

PRODUCT GUIDE

Electronic edition – drive power





Take control of your gen-set or engine using the free remote monitoring feature

“Smart and easy”

made possible by ComAp unique technology.



WebSupervisor Table view

Unit name	Actual power	Nominal power	Unit State	Alarm	Links
Affreton	0 kW	250 kW	Ready	OK	
Affreton 2	0 kW	190 kW	Ready	OK	
Baraton	144 kW	150 kW	Warning	Warning	
Checkley	0 kW	150 kW	Ready	OK	
ComAp 1	0 kW	300 kW	Ready	OK	
ComAp UK	156 kW	300 kW	Warning	Warning	
Garsthal	120 kW	180 kW	Warning	Warning	
Hayden	n/a	n/a	NoCommunication	n/a	
Heckley	119 kW	120 kW	Warning	Warning	
IC-RT-3M-BLITE	0 kW	1000 kW	Unloaded	OK	
IL-RT-AG-GPRS	Run hours: 11 h	Fuel level: 88%	Shutdown	Warning	
IL-RT-AG-BLITE	Run hours: 272.9 h	Fuel level: 88%	Shutdown	Warning	
Kidderminster	291 kW	290 kW	Warning	Warning	
Leicester	0 kW	1064 kW	Shutdown	Warning	
Manfield	242 kW	300 kW	Loaded	OK	
Mellon	0 kW	290 kW	NoCommunication	Warning	
Markmoor	187 kW	200 kW	Warning	Warning	
Rugby	n/a	n/a	NoCommunication	Warning	

WebSupervisor - Windows Internet Explorer

Unit detail

ComAp 1 On line

Engine state: Loaded Breaker state: Para/Op Control Mode: AUT

Alarm:

Act power: 78 kW ActPwrReq: 70 kW Base load: 70 kW NomIn power: 100 kW

Control: OFF, MAN, SIM, AUT, TEST, START, STOP

Alarm List: Gen freq: 50.1 Hz Pwr factor: 0.69 Load char: C Ubat: 17.9 V

kWhours: 1512908 kW Run hours: 23245 h

WebSupervisor Map view

Monitored Units:

- Affreton 0 kW
- Affreton 2 150 kW
- Baraton 140 kW
- Checkley 0 kW
- ComAp 1 0 kW
- ComAp UK 156 kW
- Garsthal 120 kW
- Hayden n/a
- Heckley 119 kW
- IC-RT-3M-BLITE 0 kW
- IL-RT-AG-GPRS 11 h
- IL-RT-AG-BLITE 272.9 h
- Kidderminster 290 kW
- Leicester 0 kW
- Manfield 240 kW
- Mellon n/a
- Markmoor 187 kW
- Rugby n/a



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WebSupervisor
ComAp WSV

Available on the App Store

ANDROID APP ON Google play

R E M O T E C O M M S M A D E E A S Y

Control is everything

ComAp is an innovative, creative company bringing power control solutions to industrial applications. Our range of power control products and accessories provide our customers with class-leading technology, ease of use, and environmental benefits.

Our products are in use all over the world, in many different situations: from tyre recycling plants in Turkey, to tomato growers in Australia; from oil rigs in Russia, to a soda factory in Ghana; ComAp products are a reliable and cost effective solution for the world's power control needs.



Spain
Ferry



United Kingdom
Data Center



Ghana
Power Plant



Nigeria
Pasta Factory



USA
Manufacturing Facility



Mexico
Warehouses



Colombia
Oil Field



Ecuador
Cruise Ship



Peru
Ore Mine



Brazil
Paper Factory



Bolivia
Power Plant



Chile
Casino



Argentina
Ski Centre



Egypt
Cement Production Plant





France
Ship Elevator



Switzerland
Airport



Poland
Hotel



Kosovo
Telecom Towers



Russia
Oil Field



Denmark
Bank



Finland
Cable Laying Vessel



Italy
Hospital



Romania
Oil Rig



United Arab Emirates
Rental Company



Mongolia
Diesel Power Station



China
Nuclear Power Plant



Singapore
F1 Singapore Grand Prix



Saudi Arabia
Water Treatment Plant



India
Plant Nursery



Indonesia
Coal Mine



Australia
Gas Field



New Zealand
Vineyards and Orchards





WELCOME TO OUR PRODUCT GUIDE

The ComAp Product Guide is more than just an overview of ComAp products – it's an illustration of the continued commitment of the many dedicated people at ComAp who continually develop new ways to support an ever-growing range of solutions for an ever-increasing global customer base.

As a result the guide is bigger and better than ever. It promises a flexible approach to engine and generator management through solutions deeply embedded with the latest web based communication technology to bring unrivalled efficiency, convenience and cost saving to standard operations. We've also extended our range and capability further with updated software, touch screen technology, bi-fuel packages and a family of compact and cost-effective control units.

Beyond innovative products, ComAp customers can be sure of outstanding service. Our global distribution network is dedicated to delivering an excellent experience with fully trained and knowledgeable partners providing responsive technical support where and when it's needed anywhere in the world.

We hope you find the guide useful and continue to be an important part of our future. Hearing what you think is very important to us, so if you would like to share your experience of using our products please let us know by emailing your story to info@comap.cz.

Regards
Libor Mertl – Managing Director

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Drive Power



InteliDrive Nano

ENGINE CONTROLLER FOR PUMPS AND COMPRESSORS

The InteliDrive Nano is cost effective engine controller, which features outstanding control, monitoring and protection for electronic and conventional diesel/gas engines. The controller is suitable for pumps, compressors and many other engine based applications.

All settings can be configured using the controller buttons or DriveEdit PC software. The controller uses a symbol-based graphic display enabling users to quickly and easily interpret information. Its history-log aids troubleshooting and helps protect the equipment warranty.

The InteliDrive Nano can communicate via standard and proprietary CAN J1939 protocols, to a wide range of constant-speed and variable-speed engines, including Caterpillar, Cummins, Detroit Diesel, Deutz, GM, Isuzu, Iveco, John Deere, MAN, MTU, Perkins, Scania, Sisu, Volvo Penta and many others.



