

Intelligent Remote I/O

The IRIO is an Intelligent Remote I/O unit that can drive proportional valves and receive field signals, designed for industrial applications. The IRIO device has 16 output channels, receive up to 10 analog inputs and up to 8 digital inputs. IRIO uses ProfiNet bus as an interface with the field devices

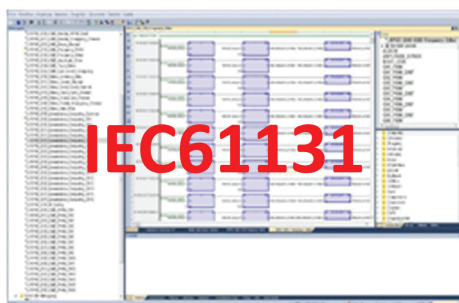
It consists of:

- CPU board mounting Xilinx Zynq® SoC core with Ethernet interface
- Two output boards each one capable of driving 8 outputs channel
- One input board with 8 digital input channels and 10 analog input channels, galvanically isolated between each other.
- LED display for every in/out channel, and system diagnostic

IRIO main tasks are:

- Control up to 16 output channels, configurable as steady frequency or PWM
- Read up to 8 digital inputs from intrinsically safe field sensors
- Read up to 10 analog inputs from intrinsically safe field sensor
- Transmit the acquired signals to a PLC using Fieldbus (ProfiNet)
- Receive commands from PLC to activate the outputs or advanced functions
- Execute local pre-programmed functions

Other custom functions can be implemented in internal FPGA exploiting the Xilinx Zynq® core



IEC61131

ENVIRONMENTAL

- Nominal power supply: 24 Vdc \pm 10%
- Operating temperature: -40° +65°C
- Dimensions: 230x165x80 mm

SYSTEM FEATURES

- Output current: 2,5 A max @ 24 Vdc for each output
- PWM output frequency: 10 Hz÷2kHz with 10 Hz steps
- Ramp up/down: from 0 s to 10 s
- Dither : from 0 Hz to 120 Hz
- Isolated Analog inputs : 4...20ma / 0...10V / \pm 10V
- Isolated digital inputs : 24 Vdc, Namur sensors
- Microprocessor Xilinx Zynq® dual core ARM Cortex A9 + internal FPGA
- 512 MB DDR3L
- SD card Flash Memory up to 4GB

STANDARD CONNECTIVITY

- 1 Ethernet 10/100 Base-T M12 D-Code
- 1 MVB bus full redundant EMD (ESD and OGF available on request) class up to 4

OPTIONAL CONNECTIVITY

- 2 Ethernet port 10/100/1000
- ProfiNet fieldbus communication stack