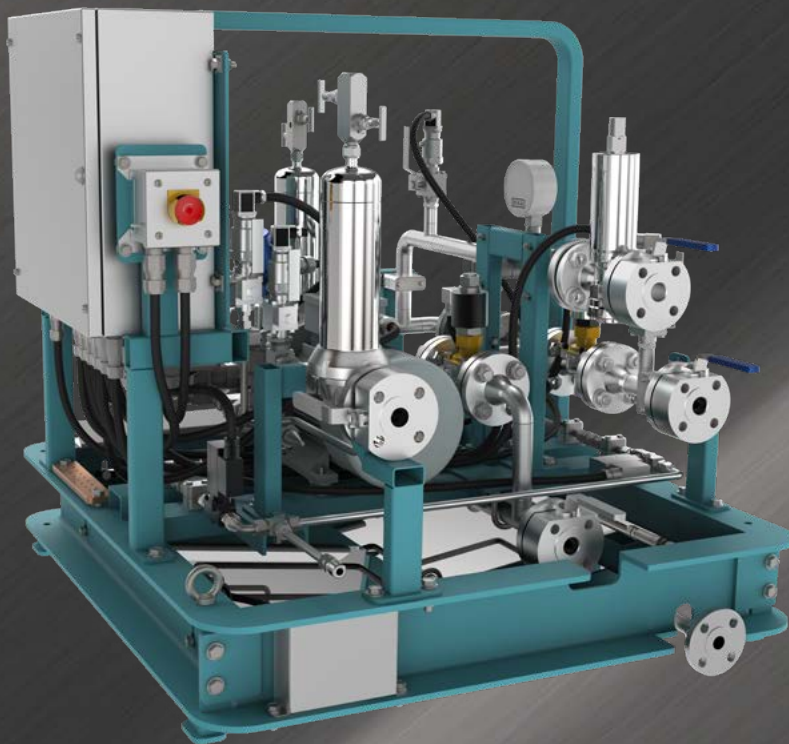


CONTROL & MONITORING SOLUTIONS

Marine, Industrial, Traction & Gas Turbine

Methanol Fuel Supply Skids



Fuel control valves



Hydraulic governors and actuators



HEINZMANN Regulateurs Europa CONTROL & MONITORING

Specialist for governing, control, regulation and monitoring solutions.

The catalogue summarises the HEINZMANN Regulateurs Europa offer for gas turbines, reciprocating engines, alternative fuels, marine, industrial and traction markets.

GAS TURBINES

- ▶ Gas turbine solutions
- ▶ Fuel control valves
- ▶ Fuel systems, ignition & wash

RECIPROCATING ENGINES

- ▶ Governors
- ▶ Actuators
- ▶ System components & test equipment

ALTERNATIVE FUELS

- ▶ Methanol fuel supply skid
- ▶ Methanol injector and gas admission valves

SERVICES

- ▶ Spares, overhaul & service exchange
- ▶ Application engineering

APPLICATIONS

- ▶ Industrial control & power management
- ▶ Marine & traction systems



HEINZMANN REGULATEURS EUROPA –
Specialist for Control & Monitoring

COMPANY & CAPABILITIES

HEINZMANN REGULATEURS EUROPA LTD.

UK OEM Center

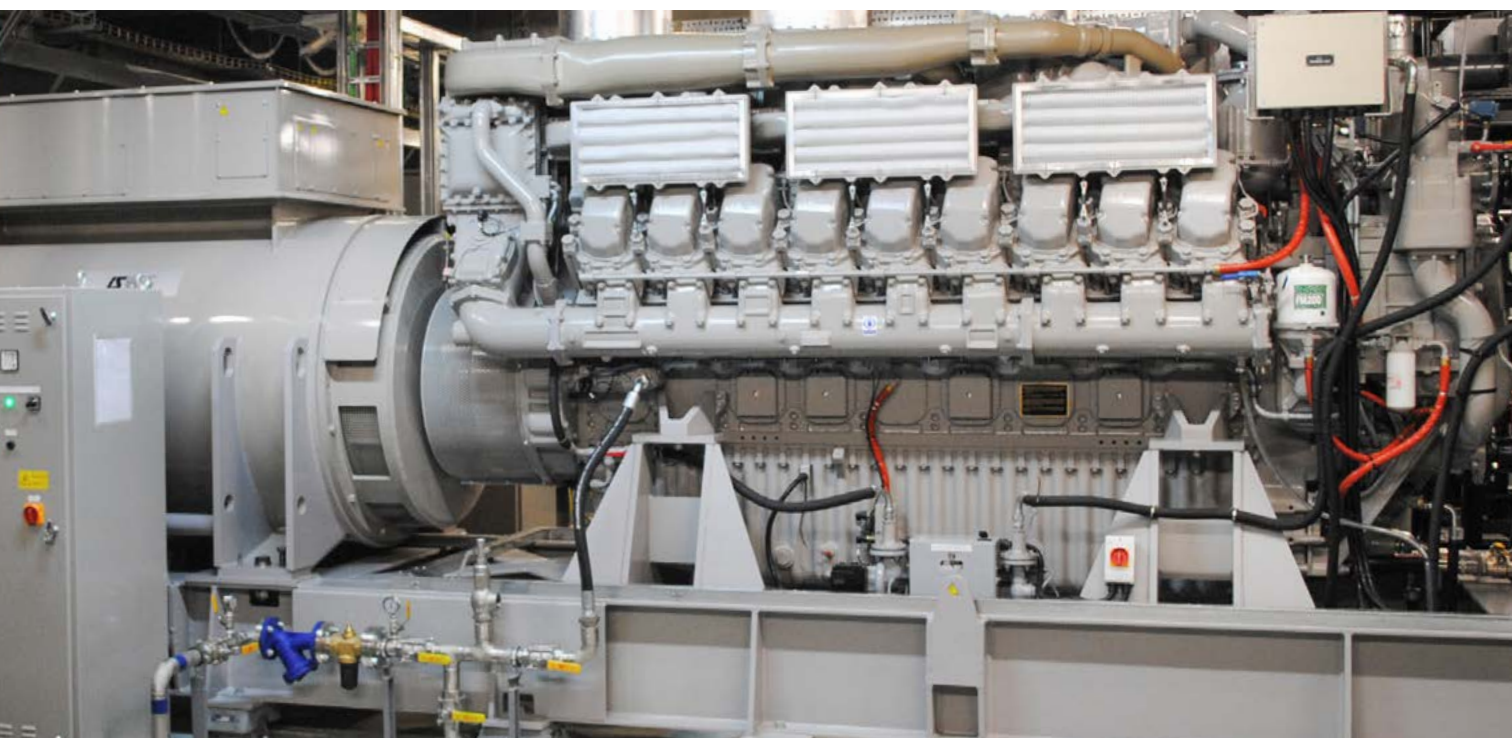
HEINZMANN Regulateurs Europa combines UK engineering, manufacturing and application know-how with the wider HEINZMANN Group portfolio. The product range covers component supply, engineered fuel systems, integrated control cabinets and retrofit upgrades.

