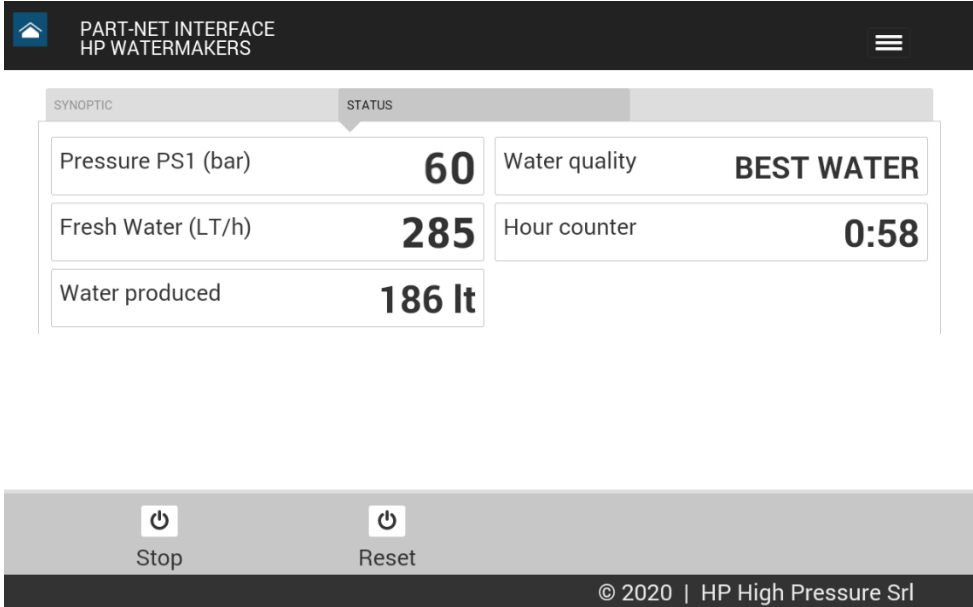


Furuno NavNet screen shot

HP Part-Net

2020 REVOLUTION

- The visualization of the machine functionality is also analogical with the production data as working hours, total water production, working pressure, actual production and water quality.



The screenshot displays the 'PART-NET INTERFACE HP WATERMAKERS' dashboard. It features a 'STATUS' tab with the following data:

Pressure PS1 (bar)	60	Water quality	BEST WATER
Fresh Water (LT/h)	285	Hour counter	0:58
Water produced	186 lt		

At the bottom, there are 'Stop' and 'Reset' buttons, and a copyright notice: © 2020 | HP High Pressure Srl

Furuno NavNet screen shot

HP Part-Net

2020 REVOLUTION

- During any eventual technical services, Part-Net will show the sensor status, giving the possibility to enable and disable all the unit sensors. The page is protected by a 4 digit PIN.



PART-NET INTERFACE
HP WATERMAKERS

Base configuration

LOGOUT FROM SETTINGS
CHANGE PIN

ADD DEC	Register	Value	Unit	
120	SENSORS DISABLING	<input checked="" type="checkbox"/> PS1 <input checked="" type="checkbox"/> CS1 <input checked="" type="checkbox"/> GALL1 <input checked="" type="checkbox"/> GALL4 <input checked="" type="checkbox"/> PSW2	<input checked="" type="checkbox"/> PS2 <input type="checkbox"/> CS2 <input checked="" type="checkbox"/> GALL2 <input checked="" type="checkbox"/> VOLTAGE <input checked="" type="checkbox"/> PSA	<input checked="" type="checkbox"/> TS <input checked="" type="checkbox"/> GALL0 <input checked="" type="checkbox"/> GALL3 <input type="checkbox"/> PSW1 <input checked="" type="checkbox"/> TEST IN ANA
360	Pressure	0		
361	Salinity	73		

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Furuno NavNet screen shot

HP Part-Net

2020 REVOLUTION

- During the technical services, Part-Net will show all the machine parameters which can be adjusted, including the calibration of the sensors and all automatic systems' functionalities calibration. The page is protected by a 4 digit PIN.

