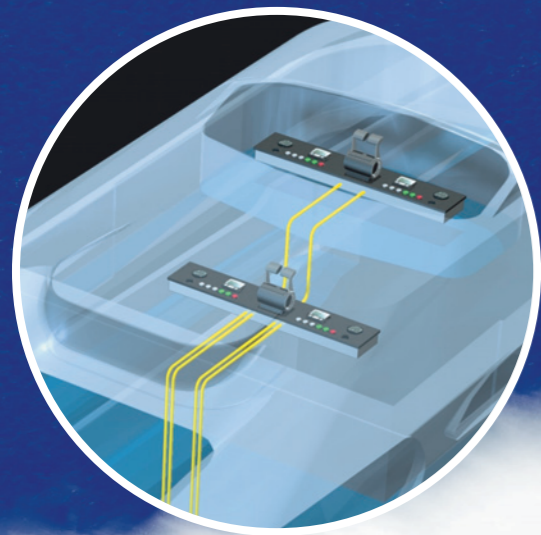


Ship Automation Systems

smartline
blueline
bluevision

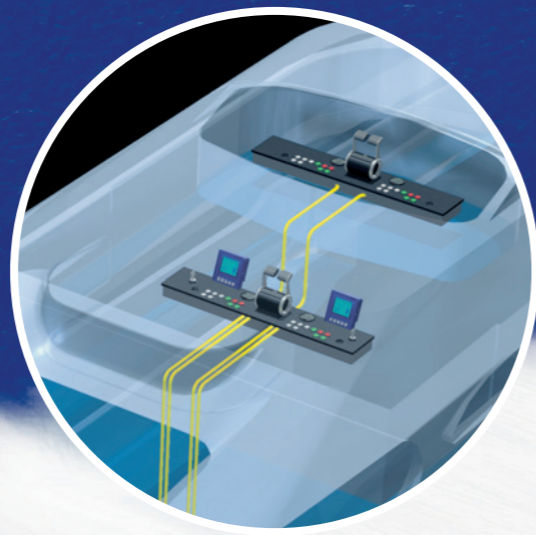


Customizing standard systems is a job for people who really know your boat: MTU.



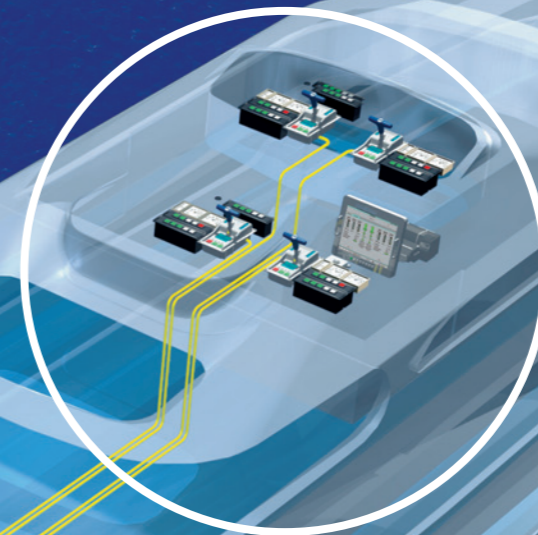
smartline

smartline is a monitoring system for Series S60 and 2000 engines which incorporates a deliberately simple design, is quick to install and is available at particularly favourable conditions. It is primarily used in smaller yachts and workboats.



