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The heart of smart control

InteliDrive Lite

Datasheet

# Engine Controller for Pump and Compressors

Product description

InteliDrive Lite is a comprehensive controller for single engines with extended support of electronic engines and extension modules. InteliDrive Lite controllers are equipped with a powerful graphic display showing icons, symbols and bar-graphs for intuitive operation, which sets, together with high functionality, new standards in engine controls. InteliDrive Lite provides gas engine support without ventilation.

Key features

- ▶ Control, monitoring and protection for both mechanical and electronic diesel/gas engines in one unit
- ▶ Automatic or manual start/stop of the engine
- ▶ Programmable On/Off panel button
- ▶ Support of engines with Electronic Control Unit (ECU) - J1939 or Cummins Modbus
- ▶ Analog gauge (VDO, Datcon and others) outputs – operator friendly
- ▶ Smooth engine speed control
- ▶ 7 configurable binary inputs
- ▶ 7 configurable binary outputs
- ▶ 7 configurable analog inputs (3 resistive, 4 voltage) + 2 not configurable voltage inputs
- ▶ Selectable protections alarm/shutdown

- ▶ 3 level of password protection
- ▶ USB, RS485/RS232/Modem/Modbus communication
- ▶ Automatic SMS on alarm
- ▶ On-line control and monitoring over web pages (embedded web server) via IB-Lite
- ▶ Optional GSM/GPRS modem/wireless Internet via IL-NT GPRS
- ▶ AirGate support
- ▶ 2 languages (user changeable)
- ▶ Real time clock and event history log
- ▶ PLC functions: PID loop, Comparators, Timers
- ▶ Push buttons for simple control, lamp test

Application overview
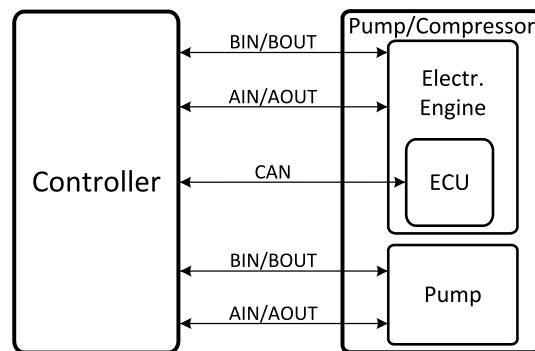
Technical data

Dimensions and weight

Dimensions	180 × 120 × 55 mm
Weight	450 g

Power supply

Power supply range	8-36 V DC
Power consumption	0.104 A / 8 V DC 0.080 / 12 V DC 0.051 A / 24 V DC 0.044 A / 30 V DC 0.040 A / 36 V DC
Allowed supply voltage drop-out:	100 ms from min. 10 V return to min. 8 V
Battery voltage measurement tolerance	2 % at 24 V

Note: *For the supply voltage less than 7 V the backlight of the display is switched off. Short-term voltage drops (e.g. during the engine cranking) do not affect the operation at all.*

Operating conditions

Operating temperature	-20 ˚C to +70 ˚C
Operating temperature (with LT kit)	-40 ˚C to +70 ˚C
Storage temperature	-30 ˚C to +80 ˚C
Protection degree (front panel)	IP65
Impact protection	EN 62262, EN 50102 (IK04)
Low Voltage Directive	EN 61010-1:95 +A1:97
Electromagnetic Compatibility	EN 50081-1:94, EN 50081-2:96 EN 50082-1:99, EN 50082-2:97
Vibration	5-25 Hz, ±1.6 mm 25-100 Hz, a = 4 g
Shocks	a = 200 m/s^2
Heat radiation	3.5 W

Binary inputs

Number	7
Input resistance	4.2 kΩ
Input range	0-36 V DC
Close/Open indication	0-2 V DC close contact 6-36 V DC open contact

Binary outputs

Number	7
Max current	0.5 A
Max switching voltage	36 V DC

Analog inputs

| Number of inputs	9
Resolution	10 bits
Wiring selectable range	V, Ω, mA
Maximal resistance range	2400 Ω
Maximal voltage range	0-10 V (0-40 V for AIN4+5)
Resistance measurement tolerance	±2 % ±2 Ω out of measured value
Current range	0-20 mA
Voltage accuracy	1 %
Resistance accuracy	4 % ±5 Ω

Magnetic pickup

Voltage input range	minimum: 2 Vpk-pk in range 4 Hz to 1 kHz maximum: 50 Veff
Frequency input range	4 Hz to 10 kHz (min. input voltage 6 Vpk-pk)
Frequency measurement tolerance	0.2 %

