



Controller and hardware Gateway for electric boards with 16 I/O and different communication interfaces. Data Exchange using MQTT or HTTP.

## TECHNICAL SPECIFICATIONS

<b>CPU</b>	MIPS microcontroller 32bits@64MHz with 512Kb Flash, 128Kb RAM
<b>Memoria</b>	Dataflash of 4Mb for data storage (2Mb available to the user) EEPROM of 128KB for configuration data
<b>Real time clock</b>	External with a battery
<b>ADC</b>	ADC 14 bits multiplexed to the 16 I/O
<b>Watchdog timer (WDT)</b>	Internal Watchdog available. External Watchdog by use of a IPexCHD
<b>Device configuration</b>	Basic configuration available by use of an embedded web server
<b>Firmware updates</b>	Remote firmware updates
<b>LED indicators</b>	3 status LEDs (System supply, Ethernet and System active)
<b>Communication protocols</b>	MQTT or HTTP through REST API

## I/O AND COMMUNICATIONS PORTS

<b>I/O</b>	16 I/O configurable through software such as: digital outputs, digital inputs (end of line checking available), analog inputs (through voltage or current) and analog outputs (range 0-10V) Range of analog inputs configurable through software such as: 0-500mV, 0-1V, 0-1.25V, 0-2.5V, 0-5V, 0-10V, 0-20mA y 4-20mA
<b>Additional I/O</b>	Possibility of increasing the amount of I/O through the slave device IPex16/s up to 8 additional increases (128 additional I/O)
<b>Communications ports</b>	3 x RS-232 1 x RS-485 1 CAN Bus 2.0B 1 USB Host 2.0 1 Ethernet 10/100Mbps
<b>Puertos de comunicaciones adicionales</b>	GPRS/NB-IoT Network (with the IPex3G device) RF 802.15.4g (with the IPexRF device)
<b>Calibration of analog inputs</b>	All of the analog inputs can be calibrated by use of the embedded web server configuration
<b>Protection of the I/O</b>	The 16 I/O are protected against incorrect wiring with the configuration of the I/O and the following restrictions:

Max. supply in I/O: Supply voltage (12-24VDC)  
Max. output current: 100mA

## SUPPLY CIRCUIT

<b>Supply voltage</b>	12V
<b>Maximum consumption</b>	<1,6W

### Alternative supply systems

For systems that need a continuous supply, a 6/12 V battery can be included that is controlled by the charger device IPexCHD

## ENVIRONMENTAL CONDITIONS

<b>Working temperature</b>	-25° ~ 85°C
<b>Humidity</b>	5% ~ 95% (without condensation)
<b>Degree of protection</b>	IP20

## INFORMATION ABOUT ORDERS

<b>Minimum order</b>	1
<b>Order reference</b>	IPex16/M (master) IPex16/S (slave)
<b>Accessories:</b>	IPexCHD, IPex3g, IPexRF

## CONSTRUCTION FEATURES

<b>Dimensions</b>	160x90x58mm (W/H/D)
<b>Box material</b>	Plastic
<b>Installation type</b>	DIN Rail

## CERTIFICATES AND DECLARATIONS

<b>Rules</b>	EN 61000-6-2:2005 EN 61000-6-3:2007 + A1:2011
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This product is compatible with the RoHS (2011/65/UE)