eManager Pro GPRS ACTIO 1072

Main features

- ✓ **High performance embedded system with Linux Yocto integrated (other on request)**
- ✓ **CPU, RAM and Flash memory ready to be the core of any Smart Project**

  ARM CORTEX-A7 800 Mhz

  512 MB DDR3 memory

  8 GB eMMC flash memory

- ✓ **GPRS, Wi-Fi and BT (optional)**
- ✓ **10 Digital inputs, 7 Analog inputs and 2 Power relays**
- ✓ **Node-RED integrated**

Description

eManager Pro GPRS ACTIO 1072 is an OEM industrial controller which is equipped with a high-performance control unit with a Linux Yocto embedded and Node-RED software integrated. The device includes RS-232/485 serial communications, an Ethernet 10/100 port, a Wi-Fi interface and GPRS communications. eManager Pro GPRS ACTIO 1072 GPRS has been designed for the most challenging monitoring and control applications, where datalogging and storage is required. In addition, eManager Pro GPRS ACTIO 1072 is equipped with 10 digital inputs, 7 analog inputs 0...20mA/4...20mA/0...10V and 2 relays of 6A.
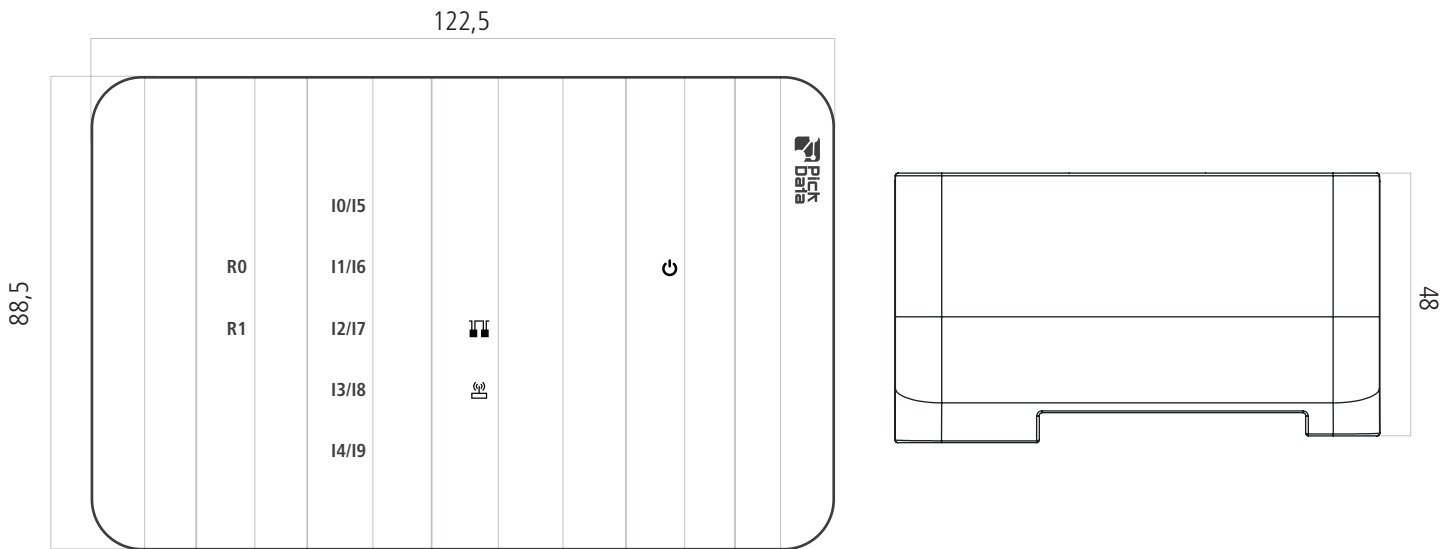
10 Digital inputs

