

InteliDrive DCU Industrial

MODULAR ENGINE CONTROLLER FOR
INDUSTRIAL APPLICATIONS



Description

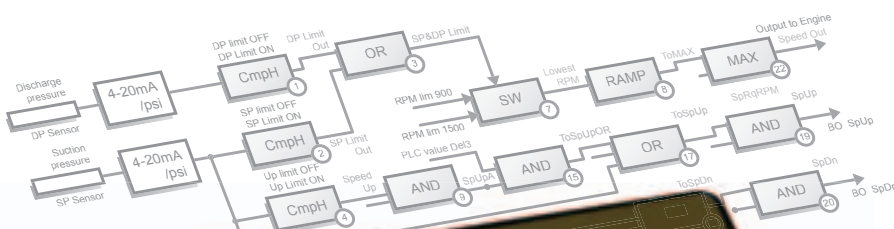
The InteliDrive DCU Industrial is a highly flexible sophisticated engine controller, which features outstanding control, monitoring and protection for both mechanical and electronic diesel / gas engines as well as peripheral equipment. The extended product family offers a range of engine specific versions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

InteliDrive can communicate via standard and proprietary CAN J1939 communication protocols to a wide range of EFI engines, which include Caterpillar, Cummins, Deutz, Detroit Diesel, GM, Iveco, Isuzu, 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 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 intelligible plain text instead of potentially misleading cryptic codes or flashing lights.

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



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.

InteliDrive DCU Industrial

Benefits

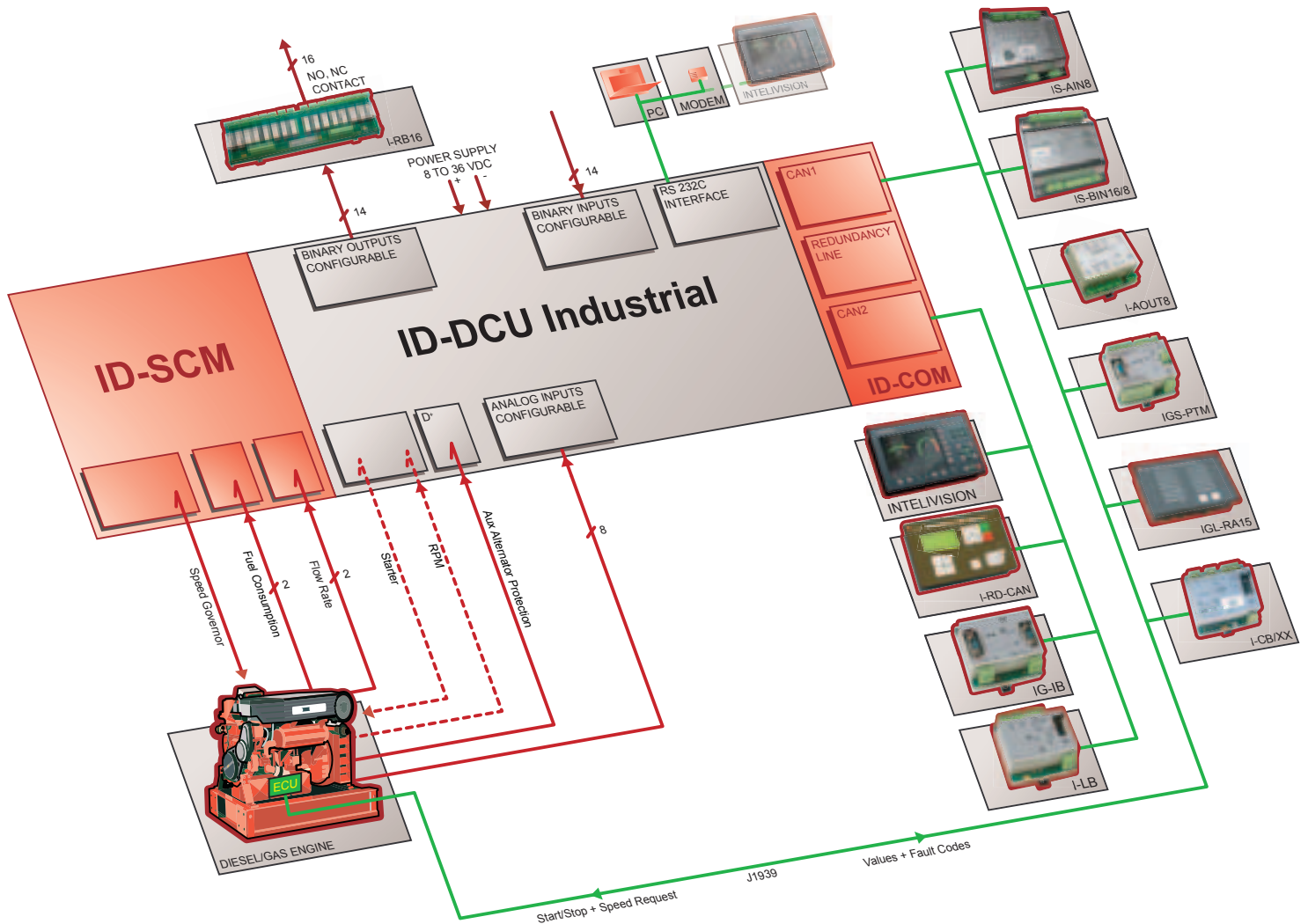
- ▶ Integrated solution with hardwired safety functions – less wiring and components
- ▶ Full communication support of engines with ECU – simpler wiring, access to information from ECU via Modbus
- ▶ Event driven History record, easy backtracking and problem solving
- ▶ Load sharing for propulsion engines – 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
- ▶ 180 × 120 mm front panel mounted case
- ▶ Operating temperature:
 - -20 to +70 °C regular unit
 - -40 to +70 °C low temperature unit
- ▶ 3 level password protection
- ▶ InteliDrive controller meets several forcing counter standards (EN, UL, CSA, NFPA, ...)
- ▶ Internal – configurable PLC functions