Advanced control, regulation and monitoring products are supplied for rotating machinery in industrial, marine, traction and gas turbine applications. The catalogue is arranged by product family and market application to support sales discussions and initial product selection.

NEW BUILD AND RETROFIT

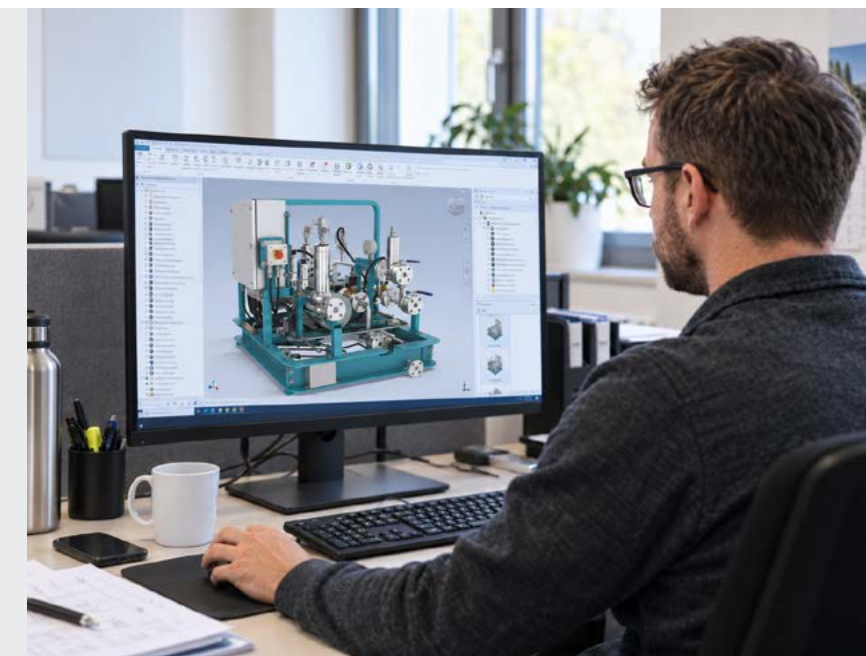
Solutions for new installations and replacement projects where a customer needs modern electronic control, improved accuracy or support for decarbonising fuels.

- ▶ Control retrofits
- ▶ Fuel system upgrades
- ▶ Tailored interfaces



HEINZMANN REGULATEURS EUROPA LTD CUSTOMERS BENEFIT FROM

- ▶ New-build and retrofit
- ▶ Application engineering
- ▶ Factory test and commissioning



INTEGRATED SYSTEMS

Cabinet-built systems, skids, field wiring, sensors and operator interfaces can be supplied as a complete project package.

- ▶ PLC / HMI / SCADA
- ▶ Tested assemblies
- ▶ Site support

CORE PRODUCT PLATFORMS

- ▶ Gas turbine control
- ▶ Reciprocating engine governing
- ▶ Industrial power management
- ▶ Marine and rail traction systems

GAS TURBINE SOLUTIONS

Fuel control, air control, ignition, compressor wash and fuel conditioning systems for industrial gas turbines.

The range supports new equipment, retrofit upgrades and replacement of obsolete fuel control equipment.

- ▶ High accuracy control
- ▶ Hazardous area options
- ▶ Retrofit friendly

FUEL CONTROL VALVES

Motorised throttle valves and digital fuel controllers for gas and liquid fuel applications.

- ▶ Gas, liquid and dual-fuel
- ▶ Integrated pressure sensing
- ▶ DLE and non-DLE machines

ROTARY & LINEAR ACTUATORS

Guide-vane and air-control actuation products for variable guide vanes, inlet guide vanes and bleed air systems.

- ▶ VGV-L linear
- ▶ ATEX options
- ▶ VGV-R rotary



FUEL SKIDS

Tailor-made fuel metering and conditioning systems built around turbine, fuel and site requirements.

- ▶ Gas, liquid and dual-fuel
- ▶ Integrated pressure sensing
- ▶ DLE and non-DLE machines

IGNITION & WASH

High-energy ignition and compressor wash products to support reliable turbine operation and performance recovery.

- ▶ PROMETHEUS ignition
- ▶ Hot high-pressure wash
- ▶ Static or portable wash

FUEL CONTROL VALVES

Gas & liquid fuel valves

Electric motor, digital electronic and safety technologies for gas and liquid fuel control. Products are selected for the engine, fuel, certification and control philosophy.

- ▶ Accurate metering
- ▶ Fast response
- ▶ Retrofit capability

EVOLUTION II-HT G

Gas fuel throttle valve with integrated valve, position servo and digital flow controller. Dual redundant pressure instrumentation is included.



TECHNICAL DATA

- 24 VDC supply
- 18 - 32 VDC range
- 1 - 6 A current range
- -20 to +85 °C

EVOLUTION III

Larger fuel throttle valve assembly with redundant pressure instrumentation and higher actuator torque for larger valve sizes.



