

Order code: ID-FLX FPC

Engine Controller Designed for Diesel Driven Fire Pump Applications

Datasheet

Product description

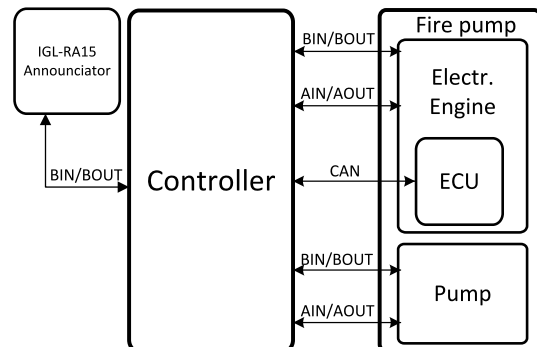
Fire Pump Controller is a comprehensive controller for single engine pump sets. The Fire Pump Controller functionality corresponds to NFPA 20 standard. Controller automatically starts, stops the engine on external signal (see Remote Start/Stop) in AUT mode or by pressing panel push buttons if there are no active or not confirmed Sd alarms active in TEST mode. Controller ignores engine protections except Emergency Stop and Overspeed protection in AUT mode.

Key features

- ▶ Support of engines equipped with Electronic Control Unit (ECU) - J1939 or Cummins Modbus interface
- ▶ Analog gauge (VDO, Datcon) outputs – operator friendly
- ▶ Engine speed control
- ▶ 3 configurable analog inputs + 2 analog inputs of battery voltage measurement
- ▶ 7 configurable binary inputs and outputs
- ▶ 6 LED indicators (Alarm, Warning, Not Ready, Running, Battery A, Battery B)
- ▶ Selectable protections alarm/shutdown
- ▶ 1 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
- ▶ 2 languages (user changeable)
- ▶ Real time clock and event history log
- ▶ Push buttons for simple control, lamp test
- ▶ Front panel sealed to IP65
- ▶ Based on the NFPA20 standards
- ▶ Comparator with hysteresis regulation

Application overview



Technical data

Dimensions and weight

Dimensions	180 × 120 × 55 mm
Weight	450 g

Power supply

Power supply range	8-36 VDC
Power consumption	0.104 A / 8 VDC
	0.080 A / 12 VDC
	0.051 A / 24 VDC
	0.044 A / 30 VDC
0.040 A / 36 VDC	
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)
Humidity	95% without condensation
Standard conformity	
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 VDC
Close/Open indication	0-2 VDC closed contact
	8-36 VDC open contact

Binary outputs

Number	7
Max current	0.5 A
Max switching voltage	36 VDC

Analog inputs

Number	9
Type	3 resistive up to 2500 Ohm, 2 voltage up to 50 V, 4 voltage up to 10 V
Resolution	10 bits
Input impedance	> 100 kΩ for V measuring
Resistance measurement tolerance	±2 % from value in range 0-2500 Ω
Voltage measurement tolerance	± 1 % ± 1 mV out of measured value

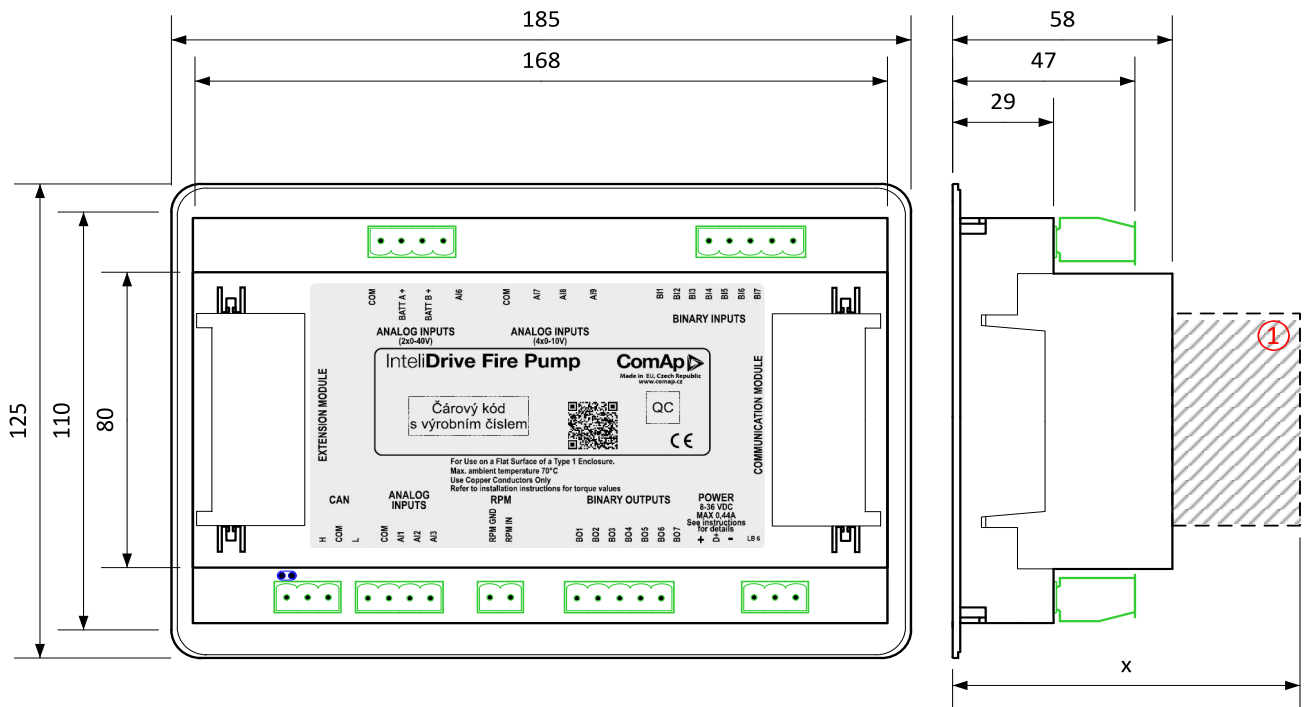
Magnetic pickup

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 6Vpk-pk)
Frequency measurement tolerance	0.2 %

Communications

CAN 1	CAN bus, 250 kbps, max 200 m, 120 Ω termination option, twisted pair (shielded)
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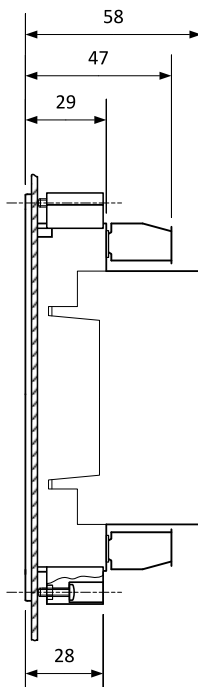
Dimensions, terminals and mounting



① Plug in module

Note: Dimension *x* depends on plug-in module

Panel door mounting



Overview of parameter *x*

Plug-in module	Parameter <i>x</i> [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: IntelliMains^{NT} GC can be mounted into panel doors as a standalone unit using provided metal holders. The cut-out for the unit should be 1mm wider than the unit on each side (i.e. cut-out dimensions 172x112mm).

Related products

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
IGL-RA15 FPC	15 LED annunciator for fire-pumps	EM2FPCRAEAA
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

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