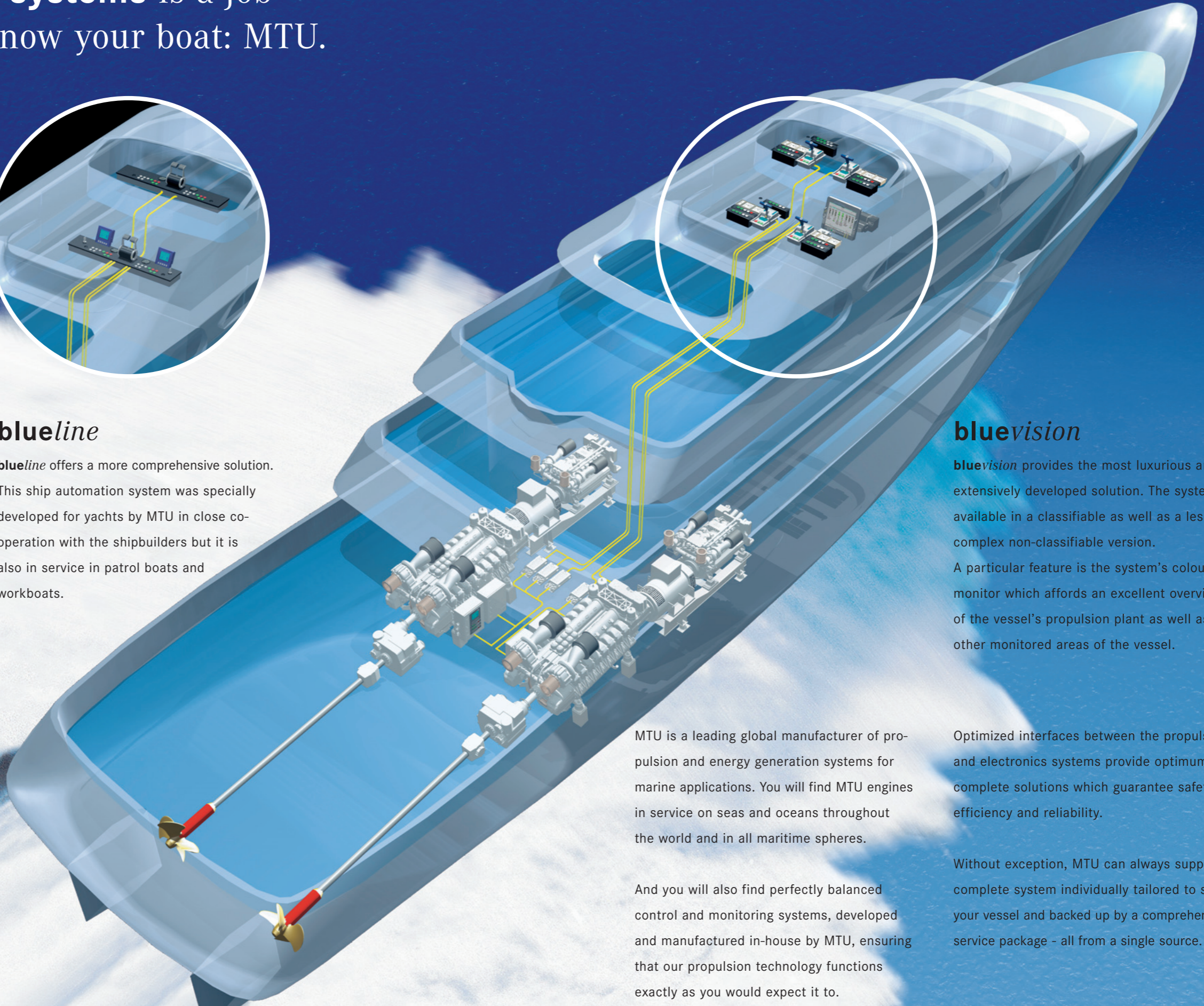
blue line

blue line offers a more comprehensive solution. This ship automation system was specially developed for yachts by MTU in close cooperation with the shipbuilders but it is also in service in patrol boats and workboats.



blue vision

blue vision provides the most luxurious and extensively developed solution. The system is available in a classifiable as well as a less complex non-classifiable version. A particular feature is the system's colour monitor which affords an excellent overview of the vessel's propulsion plant as well as other monitored areas of the vessel.



MTU is a leading global manufacturer of propulsion and energy generation systems for marine applications. You will find MTU engines in service on seas and oceans throughout the world and in all maritime spheres.

And you will also find perfectly balanced control and monitoring systems, developed and manufactured in-house by MTU, ensuring that our propulsion technology functions exactly as you would expect it to.

Optimized interfaces between the propulsion and electronics systems provide optimum complete solutions which guarantee safety, efficiency and reliability.

Without exception, MTU can always supply a complete system individually tailored to suit your vessel and backed up by a comprehensive service package - all from a single source.

There's more to **visualization** than just making Communication between Man and Machine.

smartline

Choice of display Versions I or II.
Both provide displays of essential engine and gearbox data.



Display Version I
monochrom 2,8''



Display Version II
colour display 6,5''

blueline

The **blueline**-colour graphics display provides detailed information on engine and gearbox status, limit values, system status and alarm messages.



Colour display 6''



Colour display* 7''
Indication twin engine plant

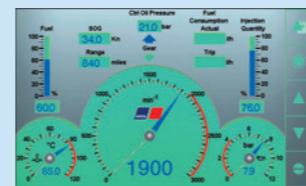
Extended language options on colour graphics display. In addition to the standard languages German, English, French, Italian and Spanish (other languages on request).