TECHNICAL DATA

- DLE flow control
- No flow sensor required
- Self-cleaning valve
- ATEX certified

EVOLUTION Lite

EVO Lite is a pure positioner using the same hardware but without the flow control algorithm.



TECHNICAL DATA

- 24 VDC (18 - 32 VDC)
- 20 ... 85 °C
- 250 W

EVOLUTION II-HT L

The EVOLUTION II-HT L Liquid Fuel Throttle Valve is a mechatronic valve assembly for liquid fuels.



TECHNICAL DATA

- 24 VDC (18 - 32 VDC)
- 20 ... 85 °C
- 250 W

VALVE SELECTION

The final valve choice depends on fuel duty, hazardous area, control philosophy, interface and turbine-specific operating data.

► Sizing support

► Project specific

► Data sheet confirmation

VALVE SELECTION CONSIDERATIONS

Fuel control valve selection should always be confirmed against the turbine model, fuel type, certification requirement, hazardous area classification, fail position, pressure class, flow range and customer interface. For quotations, use current data sheets and project-specific valve sizing.



TYPICAL DISCUSSION POINTS

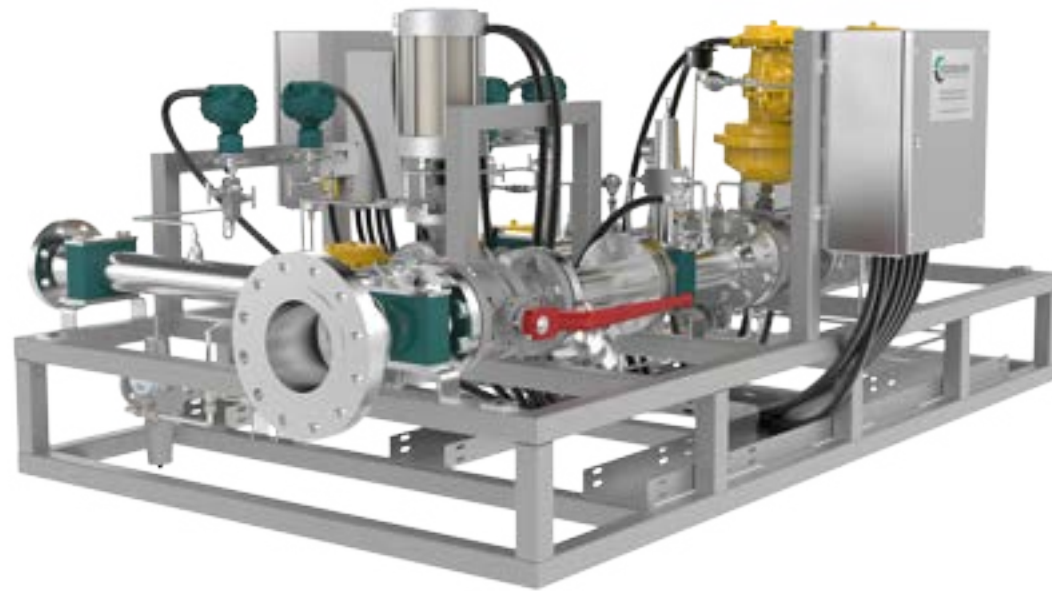
- Gas or liquid fuel duty
- DLE or standard combustor
- ATEX, CSA or site requirements
- Fail-open / fail-closed philosophy
- Pressure, flow and temperature range
- Control signal and feedback

COMMON SALES DRIVERS

- Obsolescence replacement
- Improved fuel accuracy
- Reduced retrofit risk
- Shorter lead-time vs OEM route
- Integration with existing control system

FUEL SYSTEMS

Fuel metering and conditioning systems can be designed around gas turbine and reciprocating engine requirements. Scope can include panels, valves, sensors, pipework, purge arrangements and documentation.



- ▶ Custom skid design
- ▶ Gas, liquid and alternative fuels
- ▶ Retrofit layout support

FUEL CONTROL & CONDITIONING SKIDS

Fuel skids are developed to suit the prime mover, fuel, site standards and customer interfaces. Systems can be designed for gas fuel, liquid fuel or combined duty, including single-stream and multi-stream low-NOx applications.

MAIN FEATURES

- ▶ Designed into available space envelope
- ▶ Replacement of original fuel controls
- ▶ Alternative fuel and decarbonisation support
- ▶ Instrumentation and panel options
- ▶ Project documentation and test support

IGNITION & COMPRESSOR WASH

High-energy ignition and compressor wash systems support turbine reliability, start performance and compressor efficiency. Systems can be configured for safe area or hazardous area applications.

- ▶ 24 VDC ignition
- ▶ Static or portable wash
- ▶ Hot water high pressure cleaning

PROMETHEUS Ignition

High energy ignition power system for standard surface-effect spark plugs used on gas turbines.



TECHNICAL DATA

- Nominal 24 VDC
- 2000 V / 16 J output
- 1 to 4 outputs
- Zone 1 flameproof option

Compressor Wash

Static or wheeled compressor wash units for high-pressure hot water cleaning of turbine compressor blades.



TECHNICAL DATA

- Maximum pressure 150 bar
- 3-phase 50/60 Hz pump
- 6 kW heating element
- Stainless or mild steel cabinet

TYPICAL PACKAGE

- ▶ Tank, pump and heater
- ▶ Controls and instrumentation
- ▶ Spray nozzle connection
- ▶ Documentation and support



GOVERNORS

Digital and hydraulic governor products for diesel, gas and dual-fuel engines and turbines.

Products can be supplied as components or as part of complete engine management systems.

DIGITAL GOVERNORS

For reciprocating engines and steam turbines

REGULATEURS EUROPA offers one of the most extensive ranges of digital controls for all types of combustion engines, turbines, generators and CHPs. Their reliability, durability and performance have helped them to gain an outstanding reputation on the market.

