

InteliDrive Lite

ENGINE CONTROLLER FOR PUMPS AND COMPRESSORS



Tier 4

Description

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 priceless 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.

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



AirGate
Modern communications made simple. ComAp's powerful AirGate technology is provided in a range of our controllers and makes remote Internet connection to the ComAp controller easy. Just register the AirGate enabled controller on our website and from then on let ComAp's unique system locate and maintain contact with the controller, no need to worry about VPN's, Static IP addresses or corporate firewalls, simple! "AirGate – Simply connected."



WebSupervisor
The WebSupervisor system, a secure web based remote monitoring system which allows equipment fitted with various types ComAp units to be monitored via the Internet from a remote PC or other web enabled device such as smartphone, webbook, etc. It operates in any Internet browser and needs no special software to be installed. User can view recorded data from their equipment, receive Email alerts on alarms and control the remote units. Dedicated App's for iPhone and Android provide a truly mobile constant connection with the monitored equipment.



LOCATE
ComAp's LOCATE system uses the power of cellular communications technology to provide users and peace of mind that the monitored asset is where it should be. Locate provides location data to the WebSupervisor system without the need for costly GPS positioning equipment and works anywhere there is a cellphone signal, even indoors. Not only will WebSupervisor show the position of the monitored equipment, it will also maintain a track history and show route of the movement on a map. "LOCATE – Simply here!"



ComAp is a member of AMPS (The Association of Manufacturers of Power generating Systems).



ComAp products meet the highest standards, with every stage of production undertaken in accordance with the ISO certification obtained in 1998.



The product has the UL Certification.

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 × 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
- ▷ IntelliDrive Lite controller meets several standards (EN, UL, NFPA)

Communication modules and PC tools

- ▷ **IB-Lite** – Internet/Ethernet plug-in module including Web server
- ▷ **IL-NT RS232** – RS232 extension board
- ▷ **IL-NT RS232-485** – Dual port extension board
- ▷ **IL-NT S-USB** – Service USB module
- ▷ **IL-NT GPRS** – GSM/GPRS modem plug-in module
- ▷ **LiteEdit** – PC configuration and monitoring tool
- ▷ **WebSupervisor** – Cloud-based system for monitoring and controlling of ComAp controllers
- ▷ **WinScope** – Special graphical controller's monitoring software

