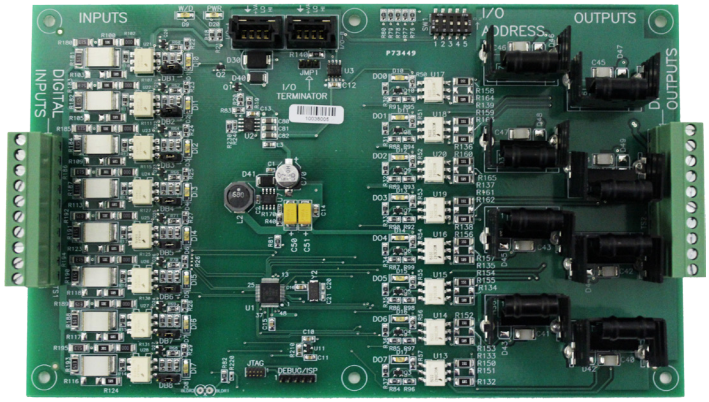
P-SERIES BEAR BONES

Digital I/O Expansion

- AC / DC I/O Models
- 8 Digital Inputs - Isolated
- 8 Digital Outputs - Isolated
- Expandable Digital I/O - Daisy Chain
- Addressable
- Visual Status Indicators (LED)
- Quick Disconnect Field Connections
- Logic Powered from Controller
- Uses OptiCAN Protocol
- -40°C to 80°C Operating Temperature



P-Series Bear Bones Digital I/O Expander

The plug-in P-Series Bear Bones I/O Expanders allow for digital I/O expansion of P-Series Bear Bones Controllers (and other Divelbiss PLCs/Controllers). Each I/O Expander provides another 8 digital inputs and 8 digital outputs and are available with AC or DC I/O. Up to 31 I/O Expanders may be connected and addressed to one controller.

The P-Series Bear Bones Digital I/O Expanders footprint is identical to the original Bear Bones I/O Expander's footprint making the P-Series Bear Bones Digital I/O Expander a mechanical drop-in replacement. Being mechanically the same, the P-Series Bear Bones Controller and I/O Expander allow for powerful and easy hardware upgrades to equipment using the original Bear Bones.

I/O Port - I/O Communications / I/O Expansion:

The P-Series Bear Bones Digital I/O Expander's CAN Ports support Divelbiss OptiCAN. Divelbiss OptiCAN is a proprietary register based CAN network that allows controllers, I/O modules and HMI devices to communicate to each other. OptiCAN utilizes the on-board CAN network port (I/OA, I/OB) on the P-Series Bear Bones I/O Expanders.

The P-Series Bear Bones Digital I/O Expander I/O status and control registers in OptiCAN are pre-assigned and need only be accessed by any OptiCAN controller.

The CAN Network Ports (I/OA, I/OB) is the OptiCAN port for all P-Series Bear Bones I/O Expanders. These connection ports connect directly to the P-Series Bear Bones I/O port using the provided cable. Up to 31 P-Series Bear Bones Digital I/O Expanders can be connected to a single P-Series Bear Bones Controller (or other OptiCAN enabled PLC/controller) by the daisy chaining method of plugging the first expander into the controller and each subsequent I/O expander into the previous I/O expander.

Digital Inputs:

There are 8 digital inputs standard on the P-Series Bear Bones Digital I/O Expanders. All inputs will operate from 8-32VDC or 90-130VAC (model dependent) and are divided into 2 groups of 4 inputs. All inputs support sinking and sourcing per input group based on wiring configuration. The digital inputs are accessed in the ladder program by the use of contacts and boolean variables.

Digital Outputs:

There are 8 digital outputs standard on the P-Series Bear Bones Digital I/O Expanders. All outputs will operate from 8-32VDC and can sink or source (AC Models) or sink (DC Models) up to 2 Amps each. These 8 digital outputs are divided into 2 groups of 4. Each group of 4 outputs may be wired individually as sinking or sourcing. All the digital outputs operate as digital outputs (Off / On operation).

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P-SERIES BEAR BONES
Digital I/O Expansion

Models:

MODEL	DESCRIPTION
ICM-IO-C21	P-Series Bear Bones I/O Expander with 8-32VDC I/O
ICM-IO-C24	P-Series Bear Bones I/O Expander with 90-130VAC I/O

Specifications:

P-Series Bear Bones Digital I/O Expanders		
	ICM-IO-C24	ICM-IO-C21
CAN Ports	1 Port, 4 Pin 3M Link (Used for I/O Expanders)	1 Port, 4 Pin 3M Link (Used for I/O Expanders)
Networking	OptiCAN (CAN)	OptiCAN (CAN)
Digital Inputs	Qty 8. 8-32VDC, Sink/Source in groups of four. Optically Isolated	Qty 8. 90-130VAC, Sink/Source in groups of 4 Optically Isolated
Digital Outputs	Qty 8. 8-32VDC, Sink in groups of four. 2 Amps per point. Optically Isolated.	Qty 8. 90-130VAC, Sink/Source in groups of four. 2 Amps per point. Optically Isolated.
LED Indicators	Input (8), Output (8), Power, Watchdog	Input (8), Output (8), Power, Watchdog
Input Power	8-32VDC / 13mA @ 24VDC Input from Controller (no loads). Supplied by I/O cable.	8-32VDC / 13mA @ 24VDC Input from Controller (no loads). Supplied by I/O cable.
Expandable	I/OA, I/OB Accepts additional P-Series Bear Bones Digital I/O Expanders via Daisy Chain method	I/OA, I/OB Accepts additional P-Series Bear Bones Digital I/O Expanders via Daisy Chain method
Operating Temperature	-40°C to +80°C	-40°C to +80°C
Programming Language	Pre-Programmed and Assigned OptiCAN registers - no programming required on I/O Expander	Pre-Programmed and Assigned OptiCAN registers - no programming required on I/O Expander
Mounting	Standoffs and screws.	Standoffs and screws.
Size	9.0” x 5.4” x 1.5”	9.0” x 5.4” x 1.5”