- Flexible control
- Proven hydraulic range
- Diesel, gas and dual-fuel

Viking35

An ECU with a high number of I/Os, suitable for a wide range of complex control and monitoring tasks in ships, locomotives and generators. The Viking35 has established itself as the ideal solution on the market for applications involving complex load sharing in particular. The user-friendly Viking Vision software or a corresponding hand-held device can be used to edit or display control and status parameters in real time. It is combined with hydraulic actuators from REGULATEURS EUROPA.



TECHNICAL DATA

- Power supply: 24 VDC
- Degree of protection: IP00

XIOS UC

Multi-functional and modular engine governor with advanced I/O system. Follow-up product for PRIAMOS DC 1-03/DC 1-04.



TECHNICAL DATA

- Processor: 32 Bit 264 MHz
- Communication interfaces: Ethernet, CAN, RS-232, RS-485
- Display: 7" or 10.1" (optional)
- Degree of protection: IP20
- Power supply: 9 ... 32 VDC

DC 02

The HELENOS DC 2-02 is HEINZMANN's digital control system designed for medium-speed engines and turbines. It serves as the core control component for application-specific systems in marine, locomotive, and turbine applications. It supports external communication via various CAN protocols and Modbus.



TECHNICAL DATA

- Power supply: 24 VDC
- Degree of protection: IP55 oder IP00

DC 06

The PANDAROS DC 6 is HEINZMANN's small but powerful digital control for high-speed engines. It drives HEINZMANN actuators rated up to 40 Nm torque. External communication via variable CAN protocols is available.



TECHNICAL DATA

- Power supply: 24 VDC, 12 VDC
- Degree of protection: IP55 oder IP00

DC 6.200

The DC 6.200 is HEINZMANN's low current version of digital PANDAROS controls. With assisting actuator systems of hydraulic type for instance torques up to 20 Nm are possible. DC 6.200 hardware is well adapted for small actuator currents and therefore it comprises an appropriate software version.

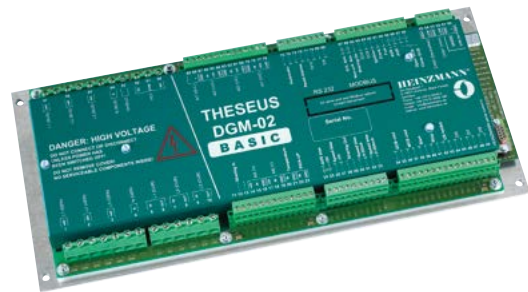


TECHNICAL DATA

- Power supply: 12 VDC, 24 VDC
- Degree of protection: IP00

THESEUS DGM 02

This digital generator governor for generators operated as islands or in parallel can run with or without a HEINZMANN speed governor. Four versions are available: BASIC, MEDIUM, EXTENDED and GROUP.



TECHNICAL DATA

- Voltage input: 3-phase input: 240 - 480 VAC or 100 - 240 VAC
- Current inputs: 3-phase input: 0 - 5 A or 0 - 1 A
- Frequency: 45 - 65 Hz
- Power supply: 24 VDC (9 - 33 VDC)

HYDRAULIC GOVERNORS

High reliable, stable and optimal engine control

Mechanical hydraulic governors are used where robust mechanical speed control and high reliability are required. Application options support marine propulsion, generator sets and turbine-driven duties.

- ▶ High work output options
- ▶ Application-specific features
- ▶ Robust & durable

RE 1102-4G

Popular hydraulic governor, providing mechanical speed control of diesel or steam turbine driven gensets. Option for electrically operated stop and/or start fuel limiter.



TECHNICAL DATA

- Output range Nm: 11, 16, 20, 34, 46, 54
- Output range ft lbf: 8, 12, 15, 25, 34, 40

RE 1115-4G

Hydraulic governor with electronic speed setting for marine propulsion engines. Analogue (4-20 mA) and digital speed setting modes (raise/lower speed) available. Electrically operated stop, electric start fuel limiter or boost pressure fuel limiter. 4-20 mA load signal available.



TECHNICAL DATA

- Output range Nm: 11, 16, 20, 34, 46, 54
- Output range ft lbf: 8, 12, 15, 25, 34, 40

RE 1500-3G

Largest of the RE hydraulic governors, providing mechanical speed control and featuring a two-stage, high stiffness, backlash-free hydraulic servo mechanism for best possible control on engines whose fuel control systems require a high work output. Option for start/boost pressure fuel limiter.



TECHNICAL DATA

- Output range Nm: 163, 271, 339
- Output range ft lbf: 120, 200, 250

RE 1800-3G

Powerful mechanical hydraulic governor, providing mechanical speed control and featuring a two-stage, high stiffness, backlash-free hydraulic servo mechanism for best possible control on engines whose fuel control systems require a high work output. Option for start/boost pressure fuel limiter.



TECHNICAL DATA

- Output range Nm: 81 - 108
- Output range ft lbf: 60 - 80

ACTUATORS

The range of hydraulic actuators offered by REGULATEURS EUROPA is built on nearly seventy years of expertise in hydraulic governing.

HYDRAULIC ACTUATORS

Acknowledged for high reliability

All customers in the industrial, marine and railtraction sector acknowledge these actuators for high reliability and durability along with excellent performance. All models are designed to be controlled by HEINZMANN digital controllers like XIOS UC. Alternatively, they can interface with other controllers as part of a customised engine management system by REGULATEURS EUROPA.

► Endurance

► Reliable

► Proven in countless installations

RE 2221-1G

The 2221 is a proportional actuator where the position of the output shaft is proportional to the electrical input signal 0 - 1 A. This actuator is typically used in medium/high-speed diesel engines in generator systems or locomotives.



TECHNICAL DATA

- Output range Nm: 11, 16, 20, 34, 46, 54
- Output range ft lbf: 8, 12, 15, 25, 34

RE 2231-1GH

Proportional actuator featuring a mechanical hydraulic governor as a ballhead backup in the case of a power failure or controller fault, providing various manual speed setting options. Popular actuator model for marine propulsion engines and other applications where common mode failures must be minimised.