Fuel consumption display page for Series 2000 engines. Current fuel consumption data can be called up on a dedicated graphics display page which gives the following information:

- > Current fuel consumption
- > Total consumption
- > Trip consumption
- > Average trip consumption
- > Journey time
- > Consumption figures displayed optionally in litres or gallons (US standard)
- > Journey time reset
- > Switchable physical units



Indication example:
Night view

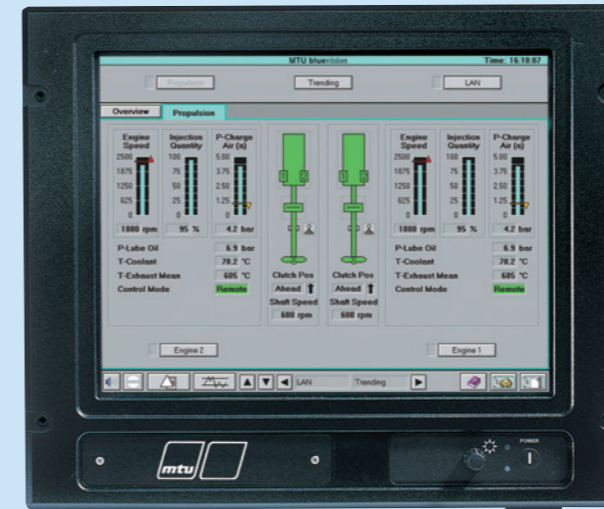


Indication example:
Single engine plant

* available soon

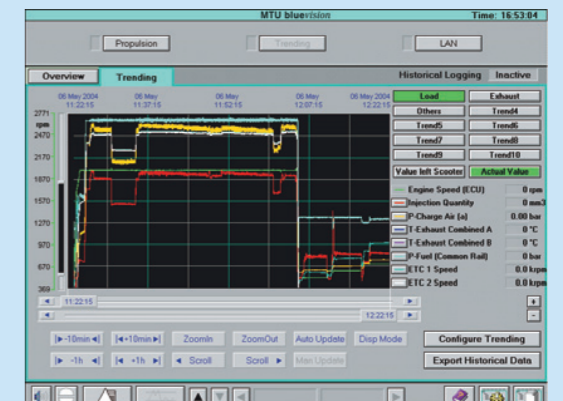
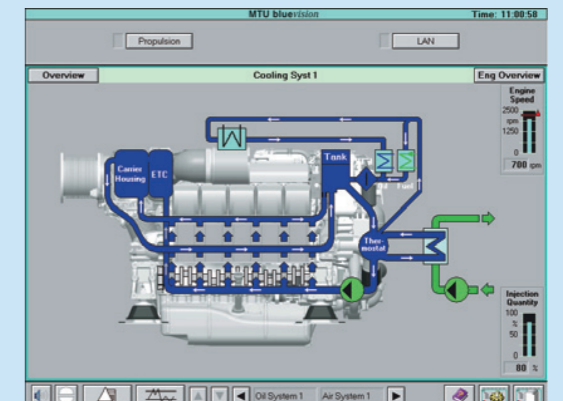
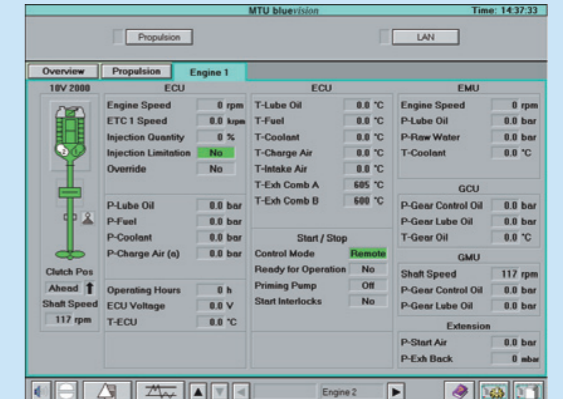
something visible:

bluevision



The TFT colour monitor, a major feature of the **bluevision** system, provides an excellent overview of the propulsion system and, as an option, over other on-board systems (e.g. tanks, bilges).

