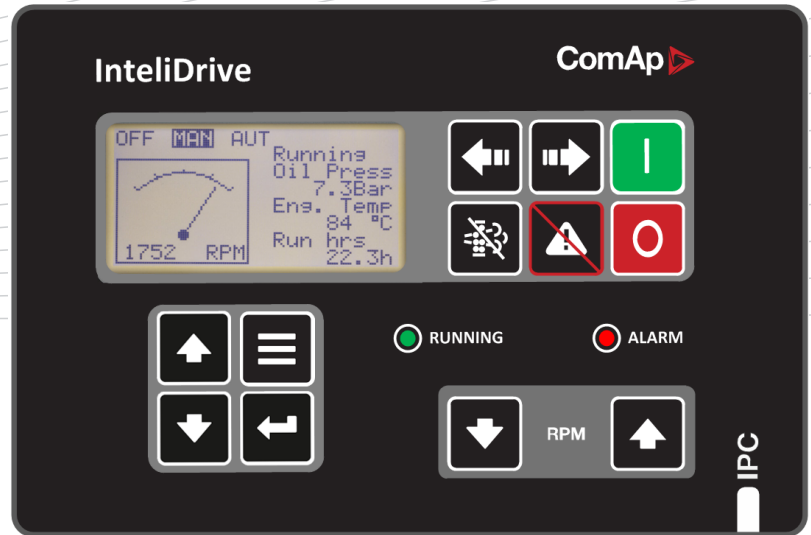


InteliDrive IPC



Order code: ID2IPCXXBAA

Irrigation Pump Controller

Datasheet

Product description

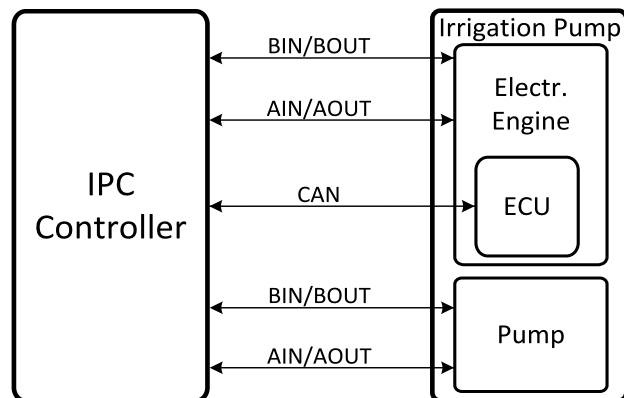
The InteliDrive IPC is a cost effective and sophisticated irrigation pump controller, which features outstanding control, monitoring and protection for both mechanical and electronic diesel/gas engines – all in one unit. The controller is designed for the specific requirements of the irrigation system, which comprises a diesel engine and pump.

Key features

- ▶ Engine and pump controller for land-based and marine Tier4 applications
- ▶ Control, monitoring and protection for both mechanical and electronic diesel/gas engines in one unit
- ▶ Automatic, manual or remote start/stop of the engine
- ▶ Support of engines with Electronic Control Unit (ECU) - J1939 or Cummins Modbus
- ▶ Analog oil pressure, water temperature, fuel level, battery voltage, engine speed (pick-up)
- ▶ Smooth engine speed control by Up/Down controller buttons, binary inputs for predefined speed options, Speed Up/Down binary inputs or one analog input
- ▶ Pump functionalities: flow meter, flow switch, set of flexible timers

- ▶ Selectable protections alarm/shutdown
- ▶ 3 levels of password protection
- ▶ Ethernet, USB, GSM/GPRS, RS485 or RS232/Modem/Modbus communication
- ▶ Automatic SMS on alarm
- ▶ On-line control and monitoring over web pages (embedded web server)
- ▶ 2 languages (user changeable)
- ▶ Real time clock and event history log
- ▶ Front panel sealed to IP65
- ▶ EN, UL certifications

Application overview



Technical data

Power supply

| | |
|-----------------------------------|----------------------------|
| Power supply range | 8 - 36 V DC |
| Power supply drop-out immunity | 100 ms (from min. 10 V) |
| Power consumption | 440 mA @ 8 V; 40 mA @ 36 V |
| Backup battery type | CR 1225 |
| Estimated backup battery lifetime | 10 years |

Operating conditions

| | |
|---------------------------------|---|
| Operating temperature | -20 .. +70 °C |
| Operating humidity | 95% non-condensing (IEC/EN 60068-2-30) |
| Protection degree (front panel) | IP65 |
| Impact protection | EN 62262, EN 50102 (IK04) |
| Vibration | 5-25 Hz, +/- 1.6 mm; 25-100 Hz, a = 4 g |
| Shocks | a _{max} 200 m/s ² |
| Storage temperature | -30 .. +80 °C |
| Heat radiation | 3.5 W |

Binary inputs

| | |
|-----------------------|--|
| Number | 5 non-isolated |
| Input resistance | 4,2 kΩ |
| Common pole | Positive, V _s = 8 - 36 V DC |
| Close/Open indication | 0 - 2 V close contact 4 V - V _s open contact |

Binary outputs

| | |
|-------------------|--------------------------|
| Number | 5 non-isolated |
| Operating voltage | 8 - 36 V DC |
| Switching to | negative supply terminal |
| Max current | 0,5 A (2 A per group) |

Analog inputs

| | |
|------------------------|--|
| Number | 6, 3 resistance and 3 voltage |
| Voltage range | 0-10 V |
| Resolution | 10 bits, 4 digits |
| Voltage accuracy | 1 %, ±100 mV |
| Precision | 4 %, ±5 Ω |
| Resistance range | 0-2k4 Ω |
| Supported sensor types | Predefined: VDO 10 Bar, VDO Temperature, VDO Fuel level User-defined: 30 points non-linear sensors can be defined by the user |