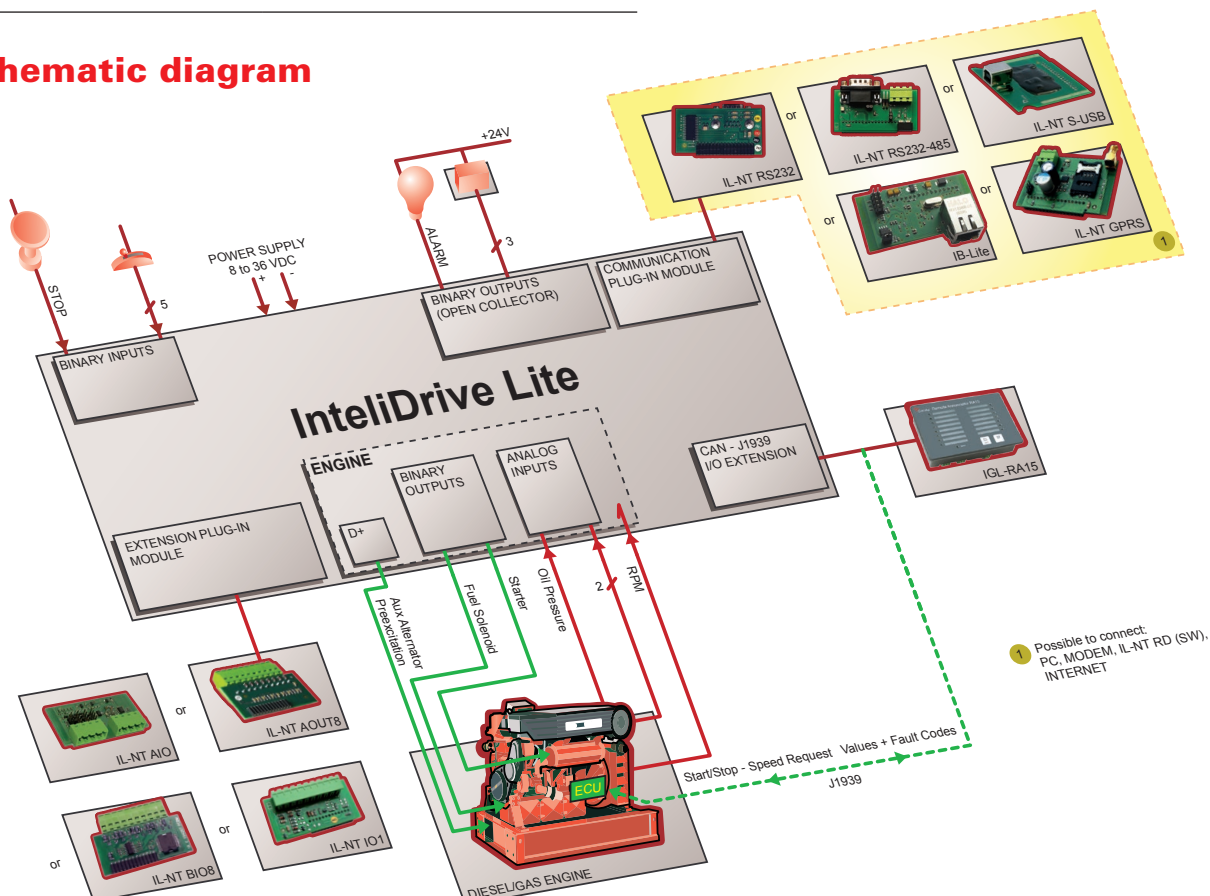
Extension modules and remote display

- ▷ **IGL-RA15** – Remote annunciator
- ▷ **IL-NT AIO** – Analog input/output module (4xAI and 1xAO)
- ▷ **IL-NT AOUT8** – Analog outputs for PWM gauges module (8xAO)
- ▷ **IL-NT BIO8** – Binary input/output module (8xBI or BO)
- ▷ **IL-NT IO1** – Analog output and binary input module (4xAO and 4xBI)
- ▷ **IL-NT RD (SW)** – Remote display software for IntelliATS^{NT}, IntelliLite^{NT} and IntelliDrive Lite controllers