Because the high-resolution colour screen gives the operator access to all the information he or she needs, operation remains simple and practical despite the complexity of the system.



smartline

smartline has been exclusively designed for **non-classified** vessels and for use with:

- > Engine Series 2000 and S60*
- > FPP propulsion plants (Fixed Pitch Propeller)
- > Twin Engine

Key Characteristics

- > Attractive Pricing
- > One box design
- > Open interfaces
- > Few components
- > Flexible

Typical Configuration



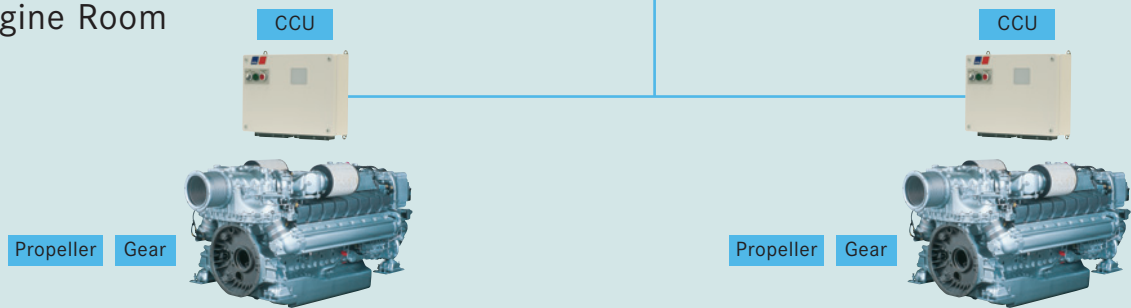
Slave Control Station



Main Control Station



Engine Room



Options

- > Extension for up to 6 control stands
- > Display Version I or Version II
- > Palm Beach Control Lever
- > Hand-held Propulsion Remote Control



Function panel for Palm Beach Control Lever

* available soon



blueline

blueline has been exclusively designed for **non-classified** vessels and for use with:

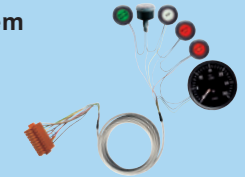
- > Engine Series 2000 and 4000
- > FPP propulsion plants (Fixed Pitch Propeller)
- > Twin Engine

Key Characteristics

- > Plug&Play System
- > Complete System Package
- > Modular System Design
- > Easy installation

Typical Configuration

Plug&Play System



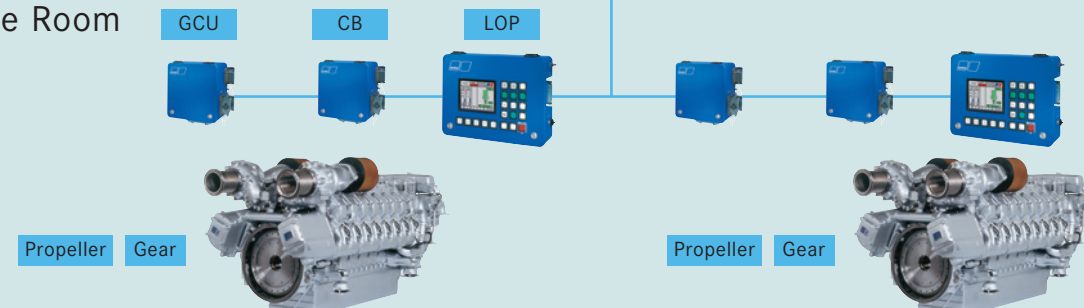
Slave Control Station



Main Control Station



Engine Room



Options

- > Extension for up to 4 control stands
- > Hand-held Propulsion Remote Control
- > Palm Beach Control Lever