Communication

| | |
|-----|---|
| CAN | External modules 250 kbps, max 200 m Non-isolated |
|-----|---|

Magnetic pick-up

| | |
|---------------------------------|---|
| Voltage input range | 2 - 70 V _{pp} |
| Frequency input range | 4 Hz - 10 kHz (min 2 V _{pp} @ 4Hz - 4 kHz, 6 V _{pp} @ 10 kHz) |
| Frequency measurement tolerance | 0.2 % |

D+

| | |
|-------------------------|--------------------------------------|
| Excitation current | 300 mA, during the engine start only |
| Charging fail threshold | 80 % of U _{supply} |
| Voltage range | 0 - 60 V (max. 70 V) |
| Voltage accuracy | ±0.1 V |

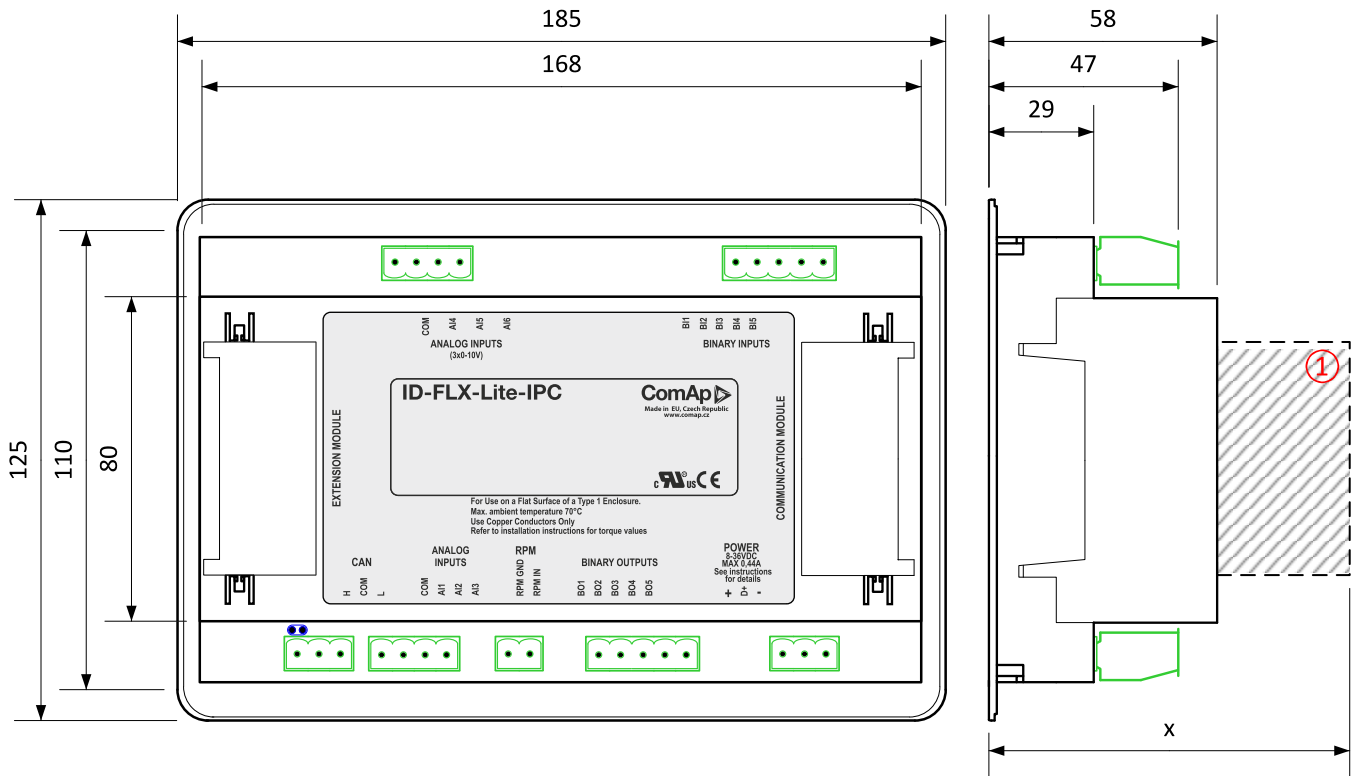
Display

| | |
|------------|------------------------|
| Type | Built-in monochromatic |
| Resolution | 128 × 64 px |

Dimensions and weight

| | |
|------------|-------------------|
| Dimensions | 180 × 120 × 55 mm |
| Weight | 450 g |

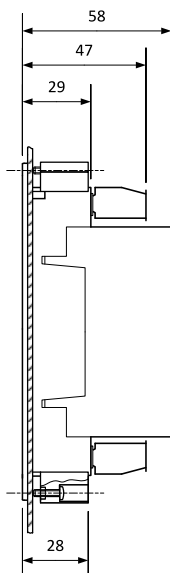
Dimensions, terminals and mounting



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: The controller is to be mounted onto the switchboard door. The requested cut-out size is 175x115 mm. Use the screw holders delivered with the controller to fix the controller into the door.

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 | IGL-RA15 |
| 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 |
| I-LB+ | Direct connection (PC) to all controllers on CAN2 | I-LB+ |
| InternetBridge-NT | Multiple Internet connections (PC and Modbus) to all controllers on CAN2 or RS485 | IB-NT |

Certificates and standards

| | |
|--|---|
| <ul style="list-style-type: none"> ▶ 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 |  |
| List of standards is available on: https://webstore.iec.ch/ | |