PART-NET INTERFACE
HP WATERMAKERS
☰

Advanced configuration

ADD DEC	Register	Value	Unit	Action
100	WORKING PRESSURE	<input type="text" value="60"/>	bar	EDIT
101	MIN PRESSURE ALARM	<input type="text" value="25"/>	bar	EDIT
102	MAX PRESSURE ALARM	<input type="text" value="72"/>	bar	EDIT
103	Automatic pressure	<input type="text" value="2"/>	sec	EDIT
104	Wait pressure	<input type="text" value="28"/>	sec	EDIT
105	T.X10 WASHING TIME	<input type="text" value="50"/>	sec	EDIT
106	Prime Time	<input type="text" value="10"/>	sec	EDIT
107	Wait Time	<input type="text" value="30"/>	sec	EDIT
108	PUMP TIME	<input type="text" value=""/>	sec	EDIT

LOGOUT FROM SETTINGS

CHANGE PIN

Plant Status

Flux: 0 Lt/h
 Pressure: 0 bar
 Salinity: 73
 Temperature: 0 °C
 Current: 0 A
 Tension: 237 V

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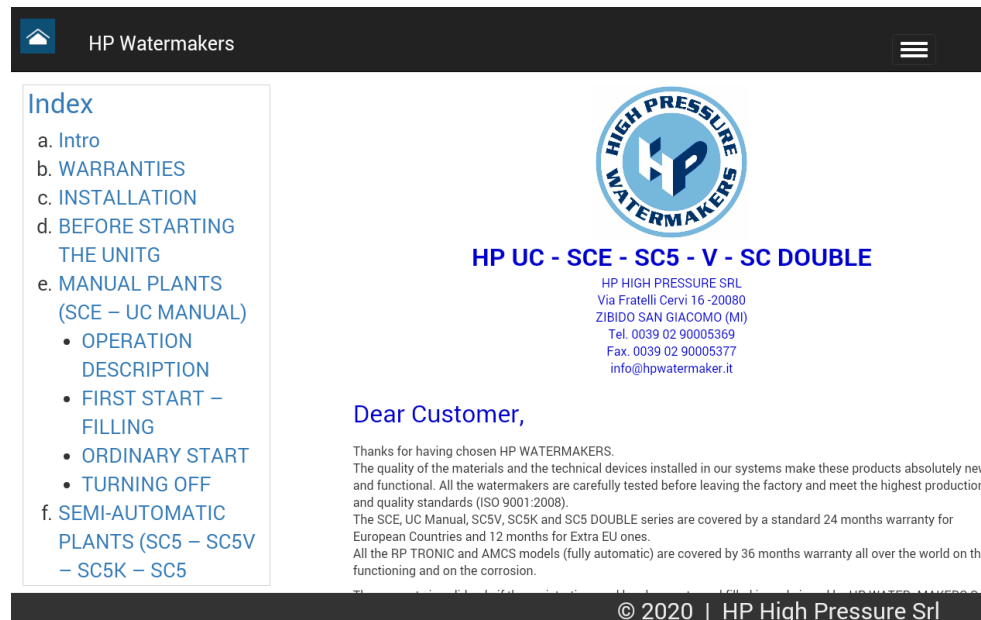
Furuno NavNet screen shot



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2020 REVOLUTION

- Part-Net will show the user and troubleshooting manual directly on the plotters, in order to have all the necessary pieces of information related to the watermaker function.



The screenshot shows a web interface for HP Watermakers. At the top, there is a navigation bar with a home icon, the text "HP Watermakers", and a hamburger menu icon. Below the navigation bar, the page is divided into two main sections. On the left, there is an "Index" section with a list of links: "a. Intro", "b. WARRANTIES", "c. INSTALLATION", "d. BEFORE STARTING THE UNITG", "e. MANUAL PLANTS (SCE – UC MANUAL)", "f. SEMI-AUTOMATIC PLANTS (SC5 – SC5V – SC5K – SC5)", and "g. OPERATION DESCRIPTION". On the right, there is a circular logo for "HIGH PRESSURE WATERMAKERS" with the letters "HP" in the center. Below the logo, the text "HP UC - SCE - SC5 - V - SC DOUBLE" is displayed. Underneath this, contact information is provided: "HP HIGH PRESSURE SRL", "Via Fratelli Cervi 16 -20080 ZIBIDO SAN GIACOMO (MI)", "Tel. 0039 02 90005369", "Fax. 0039 02 90005377", and "info@hpwatermaker.it". Below the contact information, there is a "Dear Customer," heading followed by a paragraph of text: "Thanks for having chosen HP WATERMAKERS. The quality of the materials and the technical devices installed in our systems make these products absolutely new and functional. All the watermakers are carefully tested before leaving the factory and meet the highest production and quality standards (ISO 9001:2008). The SCE, UC Manual, SC5V, SC5K and SC5 DOUBLE series are covered by a standard 24 months warranty for European Countries and 12 months for Extra EU ones. All the RP TRONIC and AMCS models (fully automatic) are covered by 36 months warranty all over the world on the functioning and on the corrosion." At the bottom of the page, there is a footer with the text "© 2020 | HP High Pressure Srl".