* available soon



bluevision – non-classified

bluevision has been designed for **non-classified** vessels

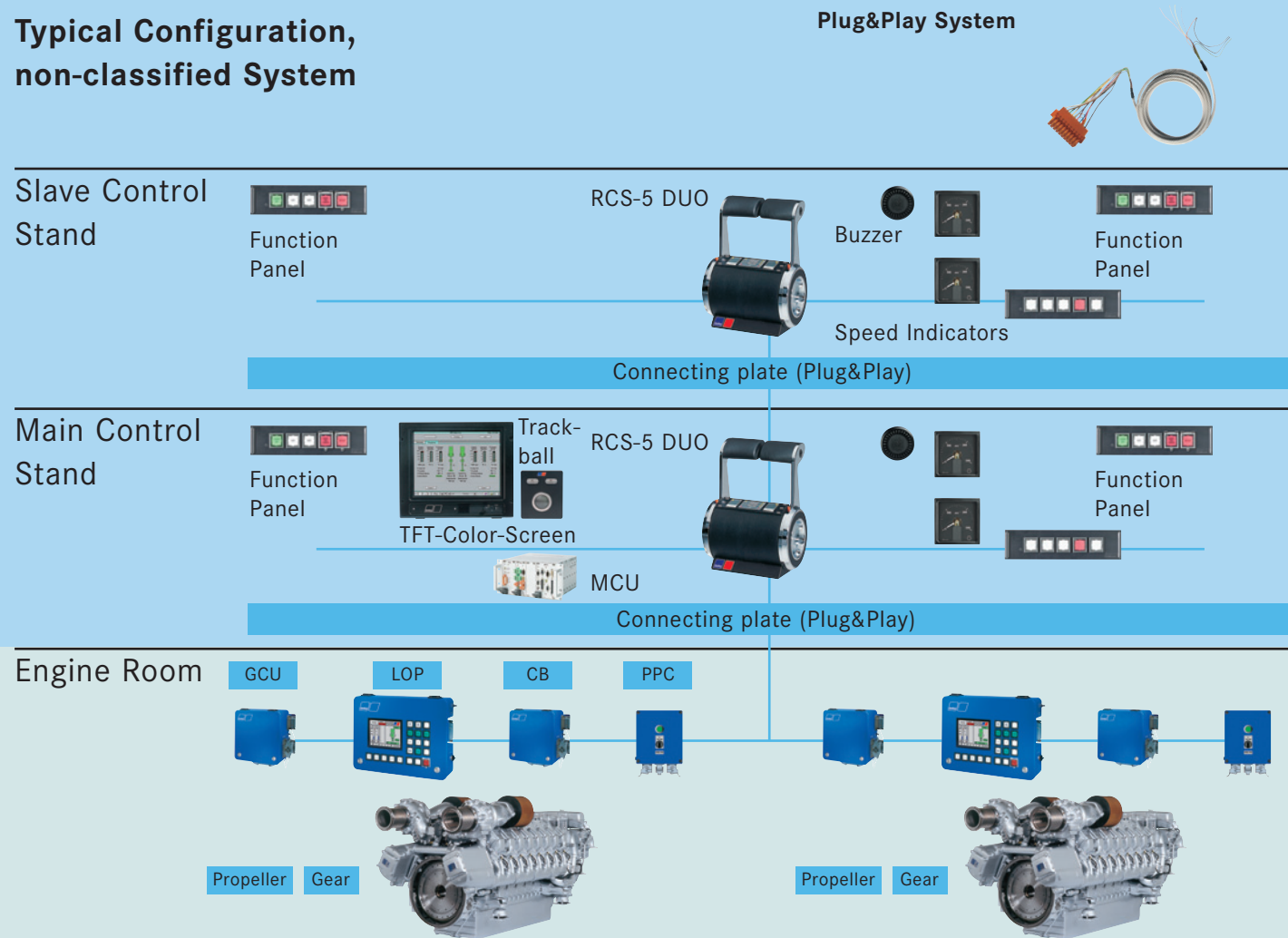
and for use with:

- > Engine Series 2000 and 4000
- > FPP, CPP, WJ, VSP
- > One to four engine propulsion plants

Key Characteristics

- > Plug&Play System
- > Sophisticated color visualization / TFT Color Screen

Typical Configuration, non-classified System



Options

- > Extension for up to 4 control stands
- > Printer
- > Hand-held Propulsion Remote Control