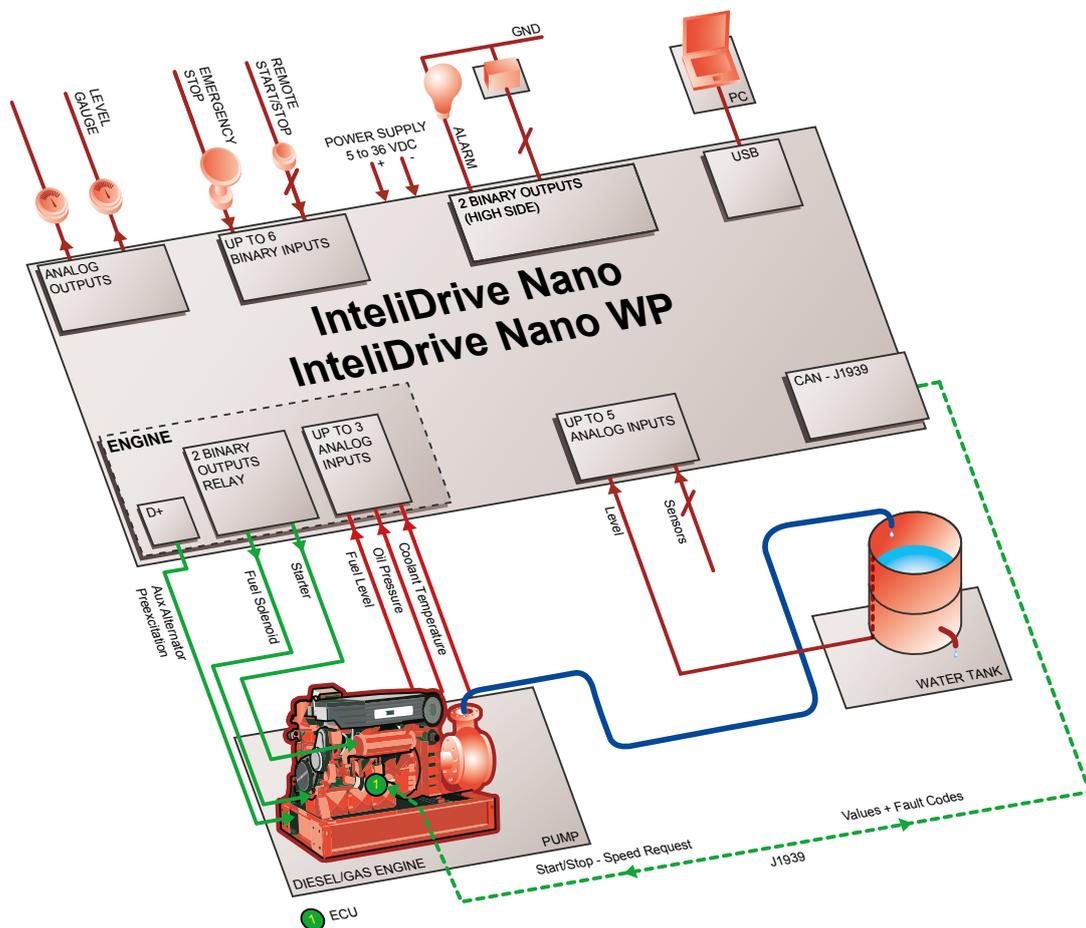
Benefits

- Integrated solution – less wiring and no external components
- Automatic or manual engine speed control
- Automatic start/stop; remote start; PID control loop and comparator
- Easy to use, symbol based display
- History event log (10 events)
- Customer configuration can be pre-loaded at the factory
- Perfect price/performance ratio
- “Zero” power consumption, i.e. extended battery life

Features

- Engine control, monitoring and protection
- Electronic engines support – J1939 interface
- 1 RPM input
- 4 binary inputs (high side)
- 4 binary outputs
 - 2 configurable binary outputs (high side switch 0,5 A)
 - 2 binary relay outputs – 10 A
- Up to 8 analog inputs
 - 3 configurable analog inputs (VDO)
 - 3 configurable analog inputs (0–20 mA)
 - 1 configurable analog input (0–2400 Ohm)
 - 1 configurable analog input (0–10 V)
- 2 analog outputs (0–5 V)
- Selectable protection alarm/shutdown
- Setpoints adjustable via controller buttons
- 10 events, warnings or shutdown alarms with running hours stamp
- Engine speed control adjustable via controller buttons
- Push buttons for simple control, lamp test
- Graphic back-lit LCD display 128 × 64 pixels
- 3 LED indicators
- Power supply 8–36 VDC
- Operating temperature: -30°C to +80°C
- InteliDrive Nano controller meets several standards (CE, EN)
- Front panel sealed to IP65
- Dimensions (cut-out): 91 mm × 91 mm

InteliDrive Nano



InteliDrive Nano WP

WATERPROOF ENGINE CONTROLLER FOR PUMPS AND COMPRESSORS

In addition to the standard IntelliDrive Nano features, the IntelliDrive Nano WP model also features a rear panel sealed to IP65 and a 18 pin Deutsch connector.



InteliDrive Nano WP rear side view



TYPICAL APPLICATION:

Pump system

see page 110



ID-Nano Harness-2
optional accessory for
InteliDrive Nano WP

InteliDrive Lite

ENGINE CONTROLLER FOR PUMPS AND COMPRESSORS

The InteliDrive Lite is a cost effective and sophisticated engine controller, which features outstanding control, monitoring and protection for both mechanical and electronic diesel/gas engines, all in one unit. The extended product family offers a range of engine-specific versions suitable for land-based and marine Tier 4 applications.

It can communicate via standard and proprietary CAN J1939 protocols, to a wide range of constant-speed and variable-speed engines, including Caterpillar, Cummins, Detroit Diesel, Deutz, GM, Isuzu, Iveco, John Deere, MAN, MTU, Perkins, Scania, Sisu, Volvo Penta and many others. The controller comes with LiteEdit PC software, enabling the user to easily configure the inputs and outputs to suit individual requirements.

Like all ComAp engine controllers, InteliDrive Lite features a powerful back-lit graphic display, providing vital information in an easy to understand format. A real-time clock, coupled with event and performance history logging, is essential when it comes to troubleshooting. Remote control and monitoring is possible via analog/GSM/GPRS modem or Internet. The ability for internal values from the InteliDrive Lite to be displayed on analog gauges gives users the flexibility to create highly-customized instrumentation with ease.

TYPICAL APPLICATION:

Irrigation pump system

see page 111

Emergency drive for a sky lift

see page 114

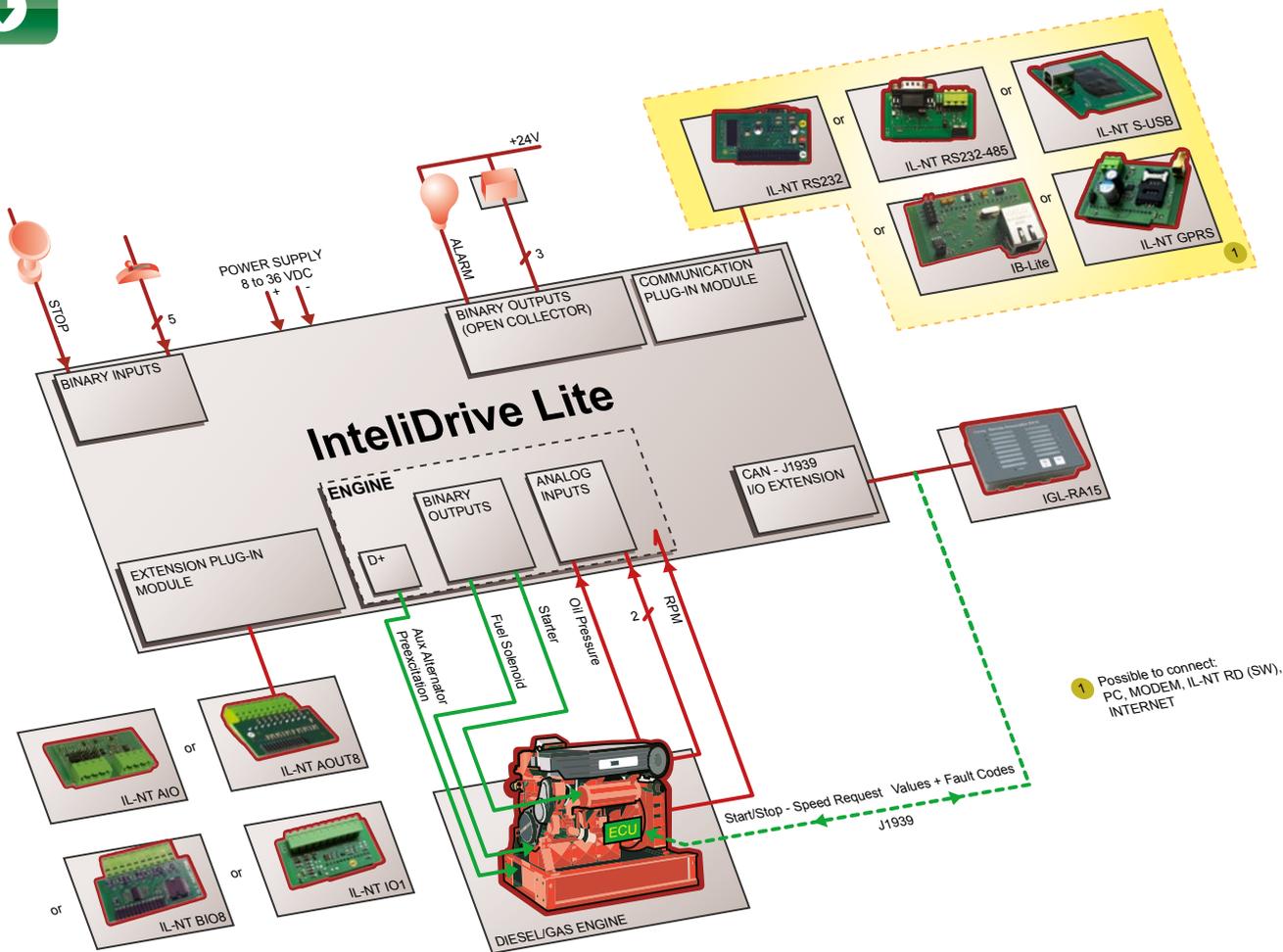


Benefits

- Integrated solution – less wiring and components
- Available Remote Display panel – economical solution for remote control
- Analog gauge (VDO, Datcon and others) outputs – operator friendly
- History log – easy troubleshooting
- Pressure regulation loop and Load limitation
- Smooth engine speed control
- Less engineering and programming
- Perfect price/performance ratio

Features

- Engine control, monitoring and protection
- Support of engines equipped with Electronic Control Unit (ECU) – J1939 or Cummins Modbus interface
- Tier 4 emission standard support
- 7 configurable binary inputs
- 7 configurable binary outputs
- 9 configurable analog inputs (3 resistive, 6 voltage)
- VDO type analog gauges outputs – 8 configurable channels
- Selectable protections warning/shutdown
- Setpoints adjustable via controller buttons or PC tools
- 3 level of password protection
- Ethernet, USB, RS485 or RS232/Modem/Modbus communication
- Real time clock and event history log
- Engine speed control by Up/Down controller buttons 3 binary inputs for predefined speed options, Speed Up/Down binary inputs or one analog input
- PLC functions: PID loop, Comparators, Timers
- Analog oil pressure, water temperature, fuel level, battery voltage, engine speed (pick-up)
- Automatic, manual or remote start/stop of the engine
- Push buttons for simple control, lamp test
- Graphic LCD backlit display 128 x 64 pixels
- 4 LED indicators
- Front panel sealed to IP65
- Power supply 8–36 VDC
- Operating temperature:
 - -20°C to +70°C regular unit
 - -40°C to +70°C low temperature unit
- InteliDrive Lite controller meets several standards (EN, UL, NFPA)



Communication modules and PC tools

- **IL-NT GPRS** see page 68
- **IB-Lite** see page 69
- **IL-NT RS232** see page 69
- **IL-NT RS232-485** see page 69
- **IL-NT S-USB** see page 69
- **WinScope** see page 72
- **LiteEdit** see page 72
- **WebSupervisor** see page 73
- **IntelliMonitor** see page 76

Extension modules and displays

- **IL-NT AIO** see page 68
- **IGL-RA15** see page 69
- **IL-NT AOUT8** see page 69
- **IL-NT BIO8** see page 69
- **IL-NT IO1** see page 69
- **IL-NT RD (SW)** see web pages

Relay board I-RB8

- 8 relays for IntelliDrive Lite binary outputs separation
- Each channel has both N.O. and N.C. contacts available
- LED state indication
- See web pages

New Zealand

Frost protection machines

The Marlborough district of New Zealand produces some of the country's most famous wines and the vineyards and orchards must be well protected against the frosts that can destroy multi-million dollar crops overnight. Control and monitoring of engines which drive fans for frost protection wind machines is done with ComAp IntelliDrive Lite controllers.

The complete system is designed and built by FMR Group Ltd of Blenheim who were assisted by GreenBird Technology, the local ComAp distributor.



InteliDrive Lite FPC

FIRE PUMP CONTROLLER

InteliDrive Lite FPC (Fire Pump Controller) is modular engine controller designed for diesel driven fire pump applications based on the NFPA 20 standard. The controller utilises the hardware of a standard ComAp industrial engine controller, with a proven track record for flexible and reliable control gas or diesel applications.

Manual operation allows the diesel engine to be started using local buttons on the fascia of the controller or by external buttons on the control panel. Automatic mode of operation provides starting by a remote digital input switch or system pressure switch.

The control system incorporates two battery starter systems; the controller monitors the voltage on both battery systems, automatically switching between battery sets on a cyclic basis or low battery voltage condition.



Benefits

- Integrated solution – less wiring and components, less programming
- Available remote display panel – economical solution for remote control
- Possibility of monitoring and control via Internet and cellular network
- Analog gauge (VDO, Datcon and others) outputs – operator friendly
- History log – easy troubleshooting
- Pressure regulation loop and load limitation
- Smooth engine speed control
- Perfect price/performance ratio

Features

- Engine control, monitoring and protection
- Support of engines equipped with Electronic Control Unit (ECU) – J1939 or Cummins Modbus interface
- 7 configurable binary inputs
- 7 configurable binary outputs
- 7 configurable analog inputs + 2 analog inputs of battery voltage measurement
- VDO type analog gauges outputs – 8 configurable channels
- Selectable protections alarm/shutdown
- Setpoints adjustable via controller buttons or PC
- 1 level of password protection
- USB, RS485 or RS232/Modem/Modbus communication
- Real time clock and event history log
- Engine speed control by 3 predefined binary inputs, speed up/down binary inputs or one analog input
- Analog oil pressure, water temperature, fuel level, battery voltage, engine speed (pick-up)
- Automatic or manual start/stop of the engine
- Automatic starting sequence based on two batteries according to NFPA 20 standard
- Push buttons for simple control, lamp test
- Graphic back-lit LCD display 128 x 64 pixels
- 6 LED indicators (Alarm, Warning, Not Ready, Running, Battery A, Battery B)
- Front panel sealed to IP65
- Power supply 8–36 VDC
- Operating temperature:
 - -20°C to +70°C regular unit
 - -40°C to +70°C low temperature unit
- InteliDrive Lite FPC controller meets several standards (EN, NFPA)

TYPICAL APPLICATION:

Firepumps

see page 112

InteliDrive Lite FPC



Communication modules and PC tools

- IL-NT GPRS see page 68
- IB-Lite see page 69
- IL-NT RS232 see page 69
- IL-NT RS232-485 see page 69
- IL-NT S-USB see page 69
- WinScope see page 72
- LiteEdit see page 72
- WebSupervisor see page 73
- IntelliMonitor see page 76

Extension modules and displays

- IL-NT AIO see page 68
- IGL-RA15 see page 69
- IL-NT AOUT8 see page 69
- IL-NT BIO8 see page 69
- IL-NT IO1 see page 69
- IL-NT RD (SW) see web pages

Relay board I-RB8

- 8 relays for IntelliDrive Lite FPC binary outputs separation
- Each channel has both N.O. and N.C. contacts available
- LED state indication
- See web pages

Mexico

Orymac Group warehouse

Although standard sprinkler systems are the conventional fire protection system in warehouses, increases in warehouse sizes, restrictions in water supply, and changes in firefighting strategy means that their efficiency is being examined.

As an advanced solution the Orymac Group have installed a Fire Pump System for the sprinklers in one of their warehouses in Mexico. The pump is fully automated by an IntelliDrive Lite FPC and Brizzati Control Panel, with a capacity for 250 gallons of water and powered by an electric motor (with a diesel pump, and manual jockey pump). This combined solution utilising ComAp technology uses water intelligently and automatically to ensure the warehouse is always protected in the event of fire.



