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Find the *Pickering 20-410-041* at our website: ***Click HERE***

20-210A/410
Breadboard and Digital Input/Output Module

- Up to 128-Bits of Digital Input and Output in One Module
- Large Breadboard Area For Construction of Prototype Circuits (20-210A)
- TTL Compatible Digital Inputs
- Choice of TTL or Open-Collector Digital Outputs
- Open-Collector Outputs Suitable For Driving Relay Coils.
- Programmable by Bit Byte or Word
- Front Panel Status Indicators
- Built-in Self Test



20-410 Digital Input/Output Module

The 20-210A and 20-410 Digital Input/Output Modules offer a choice of port configurations up to a maximum of 128-bits. Modules can be specified as all inputs, all outputs or a combination of both.

All inputs are compatible with TTL voltage levels and are suitable for receiving signals from logic circuits or sensors with TTL level outputs. Outputs can be specified as either TTL, suitable for driving standard logic, or Open-Collector, for driving higher current loads such as relay coils. The Open-Collector option can tolerate up to 50V and sink up to 500mA of current.

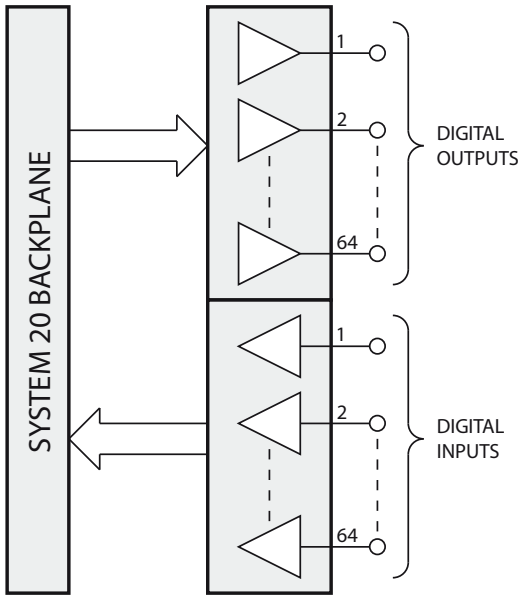


Diagram for the 20-410-041 Digital Input/Output Module With 64-Bits of I/O

In addition to digital input and output ports, the 20-210A variant includes a large breadboard area. This allows the user to construct their own circuits where an appropriate module may not be available. For example, when it is required to integrate a non-switching function into a System 20 chassis.

The module is programmed by writing and reading data at bit, byte or word level, this simplifies the interfacing operation. Applications include; generating control signals, stimulus and sensing status from digital devices.

Typical Applications

- Construction of special one-off circuits
- Programmable amplifiers
- Programmable attenuators
- Programmable filters
- Special circuits to drive external relays
- Mounting special relay types
- Dummy multiplexer channels for calibration purposes

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20-210A Digital Input/Output Breadboard Module

Specification - TTL Output Drivers

Maximum drive capability:	15 TTL inputs.
Current drive Sink:	10mA max
Current Source:	0.4mA max
Max Voltage:	7V
Total Operate/Release Time:	7ms

Specification - Open-Collector Transistor Drivers

Maximum Standoff Voltage:	50V
Power per O/P:	1.0W max
Power per byte:	1.6W max
Current Drive:	500mA max.
Total Operate/Release Time:	7ms

Specification - Digital Inputs

Maximum Standoff Voltage:	7V
Input Current:	Iih = 20mA, Iil = -0.4mA
Pull up resistor:	10kΩ pulled up to 5V
Nominal True voltage:	>2.0V
Nominal false voltage:	<0.8V

Programming

The module uses a standard IEEE-488.2/RS-232 message based interface and is programmed via the System 20 backplane. The I/O ports are programmable by bit, byte or word.

Self Test

The module has a built in self-test that is executed at power on or invoked by a software command. The test checks internal logic, checks power supply levels and tests the output drivers. The result of the test is indicated on the front panel LEDs.

Width and Dimensions

All modules conform to the 6U height (128mm) Eurocard standard and are 160mm deep. Panel width for all versions is 2.4 Inches.

Connectors

System 20 bus:	64-way DIN 41612 plug
Digital input/output:	2 x 96-way ZIF connectors on front panel (20-210A) 2 x 64-way DIN 41612 plugs on front panel (20-410)

Note: Alternative connectors are available to order, please contact the sales office for details.

Product Order Codes

Breadboard Module With Digital Input/Output (2 x 96-Way ZIF Front Panel Connectors)	
2 x 16-Bit Input/Output	**20-210A-021**
2 x 16-Bit Input/Output - Open-Collector	**20-210A-021-O**
2 x 32-Bit Input/Output	**20-210A-022**
2 x 32-Bit Input/Output - Open-Collector	**20-210A-022-O**
2 x 32-Bit Input	**20-210A-023**
4 x 16-Bit Input/Output	**20-210A-041**
4 x 16-Bit Input/Output - Open-Collector	**20-210A-041-O**
4 x 32-Bit Output	**20-210A-042**
4 x 32-Bit Output - Open-Collector	**20-210A-042-O**
4 x 32-Bit Input	**20-210A-043**
Digital Input/Output Module (2 x DIN 41612 Front Panel Connectors)	
32-Bit Input/Output	**20-410-021**
32-Bit Input/Output - Open-Collector	**20-410-021-O**
64-Bit Output	**20-410-022**
64-Bit Output - Open-Collector	**20-410-022-O**
64-Bit Input	**20-410-023**
64-Bit Input/Output	**20-410-041**
64-Bit Input/Output - Open-Collector	**20-410-041-O**
128-Bit Output	**20-410-042**
128-Bit Output - Open-Collector	**20-410-042-O**
128-Bit Input	**20-410-043**

Mating Connectors

DIN 41612 Connector Crimp Pin	**10-967-001**
DIN 41612 Connector IDC Socket	**10-967-101**
96-way ZIF Connector	**10-964A-001**
ZIF Connector Pins, 100 off	**10-964A-801**

Latest Details

Please refer to our Web Site for Latest Product Details.

www.pickeringtest.com

Operating/Storage Conditions

Operating Conditions

Operating Temperature:	0°C to 55°C
Humidity:	Up to 95% non-condensing
Altitude:	5000m

Storage and Transport Conditions

Storage Temperature:	-20°C to +75°C
Humidity:	Up to 95% non-condensing
Altitude:	15000m

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