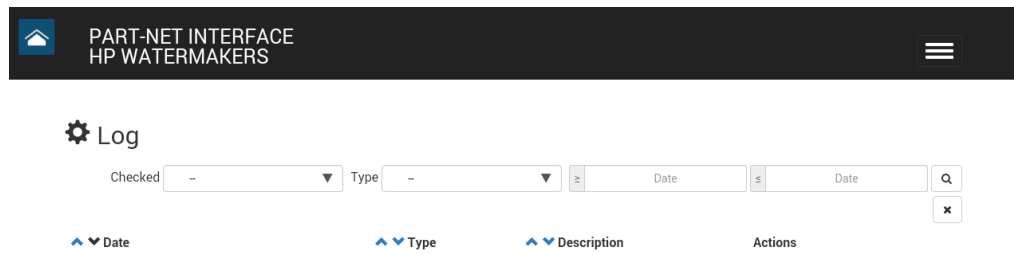
Furuno NavNet screen shot



HP Part-Net

2020 REVOLUTION

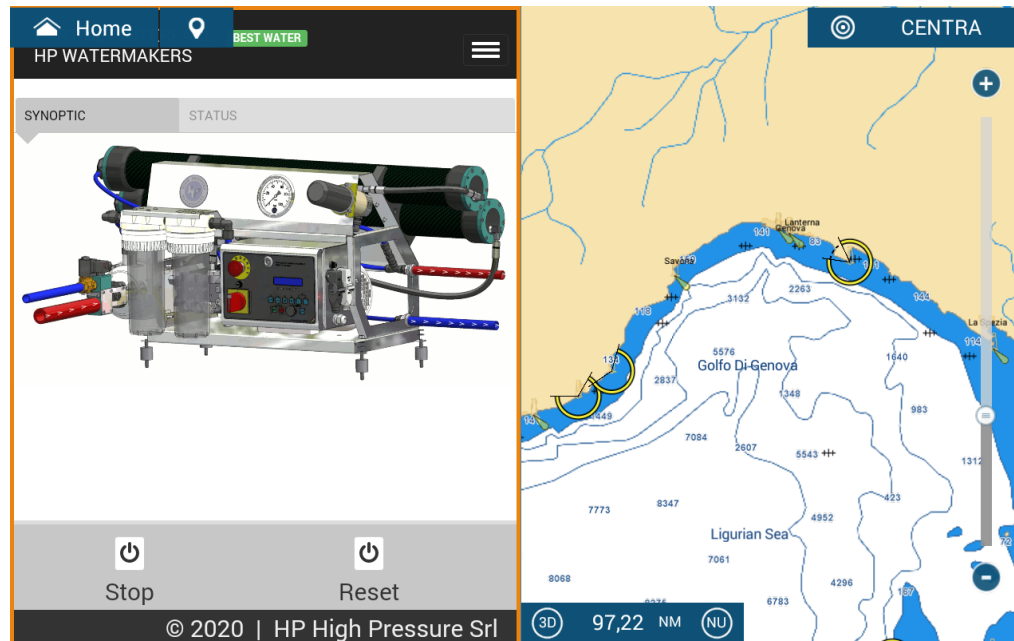
- Part-Net will display on the plotter screens also the LOG of the watermaker. All the start and stop and reset operation will be displayed and will be monitored all the alarms generated during the watermaker functioning.



The screenshot shows the 'PART-NET INTERFACE HP WATERMAKERS' header with a home icon and a menu icon. Below it is a 'Log' section with a gear icon. The log filter area includes 'Checked' (dropdown), 'Type' (dropdown), and two date fields with operators (≥ and ≤) and a search icon. Below the filters are expandable headers for 'Date', 'Type', 'Description', and 'Actions'.