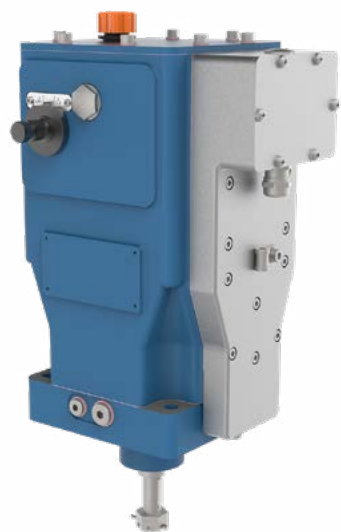


TECHNICAL DATA

- Output range Nm: 11, 16, 20, 34, 46, 54
- Output range ft lbf: 8, 12, 15, 25, 34, 40

RE 2800-1G

This model is a compact hydraulic proportional actuator used in combination with the Viking35 and XIOS range from RE or governors from other manufacturers. It is completely interchangeable with actuators from the UG range.



TECHNICAL DATA

- Output range Nm: 42
- Output range ft lbf: 30

DA 2800

Compact hydraulic proportional actuator based on the 2800 series actuators with an integrated amplifier. The amplifier boosts the output signal from 0 - 200 mA to 0 - 1 Amp or from 4 - 20 mA to 0 - 1 Amp. This allows to use the DA 2800 actuator with different non-RE controllers of other manufacturers.



TECHNICAL DATA

- No external amplifier needed
- No extra space in the control cabinet for an additional PCB needed
- No additional wiring needed
- Only one cable to the actuator
- Wire break detection from PCB to Actuator
- Amplifier with marine type approval



SYSTEM COMPONENTS

For various control systems.

Auxiliary systems and components complete control and monitoring packages with distributed I/O, signal conversion, test equipment and commissioning tools.

- Distributed I/O
- Signal conversion
- Test and calibration

ICENI I/O Modules

Distributed I/O nodes for communicating with PC or PLC equipment or extending the range of the Viking35 ECU.

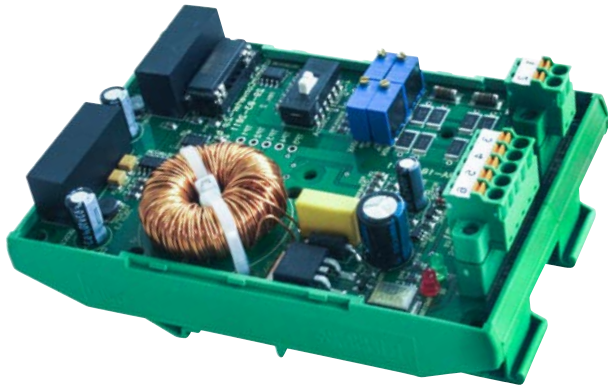


TECHNICAL DATA

- Modbus RTU / CANopen / DeviceNet
- -20 to +70 °C
- Plug & Play configuration

Converter Modules

Signal converter and amplifier modules to interface RE actuators with electronic control units.



TECHNICAL DATA

- ECM 7118
- Converter 7150
- DIN rail mounting

Stepper Motor Driver

Speed setting driver for hydraulic governors fitted with adjustable stepper motor speed setting.



TECHNICAL DATA

- 4 - 20 mA speed setting
- Digital raise/lower speed
- Type approval

TEST EQUIPMENT

REGULATEURS EUROPA provides electrically driven governor test stands for permanent installation. The purpose of the rig is to assist in adjusting, servicing and testing the performance of hydraulic speed governors and hydraulic actuators. Our test stands have been designed to simulate diesel engine operating conditions; the governor and test stand forming a closed loop system. For the setting-up and testing of hydraulic actuators the test stand can also operate in open loop mode. In that instance the drive speed is set at, and controlled from, the stand itself.

Test Stand AK9

Our test stands have been designed to simulate diesel engine operating conditions; the governor and test stand forming a closed loop system. For the setting-up and testing of hydraulic actuators the test stand can also operate in open loop mode. In that instance the drive speed is set at, and controlled from, the stand itself. For testing of governors and actuators of all major brands.



FEATURES

- All-electric 5.5 kW drive
- Includes oil supply to fill the governor under test
- Governor oil may be circulated and pre-heated
- Operated from a 15" colour touch screen HMI
- Includes 4 ... 20 mA speed setting driver
- Operates in open and closed loop mode
- Built-in features of the RE actuator charger / tester.

Actuator Charger / Tester

For calibration of all RE actuators. The magnets in all RE actuators are accurately calibrated at the factory, guaranteeing the actuator performs in the precise manner the design intended. At overhaul of the actuator and/or strip down of the actuator assembly it is essential to re-calibrate the magnet to maintain the accurate operation of the unit. The RE actuator charger/tester is designed specifically to do this task and is available in either 110 VAC or 230 VAC 50/60 Hz power supply format.



FEATURES

- Designed specifically to work accurately with Regulateurs Europa actuators
- 110 VAC, 230 VAC 50/60 Hz

Actuator Calibration Unit

The actuator calibration unit ACU is a tool for maintenance and repair of HEINZMANN actuators. It is designed to perform a general working test of actuators and to calibrate actuators analogue feedback.



FEATURES

- Analogue feedback calibration
- General working test
- Cable harness included

ALTERNATIVE FUELS

Alternative-fuel products support decarbonising internal combustion engines through methanol fuel preparation, methanol injection and gas admission valve technology.