ENGINE CONTROLLERS



IntelliDrive Lite EM

IntelliDrive Lite EM

ELECTRIC MOTOR CONTROLLER

The IntelliDrive Lite EM is an integrated control solution for Single or Three phase AC electric motors. It allows operation of the motor either manually, remotely or automatically. The IntelliDrive Lite EM controller has many motor protections as standard including both overload and overcurrent protection. Many different applications which are driven by an electric motor, can be controlled and protected by the IntelliDrive Lite EM.

Like all ComAp products, ease of use is an important design philosophy, so IntelliDrive Lite EM features a powerful graphic display providing user-friendly information in an easy to understand format. Instrumentation of internal values on analog gauges makes it simple to use, even for untrained personnel.



Benefits

- Internet or cellular network (GPRS) monitoring and control. Remote monitoring and control helps reduce any call-out costs of service engineers
- ComAp SCADA system (Line Diagram Editor) compatible
- Active SMS or E-mails in the event of an alarm
- Detailed History Log allows for easy troubleshooting and warranty claim handling
- ON/OFF regulation of process value, based on binary or analog signal
- Less engineering and programming is needed for a wide range of applications

InteliDrive DCU Industrial

MODULAR ENGINE CONTROLLER FOR INDUSTRIAL APPLICATIONS

The InteliDrive DCU Industrial is a highly flexible sophisticated engine controller, which features outstanding control, monitoring and protection for both mechanical and electronic diesel/gas engines as well as peripheral equipment. The extended product family offers a range of engine specific versions suitable for land-based applications.

InteliDrive DCU Industrial can communicate via standard and proprietary CAN J1939 communication protocols to a wide range of EFI engines, which include Caterpillar, Cummins, Detroit Diesel, Deutz, GM, Isuzu, Iveco, John Deere, MAN, MTU, Perkins, Scania, Sisu, Volvo Penta and others. Designed to be highly flexible, InteliDrive can be expanded by means of additional modules to offer over 100 binary inputs and outputs.

The set of PLC (analog and binary) functions is available in the standard software and can be used by the customer to control and regulate drive-train components.

Like all ComAp products, InteliDrive DCU Industrial features a powerful graphic display providing user-friendly information in an easy to understand format – not only for professionals but also for occasional users. The diagnostic information is available in easy to read plain text instead of potentially misleading cryptic codes or flashing lights.

Remote control and monitoring is possible via analog/GSM modem, SMS or Internet.



Benefits

- Integrated solution with hardwired safety functions – less wiring and components
- Full communication support of engines with ECU – simpler wiring, access to information from ECU via Modbus
- Event driven History record, easy backtracking and problem solving
- Load sharing for propulsion engines – better power utilization of installed engines
- Slave panels available – economical solution of remote control
- Integrated clutch control – less wiring and components
- Many types of communication – easy supervision and servicing
- Perfect price/performance ratio
- Built-in PLC-integrated control of compressors, pumps or other driven technology

Features

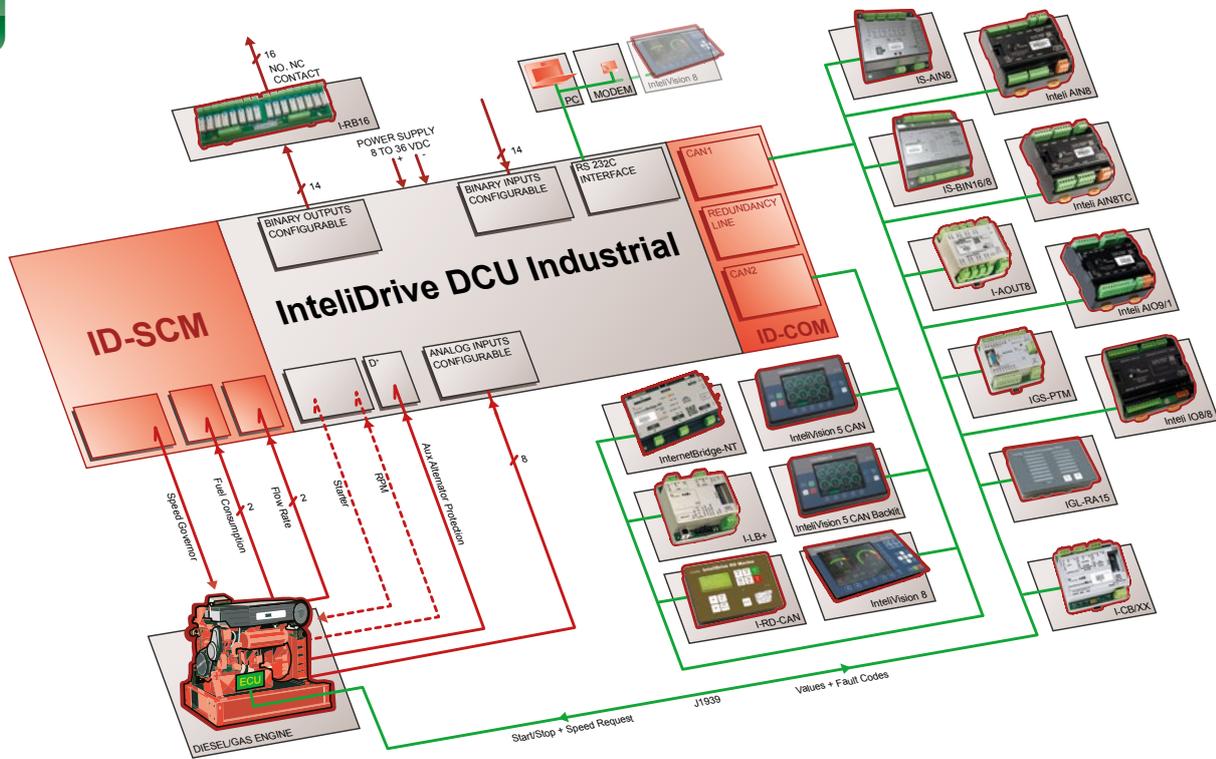
- Engine control, monitoring and protection
- 14 binary inputs, 14 binary outputs, 8 analog inputs
- RS232/Modem/Modbus/Internet communication
- Engine measurement from sensors or via J1939
- Input/output and J1939 configuration
- Running hours meter, number of starts counter
- Graphic back-lit LCD display with icons and bar graphs
- Sealed membrane panel to IP65
- 180x 120 mm front panel mounted case
- Operating temperature:
 - -20°C to +70°C regular unit
 - -40°C to +70°C low temperature unit
- 3 level password protection
- InteliDrive DCU Industrial controller meets several forcing counter standards (EN, UL, CSA, NFPA)
- Internal – configurable PLC functions

TYPICAL APPLICATION:

Gas compressor

see page 115

InteliDrive DCU Industrial



Speed control modules ID-SCM, ID-SCM1

- 2x RPM, 2x IMP, 3x AOUT
- See page 70 and web pages

Communication interface ID-COM

- Multi-controller and/or Remote display communication and/or InternetBridge-NT and/or I-LB+
- See page 71

Comm. modules and PC tools

- **InternetBridge-NT** see page 71
- **I-CB** see web pages
- **I-LB+** see web pages
- **WinScope** see page 72
- **IntelliMonitor** see page 76
- **DriveConfig** see page 77
- **IntelliSupervisor** see web pages

Configurable PLC functions

- Logical functions: AND, OR, XOR, RS
- Comparators with delay or with hysteresis
- Analog switch from two inputs to one output
- Math. functions: ADD, SUB, MAX, MIN, AVG
- Linear interpolation, Moving average
- PID loops with analog or binary outputs
- Counters, Timers, Delay functions
- History and protection forcing

Relay board I-RB8 / I-RB16

- 8 or 16 relays for IntelliDrive DCU Industrial (ID-RPU) binary outputs separation
- Each channel has both N.O. and N.C. contacts available
- LED state indication
- See web pages