bluevision – classified

bluevision has been designed for **classified** vessels

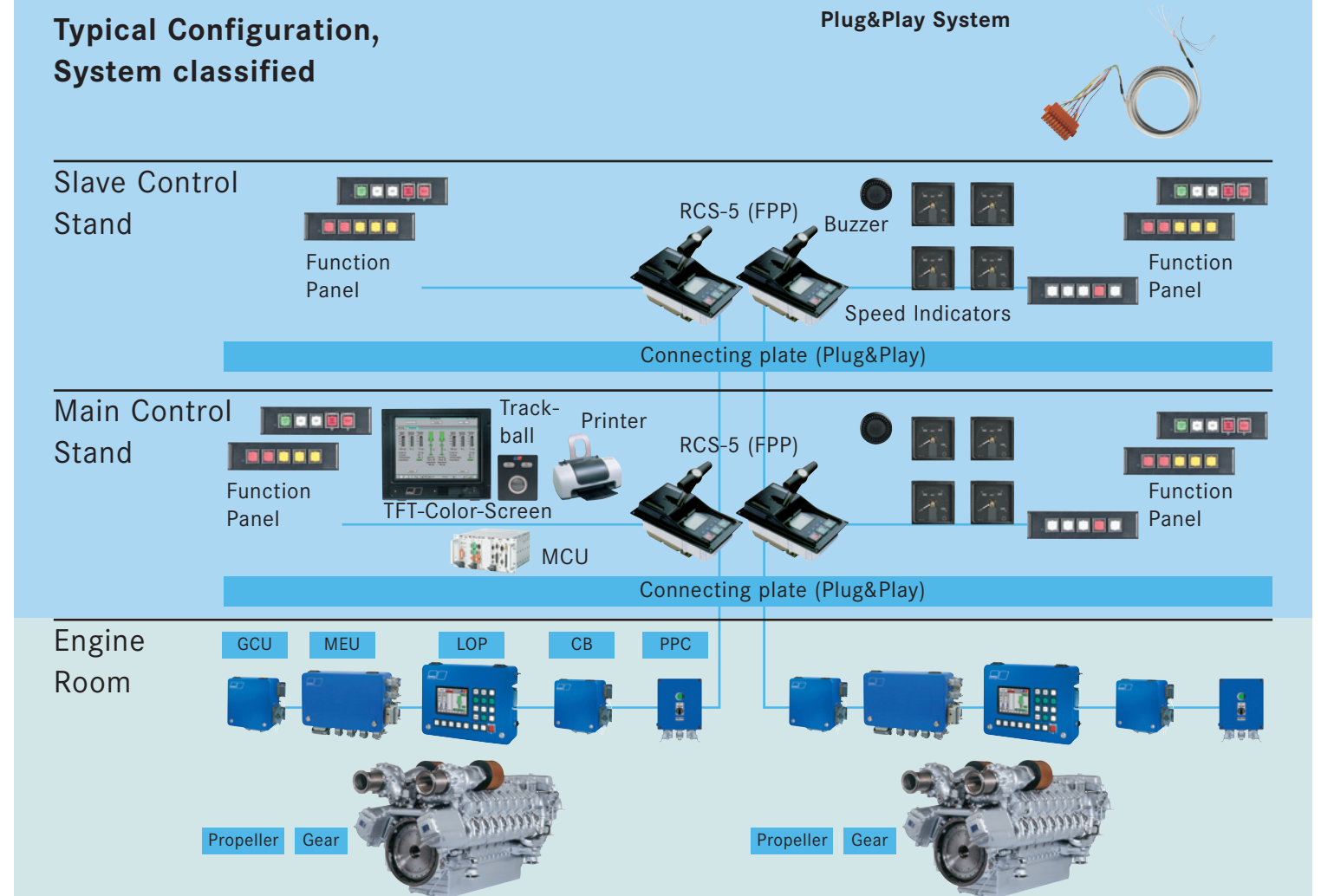
and for use with:

- > Engine Series 2000 and 4000
- > FPP, CPP, WJ, VSP
- > One to four engine propulsion plants

Key Characteristics

- > Plug&Play System
- > Sophisticated color visualization / TFT Color Screen

Typical Configuration, System classified



Options

- > Extension for up to 6 control stands
- > Printer



Engine and Electronics: Complete Systems in MTU Quality

MTU is certified to **DIN EN ISO 9001** (proven consistently applied quality management system).

All MTU electronic products carry the **CE mark**.

MTU subjects all devices and assemblies to an **FMEA (Failure Mode and Effect Analysis)**.

All MTU plants operate on a **24 V DC voltage** in accordance with international standards.

MTU fulfils all requirements laid down in international standards and the relevant ambient conditions, regulations and certifications for criteria such as:

- > Ambient temperature
- > Degree of protection IP (International Protection)
- > EMC electromagnetic compatibility conditions
- > Shock and vibration conditions (option)

For **bluevision** – classified MTU conducts acceptance testing including type tests according to the rules and regulations of all the relevant **classification societies** (e.g. for ABS, BV, CCS, DNV, GL, JG, KRS, LR, NKK, RINA).



Abbreviation List

ADEC	Advanced Diesel Engine Control
CAN	Controller Area Network
CB	Connection Box
CCU	Central Control Unit
CPP	Controllable Pitch Propeller
FMEA	Failure Mode and Effect. Analysis
FPP	Fixed Pitch Propeller
GCU	Gearbox Control Unit
LOP	Local Operating Panel
MCU	Management Computer Unit
MDEC	MTU Diesel Engine Control
MEU	Monitoring Extension Unit
PPC	Pre Lubrication Pump Control
RCS	Remote Control System
TFT	Thin Film Transistor Technique
VSP	Voith Schneider Propeller
WJ	Waterjet



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