Configurable PLC functions

- ▶ Logical functions: AND, OR, XOR, RS
- ▶ Comparators with delay or with hysteresis
- ▶ Analog switch from two inputs to one output
- ▶ Mathematics 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
- ▶ Rump Up/Down, Inc/Dec, Jump, Programmable switches and others



Speed control modules ID-SCM, ID-SCM1

- ▷ 2× RPM inputs
- ▷ 2× IMP pulse inputs
- ▷ 3× Analog outputs (10V/20mA)

Relay board I-RB8 / I-RB16

- ▷ 8 or 16 relays for ID-DCU (ID-RPU) binary outputs separation
- ▷ Each channel has both n.o. and n.c. contacts available
- ▷ LED state indication

Extension modules and remote displays

- ▷ up to 4× **I-AOUT8** (Analog Outputs Extension Module)
- ▷ up to 4× **IGL-RA15** (Remote Annunciator)
- ▷ up to 4× **IGS-PTM** (Input/Output Module)
- ▷ up to 4× **IS-AINS** (Analogue Input Module)
- ▷ up to 4× **IS-BIN16/8** (Binary Input/Output Module)
- ▷ up to 2× **I-RD-CAN** (Remote Display with CAN Bus Interface)
- ▷ up to 3× **InteliVision** (Controller Colour Display Unit)

Communication modules and PC tools

- ▷ **IG-IB** (Internet Bridge)
- ▷ **I-LB / I-LB+** (Local Bridge)
- ▷ **I-CB** (ECU Communication Bridge)
- ▷ **DriveMonitor** (PC Monitoring Tool)
- ▷ **WinScope** (Special Graphical Controllers' Monitoring Software)
- ▷ **DriveConfig** (PC Configuration Tool)

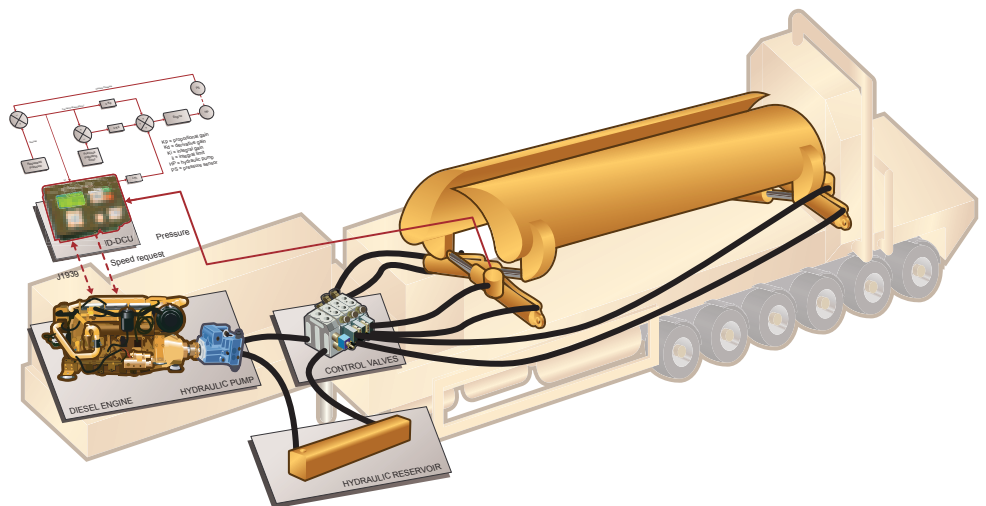
Communication interface ID-COM

- ▷ Multi-controller and/or Remote display and InteliVision communication and/or IG-IB and/or I-LB / I-LB+