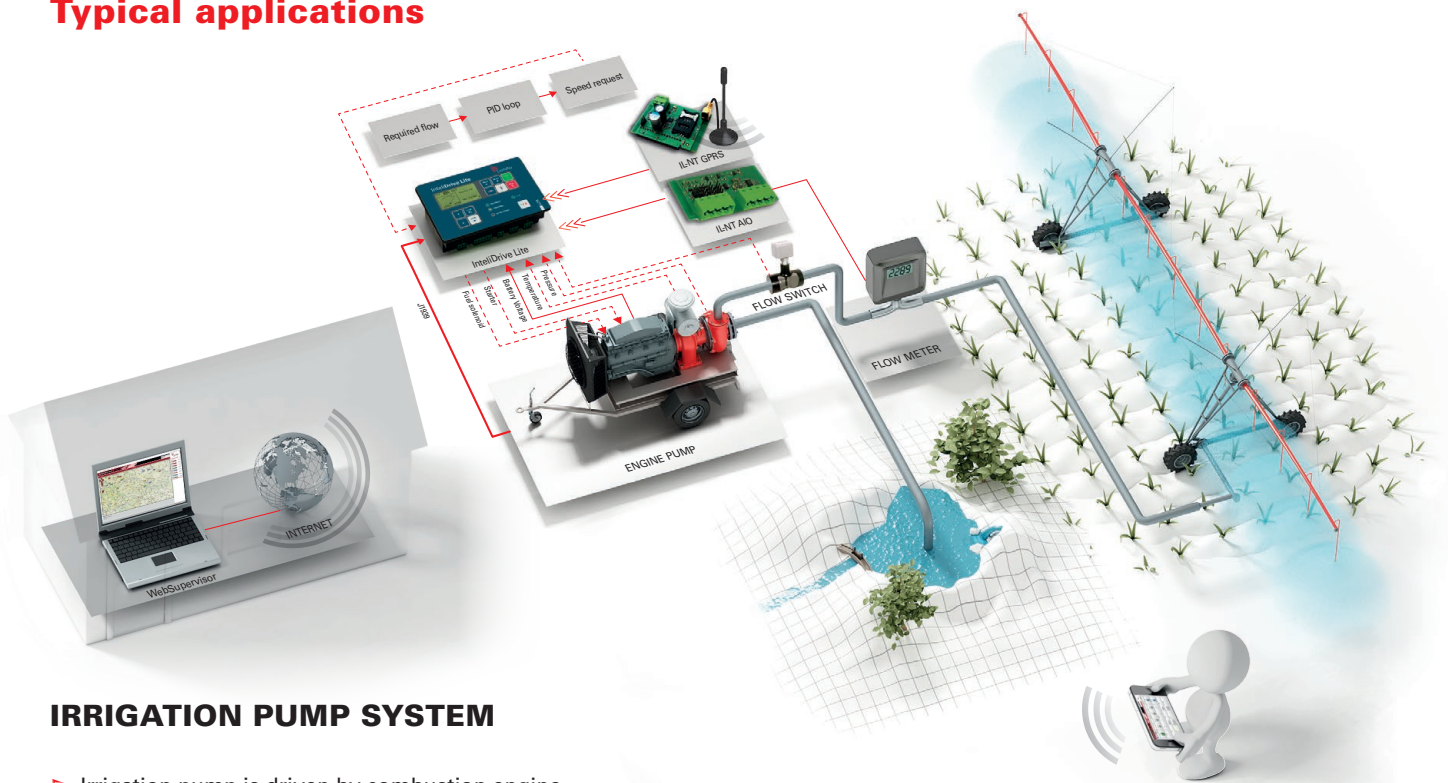
Order code

Product	Order code
IntelliDrive Lite	ID-FLX-LITE

Schematic diagram

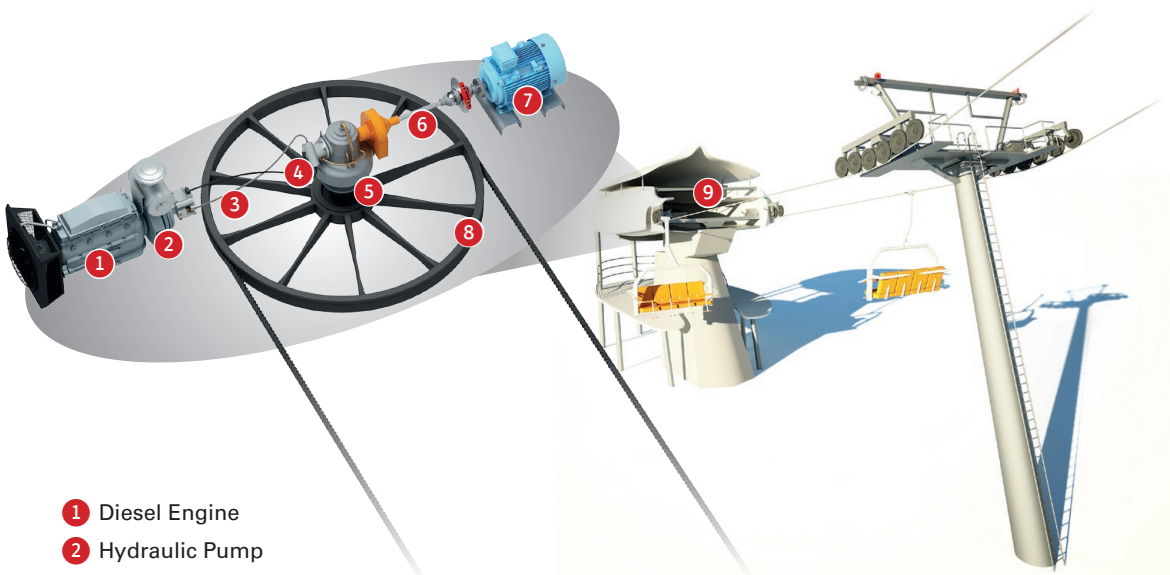


Typical applications



IRRIGATION PUMP SYSTEM

- ▶ Irrigation pump is driven by combustion engine.
- ▶ InteliDrive Lite makes complete controls, monitoring and protection of the engine.
- ▶ Water flow from a pump is measured by flow-meter. InteliDrive Lite controls variable speed engine, which enables to change water flow according momentary need.
- ▶ InteliDrive Lite protects engine against overload via engine load limitation function based on Load information from ECU.
- ▶ The system status and required flow is monitored and adjustable via GPRS communication module from a central supervision point via integrated and enhanced PLC logics, as well as the engine-speed load is controlled via PID-loops.
- ▶ The advanced bi-directional CAN-Bus communication helps simplify the wiring to the engine.



- 1 Diesel Engine
- 2 Hydraulic Pump
- 3 High Pressure Hoses
- 4 Hydraulic Motor
- 5 Reducer
- 6 Shaft with Disc-brake
- 7 Electric Engine
- 8 Driven Bullwheel
- 9 Drive Station

EMERGENCY DRIVE FOR SKY LIFT

- ▶ The drive station of the chairlift is normally geared by a big electric motor with frequency converter by means of a short shaft and a big reducer.
- ▶ Diesel engine is used as an emergency drive in case of mains failure. It drives the lift via an engine-mounted hydraulic pump and hydraulic motor on the reducer.