Extension modules and displays

- up to 4x **IGL-RA15** see page 71
- up to 4x **IGS-PTM** see page 71
- **Inteli AIN8**¹⁾ see page 71
- up to 4x **Inteli IO8/8** see page 71
- up to 4x **IS-AIN8** see page 71
- up to 4x **IS-BIN16/8** see page 71
- up to 4x **I-AOUT8** see web pages
- up to 3x **I-RD-CAN** see web pages
- **Inteli AIN8TC**¹⁾ see web pages
- **Inteli AIO9/1**¹⁾ see web pages
- up to 3x **InteliVision 5 CAN** see page 59
- up to 3x **InteliVision 5 CAN Backlit** see page 59
- up to 3x **InteliVision 8** see page 60

Indonesia

Rockcrush Dredge

SIS Mining Management were looking for a system capable of economically removing overburden from a coal mine, 100 m below ground near Borneo, Indonesia. Australia based Power and Drive Solutions provided a system capable of controlling and monitoring the entire infrastructure from a single operator's seat. The system comprised of a diesel driven dredge to process the overburden, and a network of boosters to lift the dense mass 100 meters vertically, and then through 800 meters of pipe to an open pit. Power & Drive Solutions utilized ComAp's IntelliDrive DCU controllers to control the engines as well as the ancillary equipment. The built in logic functions allowed for the entire pumping system to be controlled from the IntelliDrive DCU, thus making integration a simple single point connection.



1) The number of connected modules depends on the software version.

InteliDrive DCU Marine

MODULAR ENGINE CONTROLLER FOR MARINE APPLICATIONS

The InteliDrive DCU Marine is an engine controller specifically designed to meet the demanding requirements of the marine market. The unit provides a high level of performance with extensive communications and safety functions, as well as primary/ secondary power switching.

The controller is easily integrated into the ship's control system and has the capability fully communicate with electronic engines. ComAp developed this capability for their market leading genset controllers, and adapted it to function in the marine environment through the use of J1939 communication buses.

The InteliDrive DCU Marine has an engine specific approach which allows the unit to communicate fully with the engine's Electronic Control Unit (ECU), delivering a greater range of values, and most importantly, delivering all diagnostic information in easy to read text, rather than potentially confusing codes or flashing lights.

The InteliDrive DCU Marine provides users with a highly flexible control solution, with configurable inputs and outputs allowing the controller to be customized to a particular application without the need for complicated programming.

Watch the video from the application with this product!



TYPICAL APPLICATION:

Ship power management system

see page 106

Ship control system

see page 118



WebSupervisor

Benefits

- Integrated solution with hardwired safety functions – less wiring and components
- Full communication support of engines with ECU – simpler wiring, access to information from ECU via Modbus
- Event driven history record, easy backtracking and problem solving
- Load sharing for propulsion engines – better utilization of power from installed engines
- Slave panel available – economical solution for remote control
- Integrated clutch control – less wiring and components
- Many types of communication – easy supervision and servicing
- Perfect price/performance ratio
- Type approval from major certification societies

Features

- Engine control, monitoring and protection
- 14 binary inputs and outputs, 8 analog inputs
- RS232/Modem/Modbus/Internet communication
- Redundant module ID-RPU with hardwired safety functions activated in backup mode
- Switching between primary and secondary battery (with ID-RPU module)
- Automatic switchover to backup mode in case of detection of main unit failure
- Internal – configurable PLC functions
- Graphical screen with icons and bar graphs
- Event and time driven history record for backtracking
- Different engine application support: Auxiliary, Emergency/Harbour, Propulsion
- Clutch control for propulsion engines
- Symmetrical load sharing for propulsion engines with J1939 (via CAN bus)
- Extension modules for expandable number of Inputs/Outputs (connected via CAN bus)
- Slave panels for remote control available
- Inputs/Outputs configuration
- Configurable list of values that are read from J1939 bus
- Support of redundant J1587 communication bus
- Direct speed/load control via J1939 or J1587 buses
- Diagnostic information from J1939 or J1587 displayed in plain text easy to read
- Configurable Modbus and Modbus-TCP support for easy integration into the ship's control system

InteliDrive Mobile

ELECTRONIC CONTROLLER FOR MOBILE APPLICATIONS

The InteliDrive Mobile is a highly flexible, sophisticated mobile electronic controller, which features outstanding control, monitoring and protection for diesel and gas engines as well as driven technology. The new controller offers range of specific functions suitable for mobile applications as hydraulic system control, communication with sensors and operational devices control.

Most commonly, these tailored applications meet the specific control requirements of mobile hydraulics, engine driven compressors and pumps.

InteliDrive Mobile has been specially designed for harsh environments where mobile machinery is typically used. The unit construction features a fully environmentally sealed enclosure and connector, vibration and EMC robustness along with a wide temperature operating range.

InteliDrive Mobile can communicate via standard and proprietary CAN J1939 communication protocols to a wide range of EFI engines, which include Caterpillar, Cummins, Detroit Diesel, Deutz, GM, Iveco, Isuzu, John Deere, MAN, MTU, Perkins, Scania, Sisu, Volvo Penta and others.

The set of PLC (analog and binary) functions is available in the standard software for control of driven technology. Predefined highly flexible functional blocks enable to create a control algorithm without the need for complex programming. CAN-bus and RS485 communication lines together with optional internal GSM/GPRS and GPS module give perfect overview of system status to both local operator and technician in remote monitoring center.



Benefits

- Integrated solution, less wiring and components
- Support of engines with ECU – access to all available values and fault codes
- Designed specifically for harsh environment – trouble free operation in all conditions
- History log out, monitoring of wide range of parameters – easy troubleshooting and warranty claim handling
- Remote monitoring support – reduced call-out costs of service engineers
- AirGate connection technology for remote wireless monitoring and control, for localization and Geofencing