Typical applications

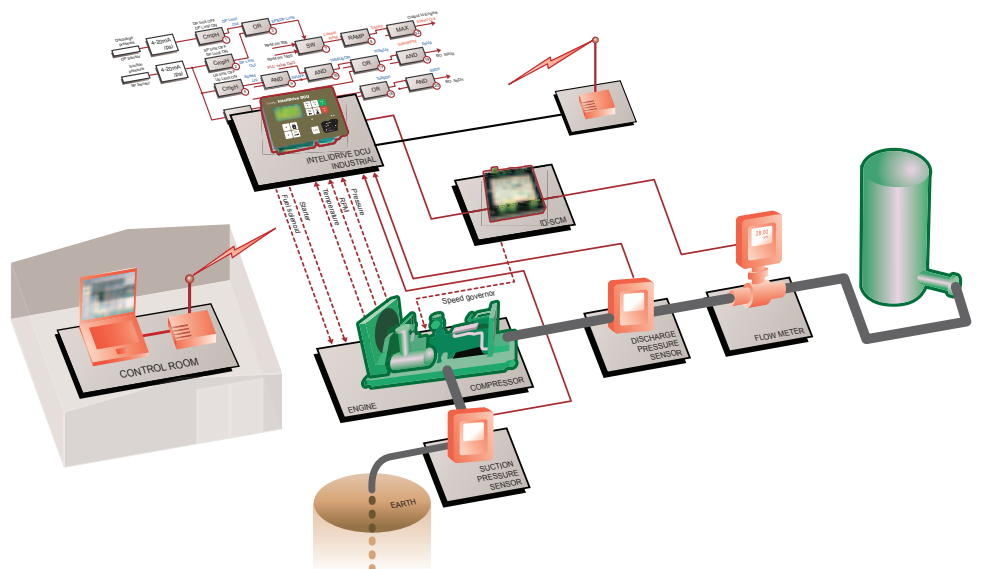
HYDRAULIC OF SHEARING MACHINE

- ▷ Mobile hydraulic shear balers and fragmentizers, which are driven by diesel engines with electronic fuel injection and meet all of the latest emission standards.
- ▷ Subject machines are mainly used to compress scrap-metal and cut it into pieces, very useful for further processing.
- ▷ The ID-DCU Industrial oversees the complete, control, monitoring, fault-logging and protection of the machine operation.
- ▷ All information is visualized on the screen, including faults transmitted via CAN from the engine mounted ECU.
- ▷ The hydraulic sequences are controlled 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.



GAS COMPRESSOR

- ▷ Gas compressor is driven by a combustion engine.
- ▷ InteliDrive makes complete control, monitoring and protection of the engine and compressor.
- ▷ Sophisticated control algorithm using build-in PLC modules accomplishes optimal running conditions for the compressor.
- ▷ Speed of the engine is determined according to the suction and discharge pressures of the compressor.
- ▷ Additional unload and by-pass valves are controlled by InteliDrive in dependence on both suction and discharge pressures.



InteliDrive – a proven family of technology driven solutions

InteliDrive Lite

ENGINE CONTROLLER FOR GENERAL PURPOSES

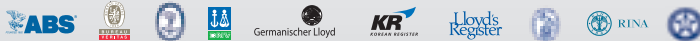
- ▶ The InteliDrive Lite is a cost effective sophisticated engine controller, which features outstanding control, monitoring and protection for both mechanical and electronic diesel / gas engines in one unit. The extended product family offers a range of engine specific versions suitable for land-based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



InteliDrive DCU Marine

MODULAR ENGINE CONTROLLER FOR MARINE APPLICATIONS

- ▶ The InteliDrive DCU Marine is an engine controller designed specially to meet the demanding needs of the marine market, providing a high level of performance coupled with extensive communication capabilities and incorporating hardwired safety functions and primary / secondary power switching.



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.



For more information about our products and solutions visit our web-page

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