HP Part-Net

2020 REVOLUTION



Furuno NavNet screen shot

HOW DOES IT WORK

Part-Net is a 7" touch screen watermakers' remote control based on an intelligent interface module based on Linux operating system to generate and manage HTML5 pages connected to the plotters.

The integration between Part-Net and the plotters is direct with a standard RJ45 ethernet cable. The integration software which has been developed auto-discovers the plotter software and interacts directly rendering the pages visualisation immediate.

The watermaker then can be used from the Part-Net touch screen or from the plotter with simple and user friendly interactive pages.

If internet is available on board, from the second ethernet port and via RJ45 cable Part-net can be connected to the internet. A dedicated portal providing the BiBi service is active since 2017. The user which have chosen to add the BiBi premium service to its package will have his credential to access his internet remote control for the watermaker and will be able to have the same functions available on the plotters or on board remote control, directly from any internet connected device.

PLOTTER COMPATIBILITY

Part-Net is directly integrated and compatible with the plotters:

GARMIN 

Raymarine[®]

FURUNO

SIMRAD

LOWRANCE

B&G

Prototype Applications



Azimut 78 - 2020

Prototype Applications



Absolute Navetta 68 – 2020

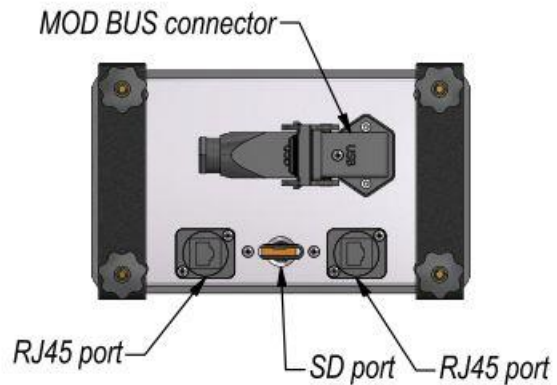
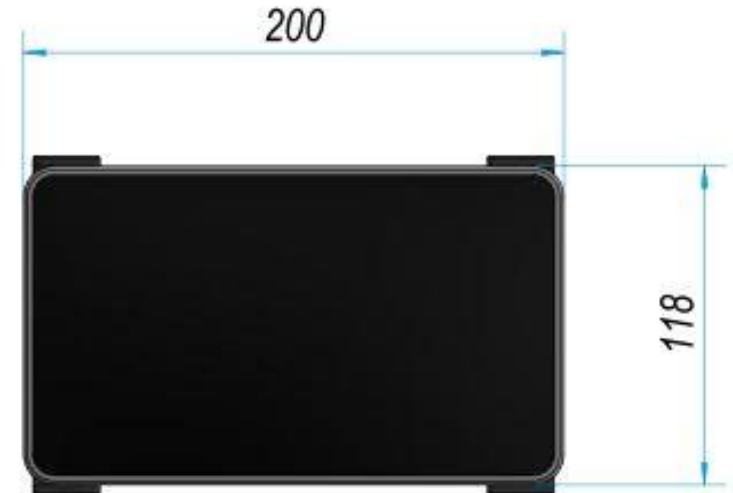
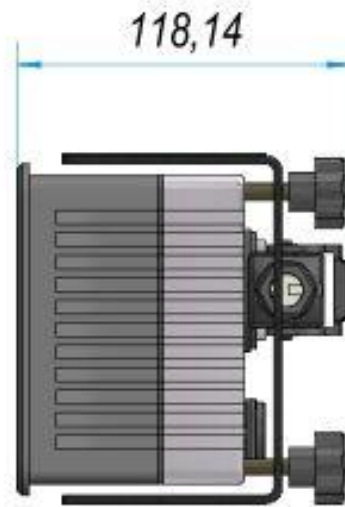
HP Watermakers research for the best Customer experience

- Since the beginning, HP's priority has been the customer's comfort, and satisfaction
- In 1997 HP introduced the first automatic flushing system, followed by the RP-TRONIC automatic pressure regulation system in 2002 (first fully automatic watermaker of the market) 2017 the priority service with telecontrol BiBi.
- In 2020 with HP Part-Net the comfort reaches the next level, the watermaker at one touch directly from all the available plotter on the market.