Features

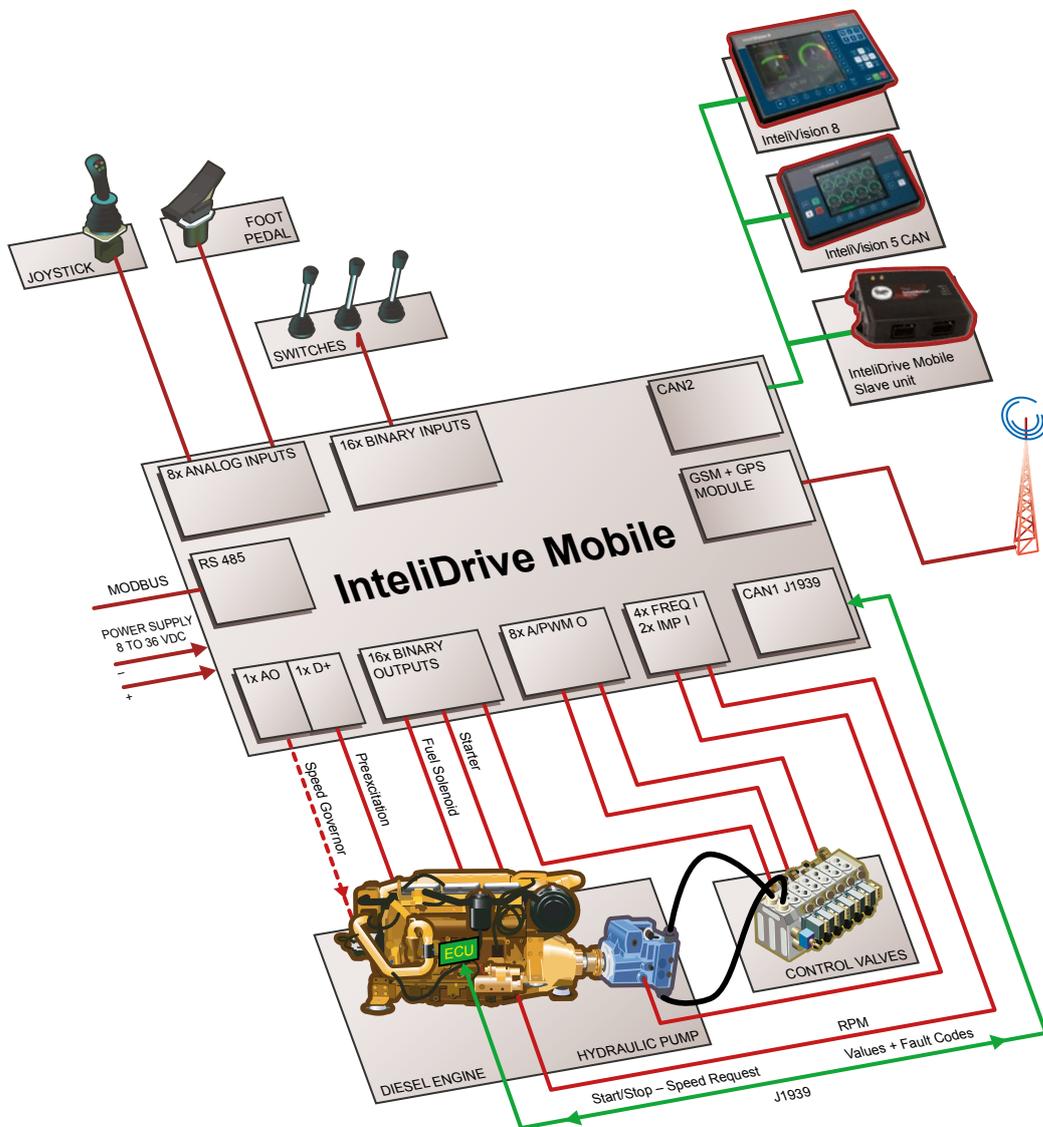
- J1939 support with Input/Output configuration for engine measurement and control
- Optional internal GSM / GPRS modem and GPS receiver
- Compatible with AirGate
- Master-Slave concept to extend I/O and other functions
- Built-in PLC functions: Logical functions, Comparators, Analog switches, Mathematical functions, Linear interpolation, Filters, PID loops, Timers, Delay functions
- 4+12 Binary inputs with detection of broken wire
- 16 Binary configurable switches: 3A, High-side / Low-side, broken wire detection, PWM
- 8 Analog inputs configurable for industry standard sensors
- 8 Analog configurable inputs/outputs
- 2 Impulse inputs (e.g. for rotary flow meters)
- 4 Frequency inputs for RPM measurement
- Operating statistics (running hours etc.)
- RS485 communication line with Modbus
- CAN-bus connection of external displays
- Operating temperature: -40°C to +80°C
- Supply voltage: 8–36 VDC continuously, 6 VDC for 1s
- EMC compatibility: EN61000-6-1/2/3/4, SS4631503(PL4), IEC 255-3
- Vibration resistivity: EN 60068-2-6; EN 60068-2-64
- Functional safety according to IEC 61508, SIL3
- Shock test: IEC 68-2-27
- Dust and water protection IP67

TYPICAL APPLICATION:

Forwarder

see page 116

InteliDrive Mobile



Various displays available

IntelliVision 5 CAN

- 5,7" TFT, 320x240 pixels
- 175 x 113x55 mm



IntelliVision 5 CAN Backlit

- 5,7" TFT, 320x240 pixels
- 175 x 113x55 mm
- Backlit Buttons



IntelliVision 8

- 8" TFT, 800x600 pixels
- 289,5 x 186 x 40 mm



Australia

Wheel loader



IntelliDrive Mobile was used in this application because of the need for advanced PLC functionality to achieve a complex range of additional functions and safety features on this specially modified wheel loader. The programmable Hi-Resolution colour display fitted in the cab gave the operator specific text advice on alarms that were present, corrective actions needed as well as the option for camera display for rear or obstructed views.

- The unit has J1939 CAN interface as standard for direct communication and control with the electronic engine, the option of Geo-Fencing and GPRS modem communications.
- A robust IP67 rated waterproof, vibration and dust proof enclosure completed the package designed to exceed the most demanding environmental conditions.



InteliDrive Mobile Logger

DATA LOGGER FOR DIESEL AND GAS ENGINE DRIVEN OFF-ROAD AND INDUSTRIAL APPLICATIONS

InteliDrive Mobile Logger

The InteliDrive Mobile Logger is a highly flexible sophisticated data logger, which features outstanding, monitoring and history tracking for diesel engines as well as peripheral equipment.

InteliDrive Mobile Logger has been specially designed for harsh environment of outdoor industrial equipment.

The unit construction features a fully environmentally sealed enclosure and connector, vibration and EMC robustness along with a wide temperature operating range.

InteliDrive Mobile Logger can communicate via standard and proprietary CAN J1939 communication protocols to a wide range of EFI engines, which include Caterpillar, Cummins, Detroit Diesel, Deutz, GM, Iveco, Isuzu, John Deere, MAN, MTU, Perkins, Scania, Sisu, Volvo Penta and others. Extremely flexible input structure enables to support wide range of applications.

Rich set of Binary, Frequency or Analog Inputs is optimized for direct connection to all industry standard sensors and output devices.

CAN-bus and RS485 communication lines together with optional internal GSM modem and GPS module give perfect overview of system status to both local operator and technician in remote monitoring center.



Benefits

- Integrated solution, less wiring and components
- Engine specific, plug and play support of engines with ECU – access to all available values, without the need for programming
- Designed specifically for harsh environment – trouble free operation in all conditions
- Built-in Event & Performance Log – easy troubleshooting and warranty claim handling
- Remote monitoring support – reduced call-out costs of service engineers
- History log out – monitoring of wide range of parameters
- WebSupervisor – AirGate compatible with GSM/GPS localization and Geofencing of supervised machines available

Features

- Engine measurement by sensors and actuators or via J1939
- 8 binary inputs
- 4 binary outputs
- 11 configurable analog inputs
- 2 impulse inputs
- 1 frequency input for RPM measurement
- LED status indication
- Communication interface: RS485, 2xCAN, J1939
- Operating temperature: -40°C to +80°C
- Integral fuel consumption measuring
- Operator log-in possibility
- Memory size up to 524.000 records
- Supported download formats: xls, csv
- Dust and water protection IP67
- Internal GPS receiver and GSM/GPRS modem

Accessories and PC tools

- | | | | |
|----------------------------|---------------|-------------------------|---------------|
| ● ID-Mobile GPRS | see web pages | ● ID-Display D13-V | see web pages |
| ● ID-Mobile GPS | see web pages | ● WinScope | see page 72 |
| ● ID-Mobile GSM | see web pages | ● WebSupervisor | see page 73 |
| ● ID-Mobile Logger Harness | see web pages | ● InteliMonitor | see page 76 |
| ● Antenna | see web pages | ● DriveConfig | see page 77 |
| ● InteliVision 5 CAN | see page 59 | ● Logger History Export | see web pages |
| ● InteliVision 8 | see page 60 | ● InteliSupervisor | see web pages |
| ● ID-Display 2600 | see web pages | | |

TYPICAL APPLICATION:

Dump Truck – Data Logging

see page 117

About ComAp





ComAp

ComAp is a dynamic international company with a solid reputation for delivering innovative electronic solutions to the power generation, industrial engine and equipment markets. By providing customers with state-of-the-art products, ComAp has built a name for delivering excellent reliability and good value.