- ▶ Engine is controlled and protected by InteliDrive Lite, which communicates with engine's electronic injection control unit via CAN communication bus.

InteliDrive – a proven family of technology driven solutions

InteliDrive Lite FPC

MODULAR ENGINE CONTROLLER FOR FIRE CONTROL

- ▶ InteliDrive Lite FPC (following the NFPA 20 standard) is designed for diesel driven fire pumps applications. The solution is based around the hardware of a standard ComAp industrial engine controller, with a proven track record for flexible and reliable control of standby and synchronized gas or diesel generator applications. 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. The controller has configurable digital inputs and outputs which are set up to suit the installation requirements.



InteliDrive Lite EM

ELECTRIC MOTOR CONTROLLER

- ▶ InteliDrive 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. InteliDrive 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 controller. Optional remote control allows complete monitoring of the application.



InteliDrive DCU Industrial

MODULAR ENGINE CONTROLLER FOR INDUSTRIAL APPLICATIONS

- ▶ 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. Most commonly, these tailored applications meet the specific control requirements of engine driven compressors, pumps, screeners, crushers, drill rigs.



For more information about our products and applications visit

www.comap.cz



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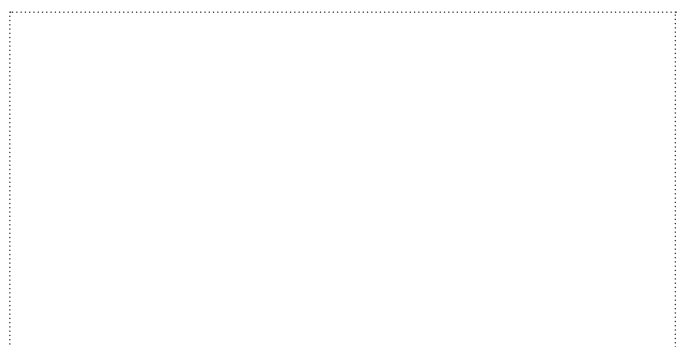
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