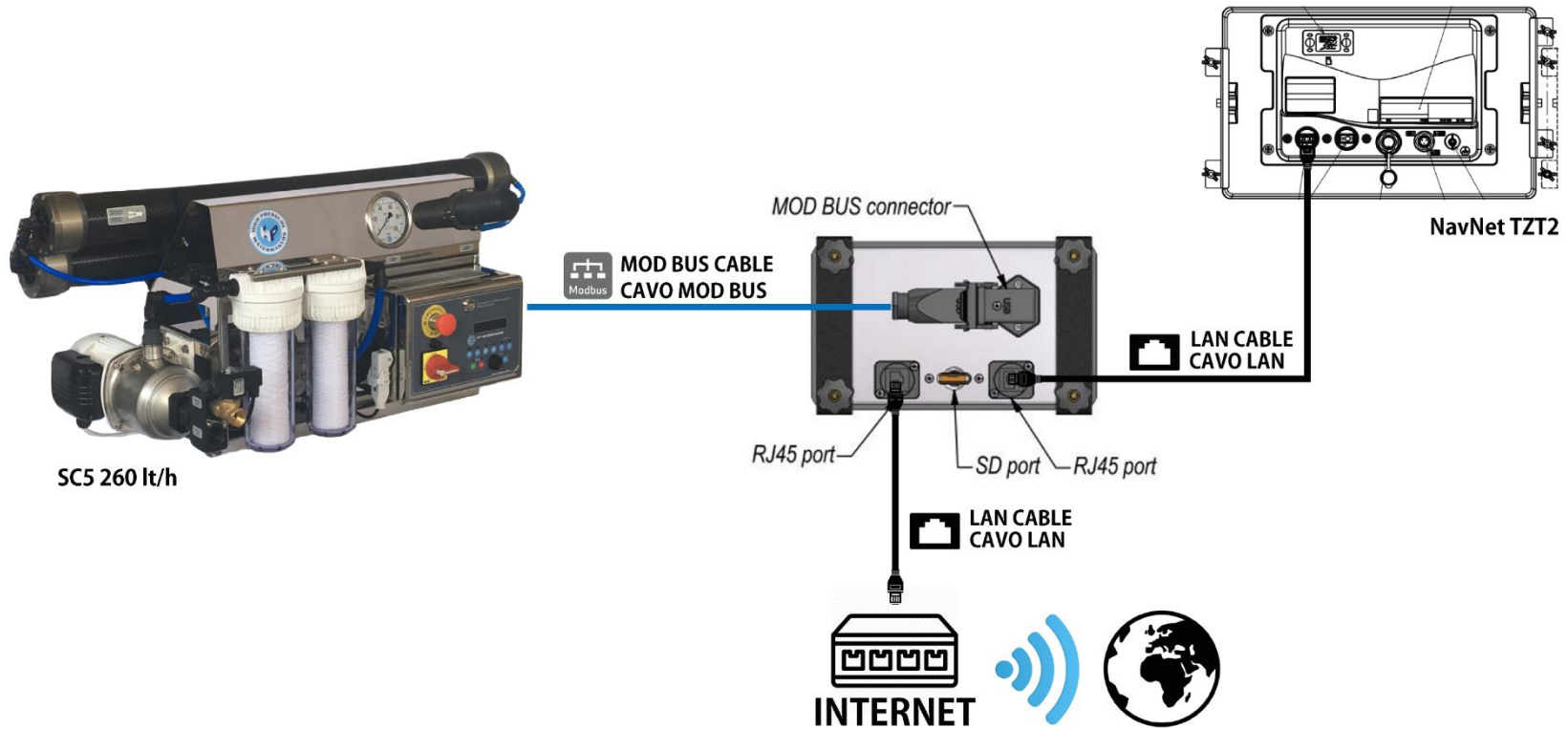
Data Sheet

Part-Net 7" touch screen display remote control is built in a high coated anodized aluminum frame.

The system has two RJ45 ports, one for the connection to the plotter and one to the internet. One MODBUS plug for the connection to the watermaker and one slot for the Mini SD containing the file and the data.



Connection scheme



HP Part-Net

Link to

<http://www.hpwatermaker.it/en/hpinterface.php>