Excellent and reliable product solutions

ComAp specializes in creating electronic control and management solutions for use in the power generation industries and drive power markets. Our portfolio of products, software and accessories is designed to support emergency power, standby power generation and engine driven applications all over the world. We also work closely with our customers to develop unique customized and turn key solutions for ordinary and extraordinary applications delivering high standards of excellence on every project.



ComAp products represent some of the most reliable solutions on the market today. Every component and product undergoes the most rigorous standards during manufacture, with every stage being undertaken in accordance with international ISO 9001 certification. Our products are backed with the approvals from major Marine Certification Societies. Accreditation

UEFA European Football Championship (National stadium in Warsaw)



at the highest-level breeds confidence, and every ComAp product is supplied with an appropriate warranty and after-sales support for complete peace of mind.

People make the difference

ComAp's key strengths are flexibility, experience, knowledge and enthusiasm. This blend of values defines our personality and gives you the assurance of a truly honest and positive relationship. By supporting our people, investing in their development and encouraging creativity, our teams work hard to find new opportunities, technologies and solutions that enable us to successfully help our customers solve their problems effectively.

At ComAp, we believe passionately in the importance of continuously developing new technology along with forward thinking software and hardware to maintain the enviable position as worldwide leader in communication and control for power generation and drive power applications.

At the heart of this process is a strong desire to exceed our customers' expectations by finding outstanding solutions for them and drawing upon the company's most valuable

F1 Singapore GrandPrix





asset – people. Over 80% of ComAp employees are graduates with specialized electronic and programming knowledge appropriate to the innovative development of market-orientated engine management systems. This unique know-how is matched by ComAp's significant investment at every stage of the research and development process, resulting in the creation of leading edge modern development facilities. ComAp is proud to continue being one of the top companies in the

world, an achievement which is challenging to sustain, but something we endeavour to preserve. We consistently set high standards, and try to be the best, something which is reflected by our achievement in the 'Best Employers Study in the Czech Republic' (conducted by Hewitt Associates), where we were awarded first place in 2009.

And, amidst fierce competition, in 2011 we were delighted to be amongst the top five companies in the Czech Republic once again. Our passion for excellence pushes us ever forward, and you can be sure that whatever the future brings, we will be there.

Putting customers first

ComAp's expertise extends beyond innovative controllers, our key strengths are flexibility, experience, knowledge and enthusiasm, enabling us to successfully help our customers solve their problems quickly and effectively. Using our vast global distribution network with 24 hour technical support, and a free dedicated training centre in Prague, we are able to work closely with our clients, maintaining the highest level of satisfaction, something we are very passionate about, and constantly strive to achieve.



Key Milestones

1991

ComAp is established.

1993

Successful commissioning of four Gen-set Control Systems made by ComAp on several islands in the Mediterranean.

1994

MX controller, the second generation of ComAp's gen-set control systems, is launched.

1996

PX, the revolutionary gen-set controller with configurable input and outputs, is developed.

2000

InteliGen, the first member of the Inteli family and flagship of their gen-set control systems, is released.

2001

ComAp Ltd. – The first foreign ComAp subsidiary is established close to Bristol.

2002

InteliSys, a top end product dedicated to CHP and large engine control applications, is released. New mid-range product InteliLite is launched for AMF and – InteliDrive controllers for non gen-sets, engine driven applications is released.

2006

ComAp LLC – ComAp subsidiary to promote products in the USA and Canada is established.

2007

InteliVision 8 – the first color display unit in the power generation field.

2008

InteliCompact – controller for simple paralleling gensets is launched.

2010

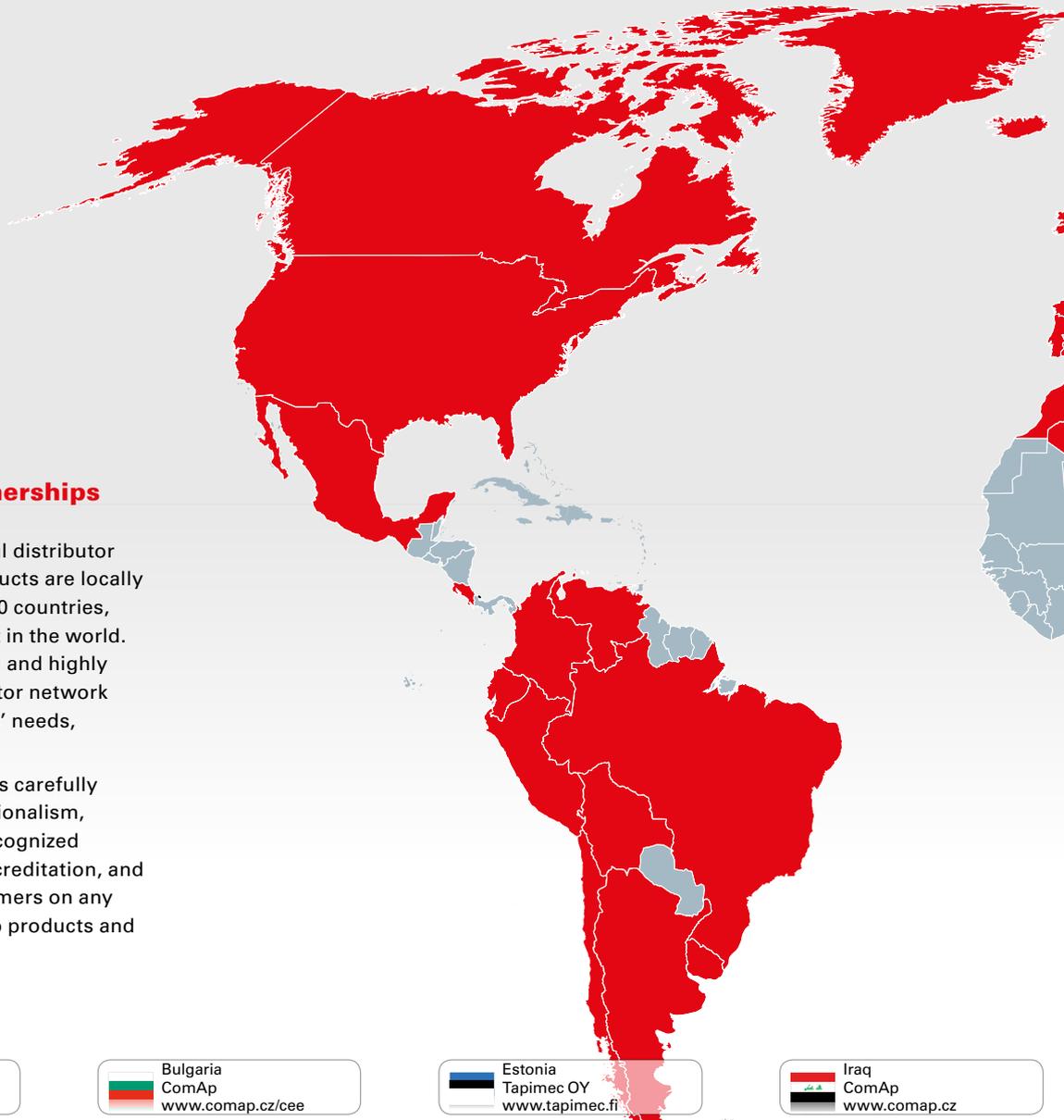
InteliVision 5 and InteliGen^{NT} BaseBox controller concept are released.

2012

Application for Apple iOS devices and Google Android devices is launched allowing product control via smartphones and tablets.

2014

ComAp's WebSupervisor is translated into its 10th language: Portuguese.