Dimensions, terminals and mounting
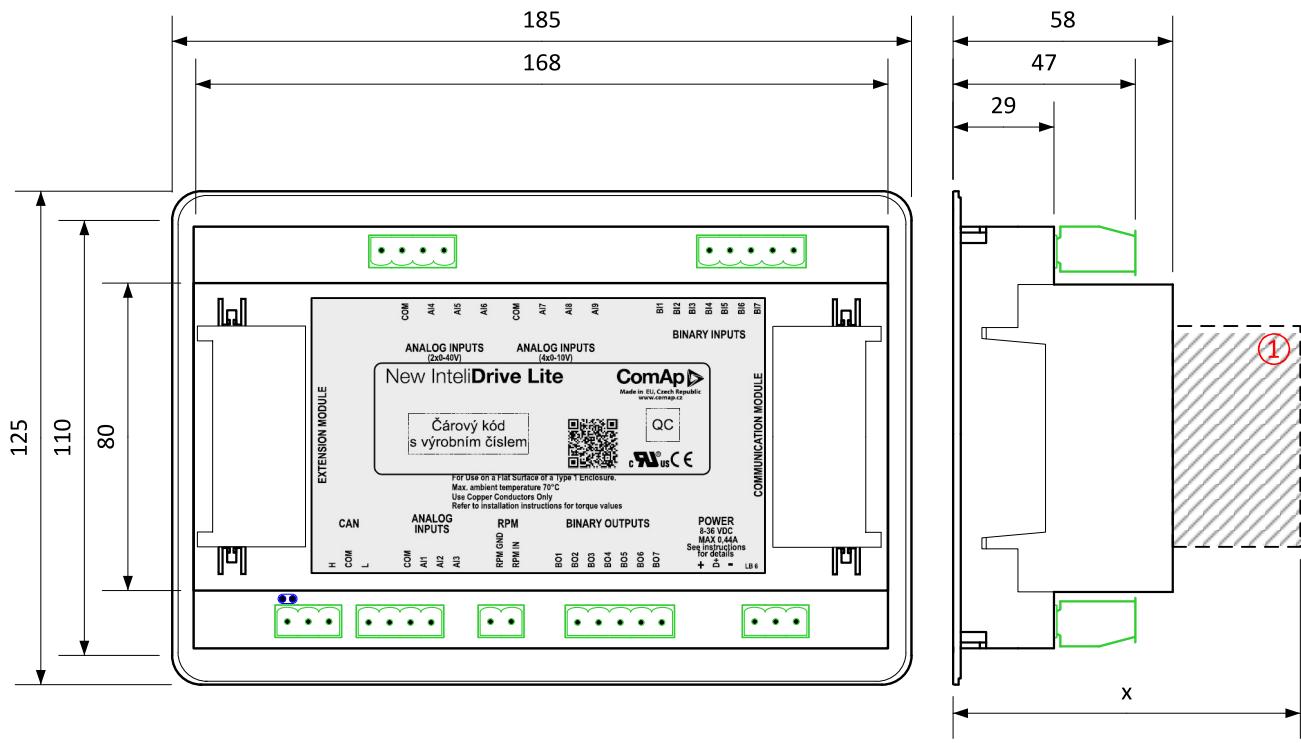
① Plug in module

Note: Dimension x depends on plug-in module.

Panel door mounting
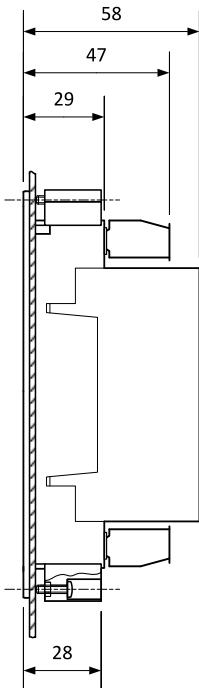
Overview of parameter x

Plug-in module	Parameter x [mm]
IL-NT-AOUT8	75
IL-NT-BIO8	74
IL-NT-IO1	75
IL-NT-AIO	75
IL-NT-RS232	113
IL-NT-RS232-485	115 @ RS232 / 74 @ RS485
IL-NT-S-USB	128
IB-Lite	108
IL-NT-GPRS	122

Note: Parameter x includes reserve for connectors of plug-in modules.

Note: InteliMains^{NT} GC can be mounted into panel doors as a standalone unit using provided metal holders. The cut-out for the unit should be 1 mm wider then the unit on each side (i.e. cut-out dimensions 172 × 112 mm).

Available extension modules

Product	Description	Order code
IL-NT-AOUT8	8 analog outputs packed in a unit	IL-NT-AOUT8
IL-NT-BIO8	8 binary inputs in a unit (HW switchable to 8 binary outputs)	IL-NT-BIO8
IL-NT-IO1	4 binary inputs and 4 analog inputs in a unit	IL-NT-IO1
IL-NT-AIO	4 configurable analog inputs and 1 configurable analog output in a unit	IL-NT-AIO
IGL-RA15	15 binary LED output (3 colors) packed in a rugged metal unit	EM2IGLRABAA
IL-NT-RS232	Communication module which provides additional RS232 interface for controller	IL-NT-RS232
IL-NT-RS232-485	Communication module which provides additional RS232 and RS485 interface for controller	IL-NT-232-485
IL-NT-S-USB	Communication module which provides additional USB interface for controller	IL-NT-S-USB
IB-Lite	Communication module which provides additional Ethernet interface for controller	IB-Lite
IL-NT-GPRS	Communication module with integrated GSM modem with GPRS Internet connection	IL-NT-GPRS
InternetBridge-NT	Multiple Internet connections (PC and Modbus) to all controllers on CAN2 or RS485	IB-NT
I-RB8	Relay board for binary (open collector) output separation. Contains 8 relays	I-RB8
I-RB16	Relay board for binary (open collector) output separation. Contains 16 relays	I-RB16

Certificates and standards

- ► EN 60068-2-30
- ► EN 61000-6-1
- ► EN 61000-6-2
- ► EN 61000-6-3
- ► EN 61000-6-4
- ► EN 61010-1
- ► UL 6200

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List of standards is available on: https://webstore.iec.ch/