

IO Module

TECHNICAL DATA SHEET

The IO Module provides Reliable, Real time and industrial standard Input and output logic control using a ARM Cortex-M0 32-bit Microcontroller. STM32 IO board assembled TFT interface to display the debug data and I/O status. This Module has proven a wide range of customer applications. This is ideal for all users as they can easily understand how the software and hardware operates and adopt the design to meet their end designs requirements and ideal for interfacing to many different types of sensors and actuators.

This is used to drive a high voltage and/or current drives from a MCU or logic device that is switching inductive loads includes Motors, Solenoids, Sensors, and Relays. This IO module is used for several applications requiring digital control or monitoring such as in test equipment, instrumentation, industrial automation, and process control.

Specifications:

S.No	Description	Specifications
1	I/P Supply Voltage	12V DC
2	STM32 MCU	ARM CORTEX-M0 CPU with 48 MHz operating Frequency with 256 KB program Memory and 32KB RAM
3	Interfaces	UART-TTL(3.3V),RS-485 and RS-232
4	Memory	I2C EEPROM(256kb or 512 kb)
5	Flash Memory Interface	SPI Interface -1MB flash memory (Flash Memory Configurable)
6	Supported external drives	Motors, Relays, solenoids and sensors.
7	Analog I/O	Two ADC I/P's
8	PCB Dimensions	250x300
9	Surge Protection Level	ESD $\pm 15\text{kV}$ (Air), $\pm 8\text{kV}$ (Contact)
10	GPIO's	24 Optically Isolated Inputs & 24 Optically Isolated Outputs

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Features:

- Optically Isolated IO's.
- All IO's are drives through Buffer.
- TFT Interface to display the IO status information.
- Each IO Drives up to 500mA
- Surge Protection using transient voltage suppressors up to 15KV
- 4x4 Keypad Interface

Applications:

- Process Monitoring
- Machine Control
- Monitoring and Control
- Security Systems, Energy Management
- Manufacturing/Production Test
- Industrial Automation
- Factory Automation
- Laboratory Automation, etc...