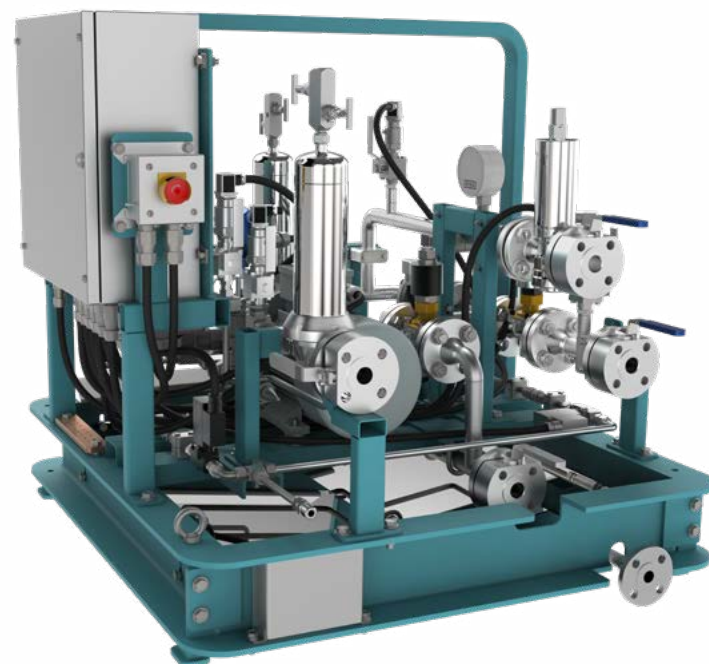
- ▶ Methanol fuel systems
- ▶ PFI methanol injection
- ▶ Hydrogen and ammonia capable gas valves

Methanol Fuel Supply Skid

The methanol fuel supply skid graphic has been added to the catalogue in the alternative-fuels section. The skid is positioned as an engineered fuel preparation and supply package, built around customer technical requirements and site standards.

SKID OPTIONS

- ▶ Fixed or variable speed motor arrangements
- ▶ Separate control panel for monitoring and demand control
- ▶ Nitrogen purge / auto-purge options
- ▶ Drip tray and classification support
- ▶ Temperature control



METHANOL INJECTION AND GAS ADMISSION

Products in this family support dual-fuel conversion, gaseous fuel metering and alternative fuel strategies for new-build and retrofit engines.

- ▶ Dual-fuel conversion
- ▶ Cylinder-specific metering
- ▶ Future-fuel capability

Methanol Injector DS 200

PFI methanol injector designed to inject fuel into the intake tract directly upstream of the intake valve. It supports dual-fuel conversion and adjustable spray geometry.



TECHNICAL DATA

- 5 - 25 bar fuel pressure
- 100 - 500 kW per cylinder
- Double-walled option

Megasol Gas Admission Valves

Electrically actuated gas admission valves for gas and dual-fuel operation on industrial turbocharged four-stroke engines. One valve per cylinder provides cylinder-specific gas quantity control.



TECHNICAL DATA

- Precise cylinder metering
- Fast response
- Hydrogen or ammonia capability
- New engines or retrofit

ALTERNATIVE FUEL SALES POINTS

- ▶ Retrofit path for existing engines
- ▶ Supports lower-carbon fuel strategy
- ▶ Application-specific package design
- ▶ Integration with control and monitoring systems

INDUSTRIAL CONTROL

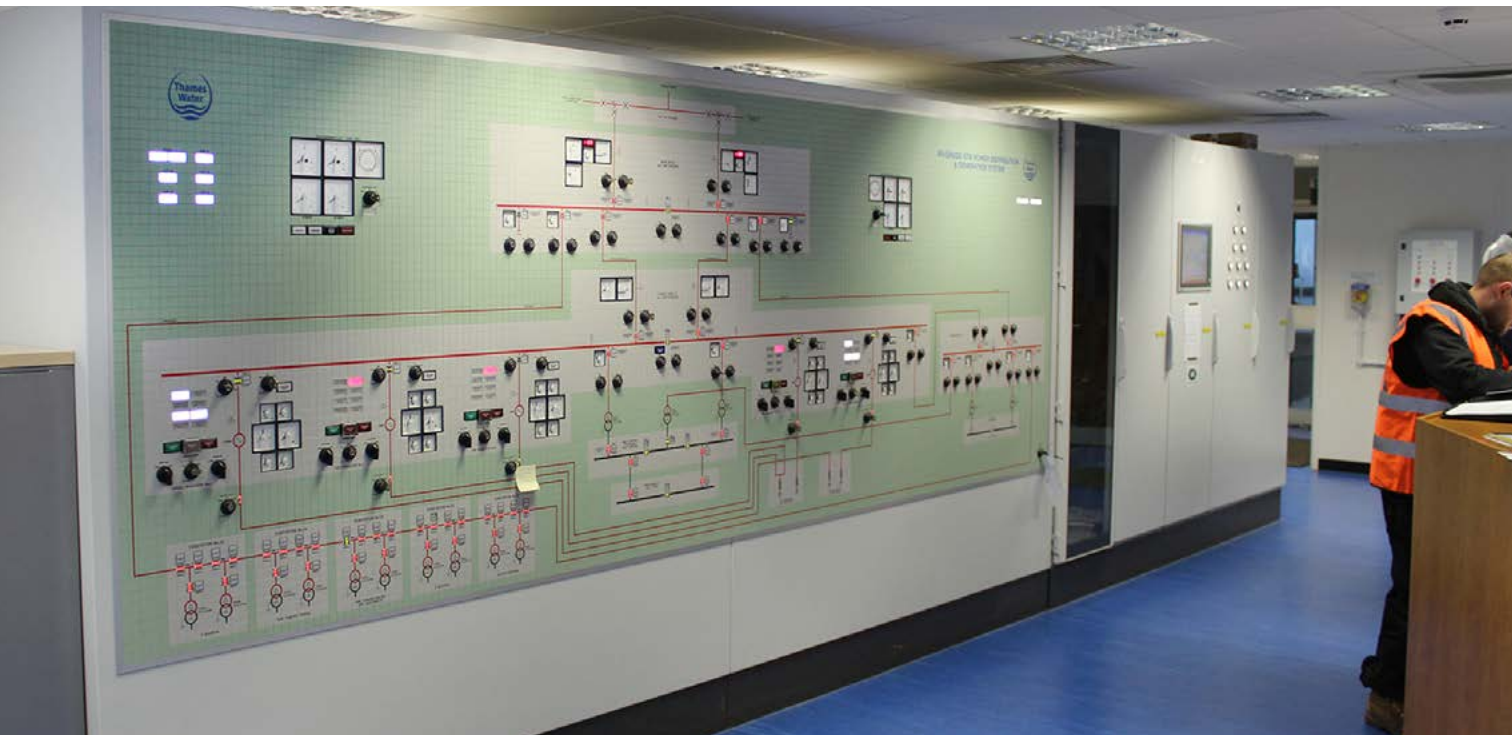
Prime mover control technology for medium and low voltage generator and electrical distribution systems. Systems can include PLC, HMI, SCADA and generator management functions.

