ArmorBlock 1732 I/O

The self-configuring modules (1732D-8CFGM8 and -8CFGM12) contain both input and output I/O functionality. If an I/O point is to be an output, dedicate that point as an output with a wired load and energize it through a control program. Energized outputs will show an associated active input, which can be used as a feedback mechanism to ensure that the output is turned on.

If an I/O point is to be an input, wire the input device as normal and leave the associated output un-energized at all times.

General ArmorBlock 1732 I/O Specifications

Enclosure Type Rating	**IP65, IP66, IP67**
Mounting Type	On-Machine or Panel
Operating Temperature	-20…60 °C (-4…140 °F)
Storage Temperature	-45…85 °C (-49…185 °F)
Relative Humidity	5…95% non-condensing
Shock, Operating	30 g peak acceleration, 11(±1) ms pulse width
Shock, Non-Operating	50 g peak acceleration, 11(±1) ms pulse width
Vibration	Tested 5 g @ 10…500 Hz per IEC 68-2-6
Certifications✶	CSA, CE, C-Tick, DeviceNet

✶When product is marked. See the Product Certification link at www.ab.com for declarations of Conformity, Certificates, and other certification details.

Digital I/O Blocks

ArmorBlock Digital Input Blocks

Cat. No.	Number of Inputs	Voltage, On-State Input, Nom.	Voltage, On-State Input, Range	Input Delay Time, ON to OFF and OFF to ON	Current, Off-State Input, Max.	Network Adapter	Network Current Load (mA)	Termination Type
1732D-IB8M8	8 Sink	24V dc	11V dc…30V dc	0…16000 µs	1.5 mA	DeviceNet	100 mA	M8 Quick-Disconnect
1732P-IB8M8	8 Sink					PROFIBUS DP	—	M8 Quick-Disconnect
1732D-IB8M12	8 Sink					DeviceNet	100 mA	M12 Quick-Disconnect
1732P-IB8M12	8 Sink					PROFIBUS DP	—	M12 Quick-Disconnect

ArmorBlock Digital Output Blocks

Cat. No.	Number of Outputs	Voltage, On-State Output, Nom.	Voltage, On-State Output, Range	Current, On-State Output, Max.	Network Adapter	Network Current Load (mA)	Termination Type
1732D-OB8EM8	8 Source	24V dc	11V dc…30V dc	0.5 A	DeviceNet	100 mA	M8 Quick-Disconnect
1732P-OB8EM8	8 Source				PROFIBUS DP	—	M8 Quick-Disconnect
1732D-OB8EM12	8 Source				DeviceNet	100 mA	M12 Quick-Disconnect
1732P-OB8EM12	8 Source				PROFIBUS DP	—	M12 Quick-Disconnect

ArmorBlock Digital Configurable I/O Blocks

ArmorBlock self-configuring I/O modules contain both input and output I/O functionality. Each module provides a total of eight points in any combination of 24V dc sink inputs or 24V dc source outputs.

		Inputs			Outputs				
Cat. No.	Number of Inputs/ Outputs✶	Voltage, On-State Input, Range	Input Delay Time, ON to OFF and OFF to ON	Current, Off-State Input, Max.	Voltage, On-State Output, Range	Current, On-State Output, Max.	Network Adapter	Network Current Load (mA)	Termination Type
1732D-8CFGM8	8 self-configuring	11V dc…30V dc	2 ms	1.5 mA	11V dc…30V dc	0.5 A	DeviceNet	100 mA	M8 Quick-Disconnect
1732P-8CFGM8	8 self-configuring						PROFIBUS DP	—	M8 Quick-Disconnect
1732D-8CFGM12	8 self-configuring						DeviceNet	100 mA	M12 Quick-Disconnect
1732P-8CFGM12	8 self-configuring						PROFIBUS DP	—	M12 Quick-Disconnect

✶Up to eight I/O points per module in any combination: inputs only, outputs only, or a mix of inputs and outputs.

DeviceNet Power Supply Requirements

ArmorBlock I/O Requirements

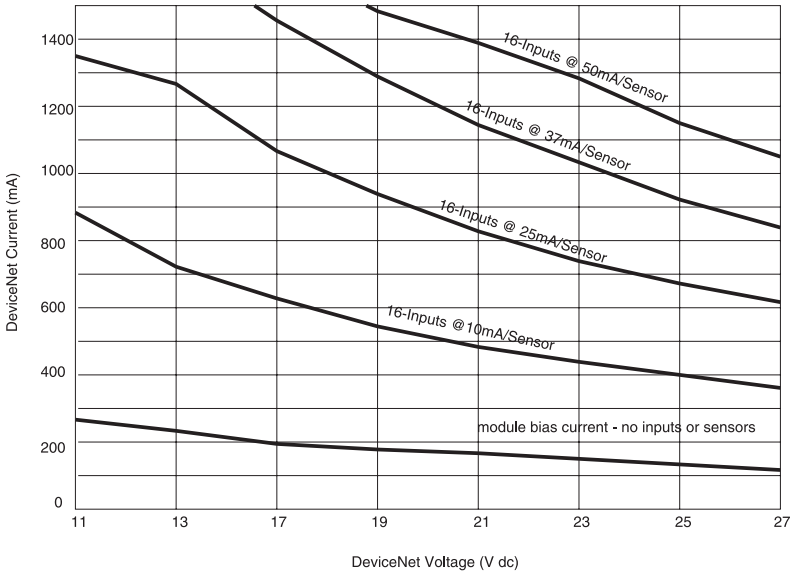
The 1732 ArmorBlock I/O only draws 100 mA from DeviceNet power. Inputs and outputs are both powered from auxiliary power. See page 13.

ArmorBlock MaXum I/O Requirements

The DeviceNet network supplies power to the 1792D ArmorBlock system as well as to sensors. Outputs are powered by an external 24V dc source which is independent of the network.

Remember when planning your network that adding more sensors and blocks will draw a greater current from the DeviceNet network. Make sure that the added sensors and blocks do not draw more current than your power budget allows. The following charts describe the current draw created by installing MaXum modules.

16 Input MaXum Power Requirements for DeviceNet



ArmorBlock MaXum Using DeviceNet Power for Outputs

In some applications where low-power actuators are used, DeviceNet power can be used to power those outputs. The 1792D-CB18JP and -CB12JP MaXum bases provide this capability.

- The 1792D-CB18JP takes power from the thick DeviceNet trunk and applies it to any outputs that exist on the block.
- The 1792D-CB12JP takes power from a DeviceNet drop cable (flat or round media) and applies it to the outputs.

When using these bases for power, be sure that a problem with an output device will not lead to a network failure.

1732 ArmorBlock I/O Auxiliary Power

In 1732 ArmorBlock I/O, inputs and outputs are powered solely from the auxiliary power connector. DeviceNet power is used only for the electronics of the block itself and consumes only 100 mA from network power.

Due to the M12 pin size, 24V dc is brought in on pins 1 and 2 while ground is on pins 3 and 4. This permits 4 A to be brought into the block.

Both inputs and outputs are powered from this same connector. In the self-configuring versions, if you turn off the outputs for E-Stop you will also turn off the power to the inputs. If you need to control power to the outputs in the self-configuring versions, only use the output-only blocks.