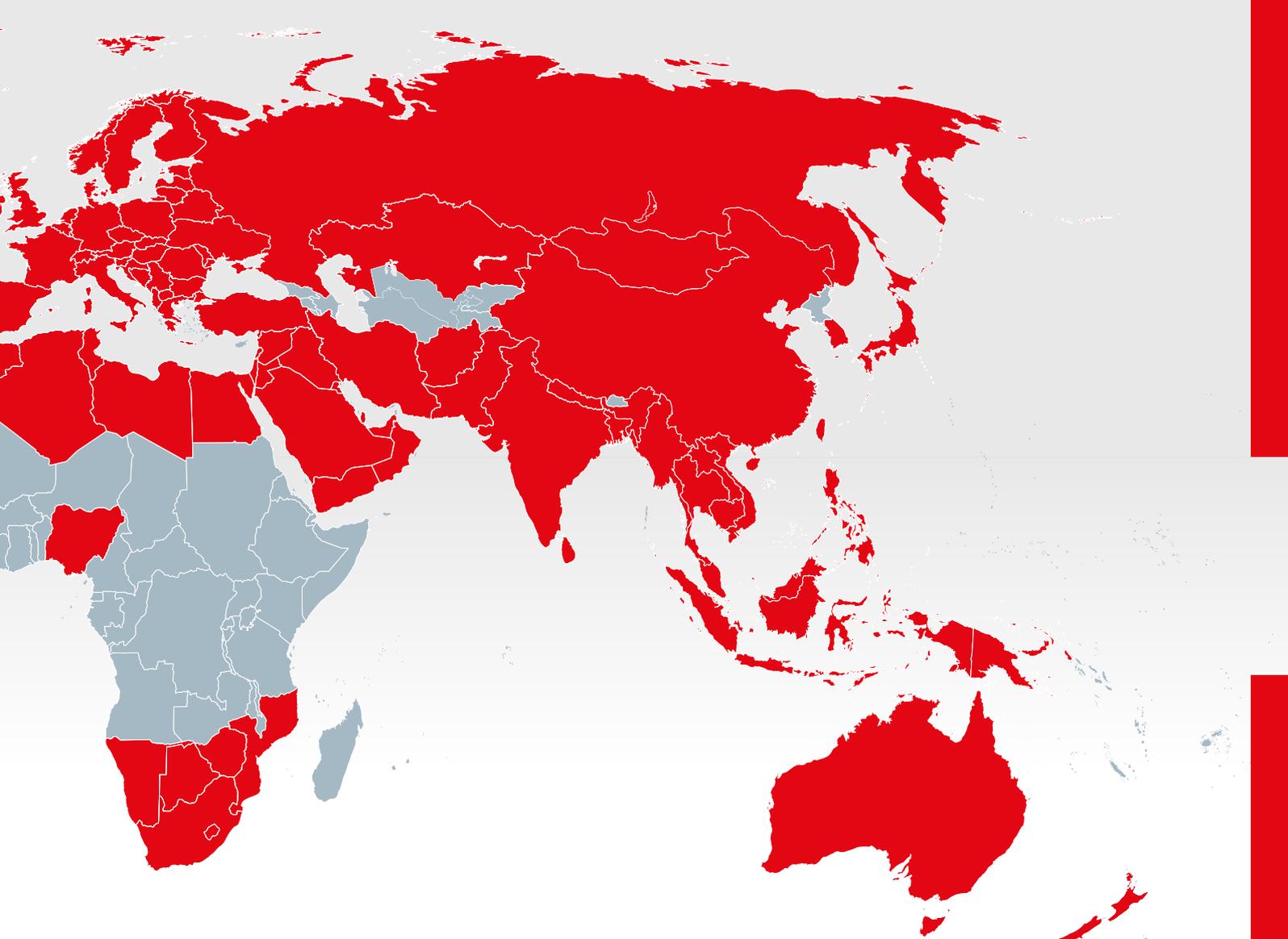


Professional partnerships

ComAp's extensive global distributor network means that products are locally available in more than 100 countries, spanning every continent in the world. Through our professional and highly dedicated global distributor network we can satisfy customers' needs, however challenging.

Each ComAp distributor is carefully selected for their professionalism, product expertise and recognized quality standards and accreditation, and as such can advise customers on any matter relating to ComAp products and their applications.

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Algeria H-T-F www.h-t-f.fr	Cambodia ComAp www.comap.cz	Faroe Islands PTECH www.ptech.dk	Ireland Industrial Power Units Ltd. www.ipu.co.uk
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TRAINING CENTRE

Learn more about our products

The ComAp state-of-the-art Training Centre in Prague, Czech Republic allows ComAp customers unrivalled use and access to ComAp products in a modern purpose built facility. The centre has been designed for both theoretical classroom-based training sessions, and also practical experience based training using the latest ComAp products on operational gen-sets.

The group of installed gen-sets are able to simulate real-world conditions to allow customers to understand the practical application of ComAp products. This practical experience is invaluable in creating a learning environment and was a key consideration when building the new facility.

The embedded control systems allow users to simulate any application from simple applications with just basic controllers to complex (multiple Mains/gen-set) applications with bus tie breakers and feeders. Users can experience simulated drops in power, load shedding and many other scenarios without risking damage to expensive

equipment, as the demonstration machines have been specifically designed for training purposes.

For the price of travel and a hotel, you can learn at your own speed, without risking damage to expensive equipment. Hands-on training helps lower downtime, which helps keep costs down, through users enjoying and understanding the full benefits of their systems, taught by product specialists selected for their expertise.

Our programme of training includes the following courses:

- ▶ Standard A
- ▶ Standard B
- ▶ Advanced
- ▶ Advanced Plus
- ▶ Engine
- ▶ Bi-fuel



Simply register online for our hands-on training courses.

For details of each course refer to the ComAp website

www.comap.cz/support/training/hands-on/



TECHNICAL SUPPORT

Call us on +420 246 012 666

Our technical support specialists will help you to solve your requests. Detail info at www.comap.cz/support/technicalsupport

Available Monday to Friday (excluding national holidays).

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Order codes (The overview of selected products and their order codes)

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InteliNano ^{NT} AMF	IN-NT AMF
InteliNano ^{NT} Plus	IN-NT PLUS
InteliLite ^{NT} MRS 10	IL-NT MRS10
InteliLite ^{NT} MRS 15	IL-NT MRS15
InteliLite ^{NT} MRS 16	IL-NT MRS16
InteliLite ^{NT} AMF 20	IL-NT AMF20
InteliLite ^{NT} AMF 25	IL-NT AMF25
InteliCompact ^{NT} SPTM	IC-NT SPTM
InteliCompact ^{NT} MINT	IC-NT MINT
MainsCompact ^{NT}	MC-NT
InteliGen ^{NT}	IG-NT GC
InteliGen ^{NTC} BaseBox	IG-NTC-BB
InteliSys ^{NTC} BaseBox	IS-NTC-BB
InteliMains ^{NTC} BaseBox	IM-NTC-BB
InteliATS ^{NT} STD	IA-NT STD
InteliATS ^{NT} PWR	IA-NT PWR

Product name	Order code
InteliPro	INTELI PRO
MainsPro	MAINS PRO
InteliDrive Nano	ID-NANO
InteliDrive Nano WP	ID-NANO WP
InteliDrive Lite	ID-FLX-LITE
InteliDrive Lite EM	INTELIDRIVE EM
InteliDrive Lite FPC	ID-FLX FPC
InteliDrive DCU Industrial	ID-DCU
InteliDrive DCU Marine	ID-DCU MARINE
InteliDrive Mobile	ID-MOBILE
InteliDrive Mobile Logger	ID-MOBILE LOGGER
InteliBifuel 2	IBF-2
InteliBifuel 20	IBF-20
InteliVision 5	INTELIVISION 5
InteliVision 8	INTELIVISION 8
InternetBridge-NT	IB-NT



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Customer satisfaction is our mission. We continuously develop our people to be the best to succeed in our mission.

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