- ▶ Power management
- ▶ Generator management
- ▶ PLC / HMI / SCADA

POWER MANAGEMENT

Power Management Systems are designed around the number of generators, engine ratings, fuel type and switchboard arrangement. The system can automate generator operation, synchronising, load control, protection supervision and remote monitoring.

HEINZMANN RE power management systems are based around the latest PLC and SCADA technology to provide customised solutions that are reliable and retain the flexibility for future expansion plus meet the customer's requirements for every aspect of the application.



- ▶ Load-dependent call-up and shutdown
- ▶ Generator synchronising control
- ▶ Active and reactive load sharing
- ▶ Island mode voltage and frequency control
- ▶ Load shedding and restoration
- ▶ Alarm annunciation and data logging

GENERATOR MANAGEMENT

HEINZMANN and HEINZMANN Regulateurs Europa have nearly seventy years' experience of providing control solutions ranging from single diesel engine governors through to complete control systems for multi-generator installations. HEINZMANN Regulateurs Europa specialises in design, engineering, manufacturing, installation and commissioning services to meet the customer specific requirements including consultancy and surveying services to assist in achieving a working solution.

HEINZMANN RE systems are designed using the latest PLC technology incorporating fieldbus and serial communications networks and where appropriate, incorporating the latest RE or HEINZMANN products. The functionality of single engine governors through to complete control systems is tailored to meet the customer's and end user's requirements including:



- Local engine control panels
- Remote engine control panels
- Control desks
- Remote start/stop
- Engine speed governing
- Alternator excitation
- Manual/auto synchronising

MARINE & TRACTION SYSTEMS

Control and monitoring systems for commercial, naval and rail traction applications. Products support propulsion control, generator control, monitoring and traction governing upgrades.

MARINE SYSTEMS

For almost seventy years the sophisticated propulsion control and ship monitoring systems of HEINZMANN Regulateurs Europa have been supplied to merchant, commercial and military marine applications around the world.

Building upon a wealth of expertise, HEINZMANN Regulateurs Europa work hand in hand with customers from initial consultation to project planning and execution, resulting in perfectly. With its longstanding experience in governing and controlling prime movers and its excellent design and production capabilities.

- Propulsion control
- Ship monitoring
- Marine Engine Control

Propulsion Control

Integrated governing and propulsion control for FPP, CPP and water jet applications with Viking35.



- Speed governing
- Clutch control
- Slowdown and shutdown logic

Monitoring

Machinery monitoring and surveillance from simple displays to touch-screen systems and ship-wide monitoring.



- Bridge and ECR displays
- Engine and gearbox monitoring
- Separated safety and monitoring

Marine Engine Control

HEINZMANN Regulateurs Europa governors are employed in the propulsion engines of most marine engine manufacturers worldwide. These controllers handle outputs of up to several thousands of kilowatts and cover all speed ranges.



- Hydraulic Governors
- Digital Governors
- Hydraulic Actuators
- Electrical Actuators

TRACTION SYSTEMS

Robust control systems for diesel-electric and diesel-hydraulic locomotives. Retrofit projects can replace obsolete governor and control equipment, improve reliability and provide improved monitoring.

- ▶ Traction control
- ▶ Governing Systems
- ▶ Locomotive control retrofits



- ▶ Viking traction control
- ▶ Cab controls and remote monitoring
- ▶ Fault de-rating support
- ▶ Retrofit and new-build applications

Traction Control

HEINZMANN Regulateurs Europa offers integrated control of the locomotive and all engine management functionalities. This includes sophisticated remote monitoring systems and cab controls.



- Precise speed control
- Stable and reliable operation
- Compact and robustly designed hardware components that are adapted to the harsh environmental conditions in locomotives
- HEINZMANN Regulateurs Europa traction controls are used worldwide in both passenger and freight trains
- Selected by leading locomotive manufacturers for retrofitting

Governing Systems

Control systems for diesel-electric and diesel-hydraulic locomotives of HEINZMANN Regulateurs Europa are characterised by precise speed governing and stable and reliable operation. Their compact and robustly designed hardware components are adapted to the harsh environmental conditions in locomotives. HEINZMANN Regulateurs Europa offers a wide range of governors to suit locomotive applications.



- Mechanical-hydraulic governors
- Microprocessor-based governing systems

Governor Replacement

HEINZMANN Regulateurs Europa is successfully replacing mechanical-hydraulic governors from any manufacturer with digital Viking Governing Systems. Mechanical-hydraulic governors by their nature suffer from heating effects and internal wear. The reduction in maintenance has been proven to finance the procurement of the new equipment.



- Electronic controls ensure more repeatable speed and load control settings.
- Viking Traction governors can be tailored to interface with any locomotive speed setting and load control arrangement.

RETROFIT SOLUTIONS

EXTENDING LIFETIME. ENHANCING PERFORMANCE.

Modernizing existing control systems is often the most cost-effective way to improve reliability, availability, efficiency and compliance. HEINZMANN Regulateurs Europa provides tailored retrofit solutions for marine, power generation, industrial and traction applications.

Why retrofit?