- ✓ Configurable as dry contact (w/o internal tension) or wet contact (with internal tension)
- ✓ Inputs activation via external 0-24 VDC signal or internal ±12 VDC power supply (for PNP or NPN sensors)
- ✓ Working modes: input, pulse counter and pulse width time counter. Pulse capturing up to 1 ms
- ✓ Pulse capturing up to 1 ms
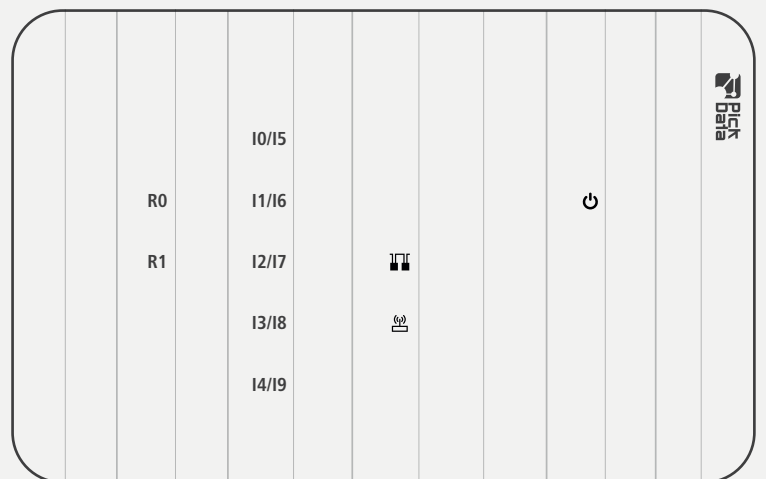
7 Analog inputs and 2 Power relays

- ✓ Analog inputs with 4096 points of resolution
- ✓ Configurable as 0...10 V / 0...20 mA or 4...20 mA
- ✓ Maximum activation current of the relays of 6A
- ✓ Combine actuation with monitoring in the same module

Dimensions

LEDs
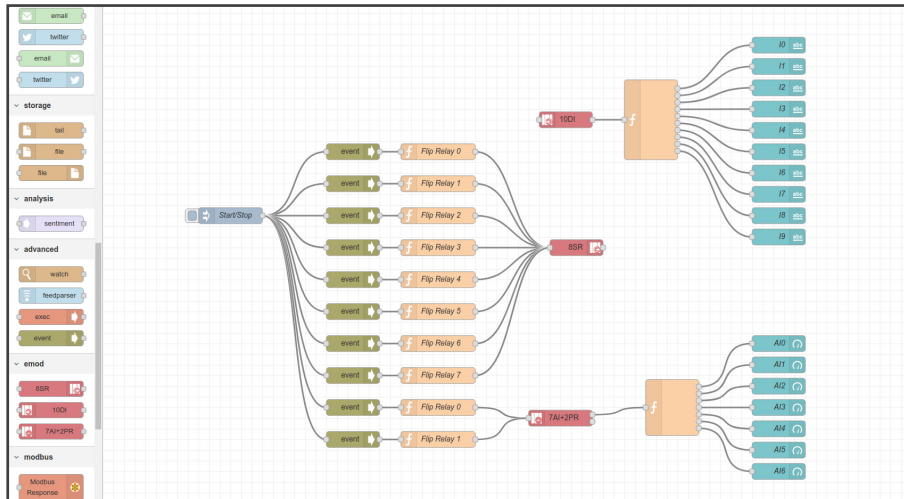
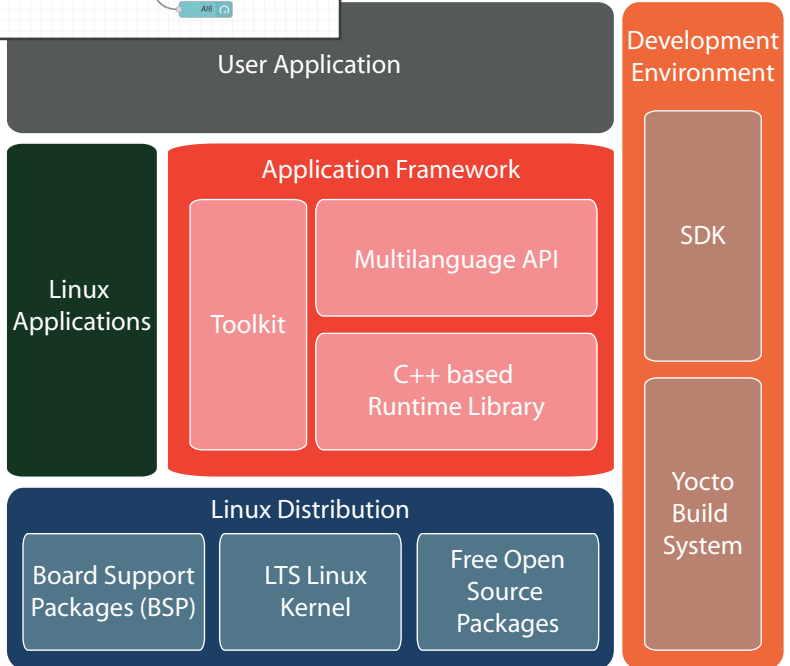| LED	Name	Description
⏻	Power	Powered: Green
🔀	RS-232/485	Data transmission: Blue Data reception: Green
📶	Modem	Connected with good signal: Static green Connected with weak signal: Blinking green Searching for connection / Without connection : Blinking red Modem service stopped: Blinking blue
I0/I5	Input 0/5	Input 0 activated: Blue Input 5 activated: Green Inputs 0 and 5 activated: White
I1/I6	Input 1/6	Input 1 activated: Blue Input 6 activated: Green Inputs 1 and 6 activated: White
I2/I7	Input 2/7	Input 2 activated: Blue Input 7 activated: Green Inputs 2 and 7 activated: White
I3/I8	Input 3/8	Input 3 activated: Blue Input 8 activated: Green Inputs 3 and 8 activated: White
I4/I9	Input 4/9	Input 4 activated: Blue Input 9 activated: Green Inputs 4 and 9 activated: White
R0	Relay 0	Activated: Blue No activated: None
R1	Relay 1	Activated: Blue No activated: None

