

BESI Control System

Open System

Designed as an open system – products from other manufacturers such as loading computers – can easily be connected to the BESI system via Ethernet switch.

If a communication partner cannot provide an Ethernet connection, or if the port is already in use, a serial RS485 interface is available.

REFERENCES

Partnership in Flow Management

We associate with nearly all major shipyards worldwide. Until this moment, more than 4000 ships and offshore facilities have been equipped with BESI systems. To get a complete reference list, please get in contact with us.

Typical designs and functions of panel menus are :

Mimic diagram

- Ballast system
- Bilge system
- Fuel oil system
- Anti Heeling System.
- Water Ingress system
- Remote control

RC-Valves open/close operation

- Ballast pumps on/off operations
- Anti Heeling System
- Remote control Start / Stop Ballast Pump 1&2
- Remote control Start / Stop HFO Pump 1&2

Indications

- RC-Valves position open/close
- Ballast Pumps running
- HFO Pumps running
- Tank level indications Ballast Water, HFO, MDO, F-Water
- Draft, from sensors

Alarms

- Bilge alarms
- HFO tank alarms HLA , and HHLA
- MDO tank alarm HLA , and HHLA
- Heeling angle
- Water Ingress System

BCS BESI Control System



BESI Control System

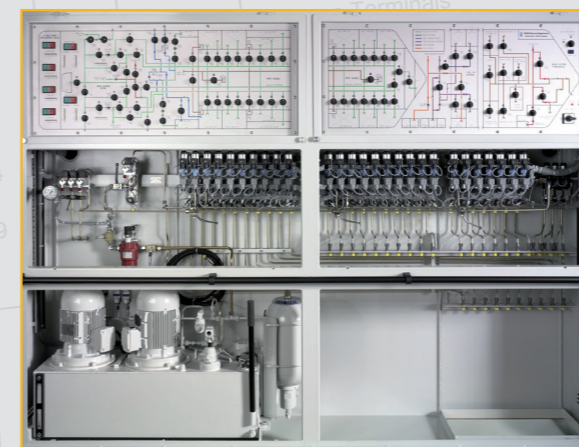
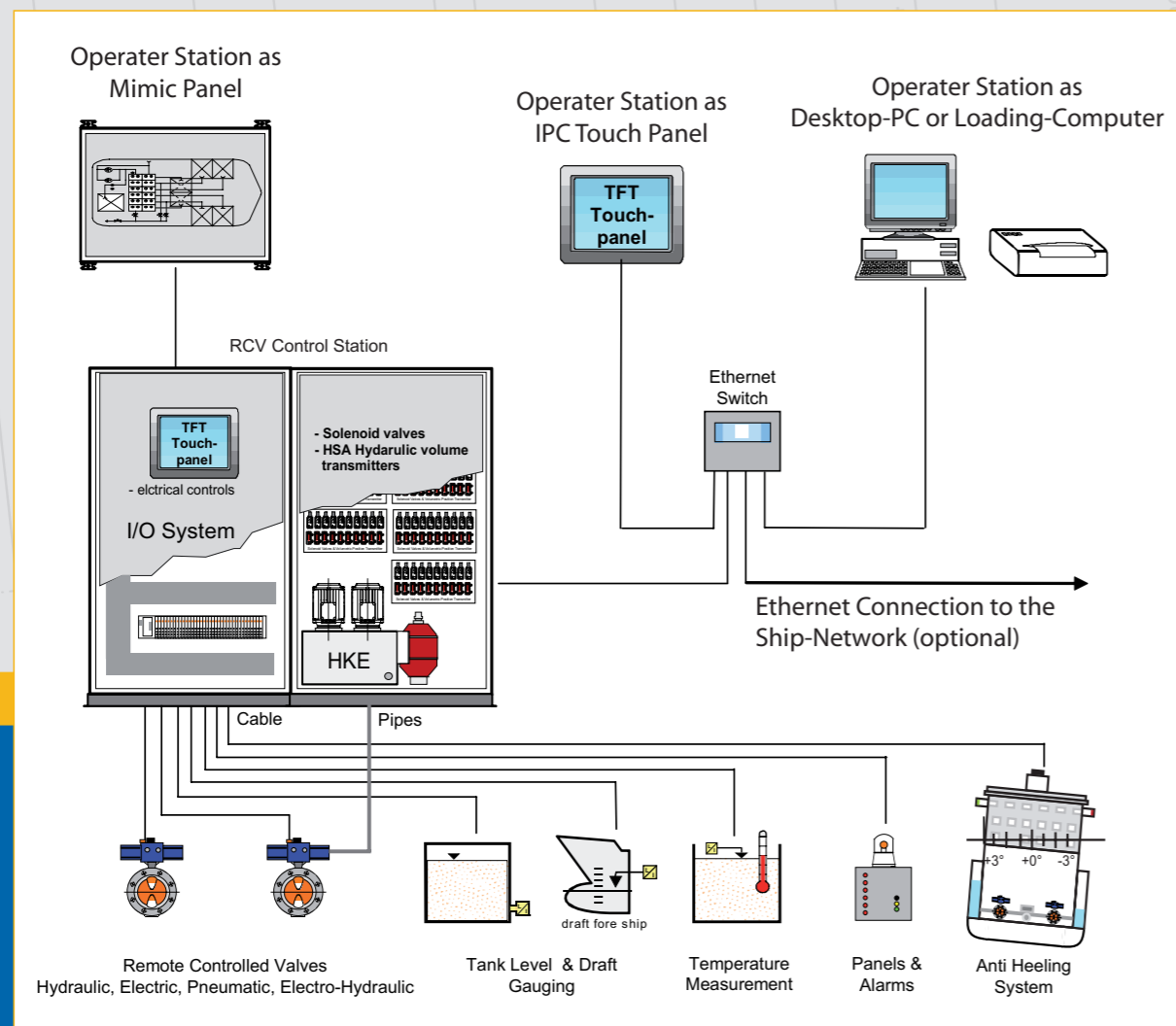
As an integral part of **BESI's flow management systems**, **Control Systems for Remote Controlled Valves (RCV)**, **Tank Level Gauging (TLV)** and **Anti Heeling System (AHS)** are offered.

Control Stations

BESI designs and produces centralized and decentralized control stations for **hydraulic, pneumatic, electric and electro-hydraulic systems**. These control stations are designed according to the rules and requirements of all major classification societies and contain all necessary components, such as power packs, for safe operation of the system.

All digital and analogue incoming and outgoing signals from the field components - like limit switches of the valves, tank level sensors, floating switches, or even local operator panels – are transmitted to **I/O units**, mounted in the centralized or decentralized control cabinet(s).

All **I/O units** are controller-based and have an Ethernet interface which provides the maximum number of communication channels and protocols. This keeps the system flexible in all the channels while opening the gate for decentralized designs.



Operator Stations

Specially designed computer-based operator stations operate and monitor the **RCV**, **TLG** and **AHS systems**. For the **Engine Control Room (ECR)**, a class-approved fanless operating Touch Panel **IPC** (with no keyboard or mouse unit necessary) is available. This panel features flush-mounting on the control cabinet door. Other Operator Stations – for example in the Decks Office – operate with a specially-designed desktop computer complete with TFT colour monitor, mouse and keyboard.

Each operator station is able to operate in a **“stand-alone”** mode. A software interlock with password levels is integrated to deny unauthorized access.

The operator / user panels (**HMI**) are based on a clearly arranged graphical overview. All functions are simple and menu-assisted, which provide maximum convenience to secure and save operations (see below some samples of screenshots).



Certificates

BESI possesses the required certificates from major classification societies.