- **Obsolescence Management:**
Replace unsupported controllers, governors, actuators and interface modules.
- **Increased Reliability:**
Reduce unplanned downtime and improve system availability.
- **Improved Performance:**
Enhance engine response, load acceptance and speed stability.
- **Compliance & Safety:**
Meet current operational, environmental and classification requirements.
- **Long-Term Serviceability:**
Ensure spare parts availability and future support.



CUSTOMER BENEFITS

- ▶ Extended equipment lifetime
- ▶ Reduced maintenance costs
- ▶ Improved operational reliability
- ▶ Increased fuel efficiency
- ▶ Enhanced system functionality
- ▶ Future-proof control architecture
- ▶ Worldwide service support

Our Retrofit Process

- **Site Survey & Assessment:**
Evaluation of the existing installation and operational requirements.
- **Engineering & Design:**
Development of a customised retrofit solution.
- **Manufacturing & Testing:**
Factory assembly and testing prior to installation.
- **Installation & Commissioning:**
Professional implementation by experienced field engineers.
- **Training & Documentation:**
Comprehensive documentation and operator training.
- **Lifecycle Support:**
Worldwide service, spare parts supply and technical assistance.



Retrofit Scope

Hardware Replacement:

- ▶ Governors
- ▶ Actuators
- ▶ Digital Controllers
- ▶ PLCs
- ▶ HMIs
- ▶ Control Cabinets

System Integration:

- ▶ Existing engine systems
- ▶ Power management systems
- ▶ Vessel automation systems
- ▶ SCADA and plant control systems
- ▶ Communication interfacing

Typical Retrofit Applications

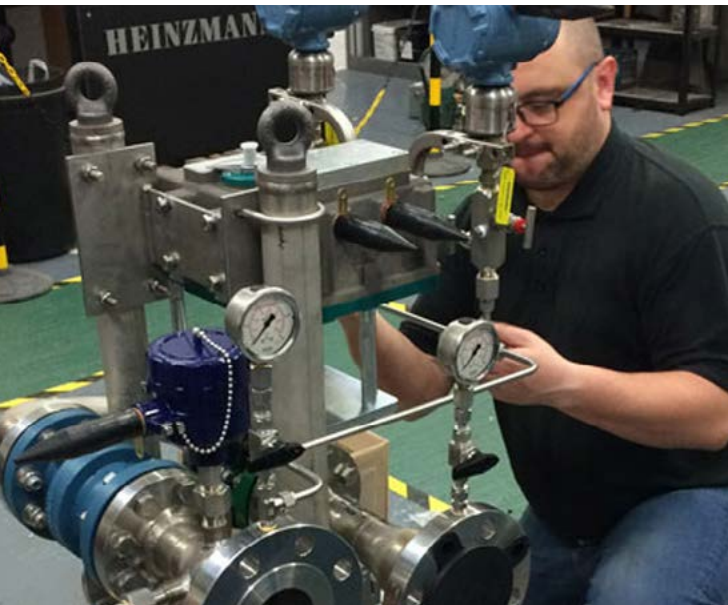
- **Governor Retrofits:**
Upgrade from mechanical or legacy electronic governors to modern digital control systems.
- **Actuator Modernisation:**
Replacement of obsolete hydraulic actuators with state-of-the-art electro-hydraulic solutions.
- **Generator Control Upgrades:**
Modern generator control, load sharing, synchronisation and power management solutions.
- **Propulsion Control Retrofits:**
Modernisation of main engine control and propulsion systems for enhanced vessel operation.
- **Turbine Control Retrofits:**
Replacement of aging control hardware with advanced turbine control platforms.

SERVICES & SUPPORT

HEINZMANN Regulateurs Europa has a team of field service engineers to install, commission, repair or maintain HEINZMANN Regulateurs Europa products.

SPARES, OVERHAUL & SERVICE EXCHANGE

All the engineers are trained in HEINZMANN Regulateurs Europa products and their applications. We have the experience and unique engine simulator test bench to ensure that your governor, new or overhauled, is returned to you working to factory specification just as on the day it was originally built.



OUR STRENGTHS

- ▶ Factory repair
- ▶ Overhaul
- ▶ Service exchange support for governors, actuators and control products.

+44 1206 799 556

Installation & Commissioning

Quality of installation and commissioning is key to a successful implementation or upgrade, and trusting this to an experienced team who understand the product and your application is crucial.

- Field service for new installations
- Retrofits
- Upgrades
- System troubleshooting

Fuel System Upgrades

Our experienced design engineers can offer a full replacement and upgrade solution to suite your specific application and space requirements.

- Alternative fuels
- Value
- High accuracy

Service for HEINZMANN Products

Factory trained technicians, and the necessary spare parts stock will ensure that your products are returned to full OEM specification.

- HEINZMANN actuators
- Throttle valves



APPLICATION ENGINEERING

HEINZMANN Regulateurs Europa can provide a complete application engineering solution from initial concept through to final commissioning for project-specific control and monitoring systems.

Our experienced team of project engineers will work with the customer to provide a workable control system.

WE ARE SPECIALISTS IN

- ▶ High level of technical backup
- ▶ Integration
- ▶ Testing
- ▶ Commissioning & support

in industries such as power generation, building management and process plant.





HEINZMANN GROUP - THINKING IN DRIVE AND CONTROL

HEINZMANN is a globally active family business founded in 1897 with its headquarters in Schönau (Germany), in the Black Forest.

Today, in the field of engine management HEINZMANN is one of the leading suppliers of components and systems for industrial combustion engines, generators and turbines. As a specialist and development partner, HEINZMANN is committed to developing exactly the right solution for increasing efficiency and reducing emissions.

In the Electric Drives division, HEINZMANN also demonstrates innovative strength and development expertise in engine technologies of the future. The company has established itself as a reliable partner and system provider for electric drive systems.

Our collaborative interaction with more than 40 globally active subsidiaries and sales companies characterises the spirit within the HEINZMANN group of companies and makes us a reliable partner.

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