Technical features

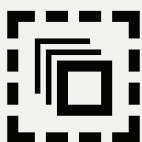| Category	Parameters	Value
Power circuit	Power supply	85 … 264 Vac / 120 … 300 Vdc
	Frecuency	47 … 63Hz
	Consumption (a.c. / d.c.)	8,8 ... 10,5 VA / 6,4 ... 6,5 W
Control unit	CPU	ARM Cortex-A7 800 Mhz
	RAM Memory	512 MB DDR3
	Flash Memory	8 GB eMMC
	Clock	RTC with supercap to backup clock time
Environmental conditions	Operating temperature	-20 … +50 ºC
	Relative humidity	5 … 95 %
	Maximum working altitude	2000 m
Mechanical characteristics	Enclosure material	UL94 polycarbonate - Self-extinguishing V0
	Protection grade	IP20 (assembled)
	Dimensions (Width x High x Length)	122,5 x 88,5 x 48 mm (7 DIN rail modules)
	Weight	180 g
	Mounting	DIN rail 46277 (EN 50022)
	Connectors	Pluggable terminals, max. wire section 1,5 mm²
Electrical and safety features	Electric shock protection	Double-insulated class II
	Insulation	3 kVac
	Installation category	CAT III 300 V
Wireless interface	Wi-Fi	802.11 b/g/n (2.4 GHz)
	BT (optional)	4.2
Radio interface	Type	Quad-band GSM/GPRS
	Frequency bands	850 / 900 / 1800 / 1900 MHz
	Antenna	External
	Connector	SMA
Serial interface	Type	RS-232 (full-duplex) / RS-485 (half-duplex). Galvanic isolation
	Baud rate	9600...115200 bps
Network interface	Type	Ethernet
	Working speed	10/100 Mbps
Digital inputs	Type, number and voltage	10 digital inputs 0-24 Vdc
	Minimum voltage and current	0 Vdc / 160 µA
	Maximum voltage and current	30 Vdc / 12 mA
	Input sensitivity	0-7 Vdc : 0; 8-30 Vdc : 1
	Minimum pulse duration	1 ms
	Counters	10 counters of 32 bits / Freq. max 250 Hz
Voltage output	Voltage output	±12 VCC
	Maximum output power	1 W
Analogue inputs	Number, type and range	7 analog inputs 0...10 V / 0...20 mA or 4...20 mA
	Transducer resolution	12 bits (4096 points)
Relay outputs	Type	NO
	Max. operating parameters	6 A, 250 VCA, cos=1, 70°C
Standards	Standards	UNE EN 61010-1, UNE-EN 61000-6-2, UNE-EN 61000-6-4

Software platform

Node-RED Integrated

Linux environment and Multilanguage API

User Application

Development Environment

Linux Applications

Application Framework

Toolkit

Multilanguage API

C++ based Runtime Library

SDK

Yocto Build System

Linux Distribution

Board Support Packages (BSP)

LTS Linux Kernel

Free Open Source Packages

Description

eManager Pro GPRS ACTIO 1072 is equipped with a software platform designed for easily developing industrial and edge computing applications. With eManager Pro GPRS ACTIO 1072 you can smoothly develop your application with our multilanguage API which include the most popular programming language for IoT applications (C, C++, Python, Go, Java...). In addition, eManager Pro GPRS ACTIO 1072 fully integrates Node-RED which includes protocols such as Modbus, BACNET, MQTT, OPC-UA, together with easy communication with platforms like Amazon WBS, Microsoft Azure, Google Cloud and more.

Main features

IoT open software tools

Multilanguage API

Public protocols libraries