

Digital Input and Output Module

The DIGIO-01 is an universal peripheral that adds digital input and high power output capabilities to a personal computer or other data terminals (DTE). The DIGIO-01 contains state of the art electronic circuitry including a powerful microprocessor. Its low cost, rugged construction and flexibility make it ideal for a variety of applications in industry, education and home.

Built-in networking capabilities allow to connect a chain of up to 15 DIGIO-01's to a single computer's RS232 port. Full interoperability to other module types (e.g. ADIO-01) is guaranteed.

Product highlights:

- interfaces to a PC or Macintosh computer via standard serial port (no additional hardware has to be installed into the computer)
- 16 galvanically isolated logic inputs
- large input signal range: 4.5V to 35V
- inputs are protected against overvoltages
- 16 fully isolated relay outputs (250V / 8 Amps)
- comfortable 2-component connectors on all inputs and outputs
- power supply range: 11..28Volts DC (unregulated)
- large number of optional accessories are available
- software operating programs for Windows95/98 and Macintosh are available, as well as drivers for LabView™ (and other "scada" programs on request)
- alternatively, it is possible to control the instrument by means of a standard terminal emulation program (such as HyperTerminal or others)

Ordering information:

Item	Ordering Code
DIGIO-01 Module	DIGIO-01C
External power supply (fits 1 or more DIGIO's)	DIGIO-PS
User program for Macintosh/Power Macintosh	GU-SWMAC
User program for PC (Windows95/98)	GU-SWWIN
Serial cable Macintosh - DIGIO-01	CO1-MAC
Serial cable PC - DIGIO-01	CO1-PC
Inter-module daisy-chain cable	CO2-NET
LabView™ driver for Macintosh/Power Macintosh	LV-SWMAC
LabView™ driver for Windows95/98	LV-SWWIN
C++ source libraries (PC and Mac)	CPP-SW

For your orders please contact:

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Electrical characteristics:

Characteristic	Symbol	
Supply:		
Power supply range	V _{cc}	11 to 28 VDC
supply current when all outputs are off	I _{cc} (V _{cc} =24V)	25 mA typ
supply current when all outputs are on	I _{cc} (V _{cc} =24V)	300 mA max
Logic inputs		
Active input voltage range	V _{in}	4.5 to 35 V *)
Input current (V _{in} = 5 Volt)	I _{in}	
Unipolar inputs (positive)		yes
Bipolar inputs (positive and negative)		optional **)
Input protection circuits		yes
Max input sampling frequency †)	F _{sample}	
Relay outputs		
power rating for each channel		250VAC, 8A
function (each)		SPST
Serial communication		
RS 232 protocol parameters		9600,n,8,1
Other protocols		contact factory
Dimensions		
w x d x h		235x165x60 mm

*) Inputs are protected against temporary overvoltages (above 35 Volt)

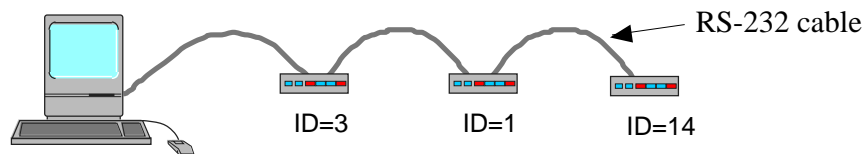
***)Contact factory

†) With all inputs being used

Networking capabilities

The DIGIO-01 has a particular communication protocol over the RS232 link, which enables up to 15 DIGIO-01's to be chained (i.e. connected in a "daisy chain" manner) together, each one being separately addressable by the personal computer.

Each DIGIO-01 is configured to have a different Address ID, by means of a rotary switch on the back panel.



Each DIGIO-01 acts as a repeater (with zero delay!) for the downlink modules. This insures a reliable and interference free communication.

In addition, it is possible to mix other of our products into the same chain: for instance, a chain can be composed of 5 ADIO-01 and 8 DIGIO-01 (all are separately addressable by the computer).

Inside the DIGIO-01, a hardware expansion bay can accomodate adapters for other protocols. Actually, we are planning the following interfaces: LON, RS485, USB, CAN (and others on request).

Software Plug-Ins

An internal non-volatile memory of the DIGIO-01 can hold optional or custom software functions. These "plug-ins" can be automatically downloaded from your personal computer to the DIGIO-01. Please contact us if you need any special software function.