Digital Input Module

Product Specification and Installation Data

Description

32 Points – Four isolated groups of 8 points each

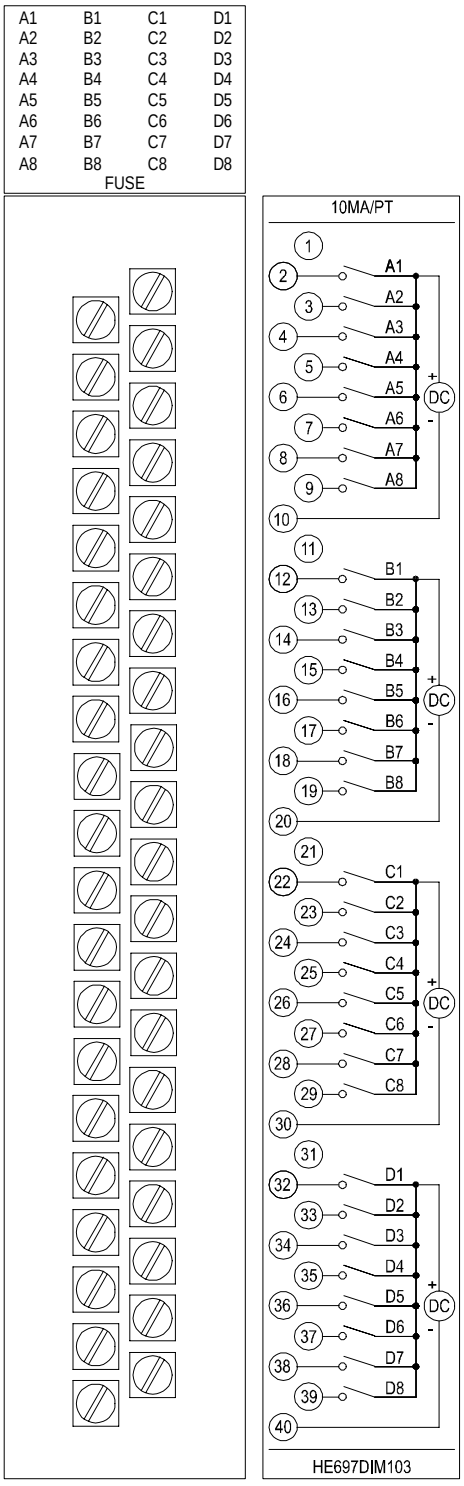
- Positive Logic Compatibility
- Proximity switch compatibility
- Input filter selectable – 1mS or 10mS
- One input configurable as interrupt
- **Configures as an IC697MDL653**

The HE697DIM103 is a 21 Volts to 30 Volts DC Positive Logic Input module that provides 32 input points in four isolated groups of eight points each. The input current – voltage characteristics meet IEC standard (type 1) specifications.

LED indicators which give the ON-OFF status of each point on the logic (PLC) side of the circuit are included at the top of the module.

The module is mechanically keyed to ensure correct replacement with a similar type in the field. I/O references are user configurable without the use of jumpers or DIP switches on the module. Configuration is done with the IC641 Programming Software configurator function installed on the programming device. The programming device can be an IC647 or IC640 industrial computer, an IBM PS/2, XT, AT, or compatible personal computer.

SPECIFICATION	HE697DIM103
Rated Voltage:	21Volts to 30 Volts DC
Number of Inputs:	32 (four groups of eight inputs each)
Isolation:	1500 Volts – any input to backplane 500 Volts between input groups
Input Voltage Range (Vs): Input Current: Input Impedance:	-3 to +30 Volts DC 10mA (typical) at rated Voltage 2.6K Ohm, typical
Input Characteristics On-State Voltage: On-State Current: Off-State Voltage: Off-State Current: Filter Delay Time:	 21 Volts to 30 Volts DC 3mA to 10mA 0 to 14 Volts DC 0 to 1mA (1mA minimum at 14V input) 1mS or 10mS configurable
Power Consumption	300mA @ 5VDC
VME	System designed to support the VME standard c.1



Front View With Door Open

INPUT CHARCTERISTICS

This input module is designed for positive logic characteristics only and, therefore, sources current from the input device to the user common. The input device is connected between the power bus and the module input.

This module is compatible with a wide variety of input devices, such as:

- Pushbuttons, limit switches, selector switches;
- Electronic proximity switches, both 2-wire and 3-wire.

In addition, inputs on this module may be directly driven by any IC697 PLC voltage-compatible output module.

The input circuitry provides sufficient current to ensure reliable operation of the switching device. Input current is typically 10mA in the ON state, and can accept up to 1mA leakage current in the OFF state without turning on.

3-wire proximity switches are easily applied, since they provide low voltage drop in the ON state and low leakage current in the OFF state.

2-wire proximity switches derive their power from the signal connections; thus, both the ON state voltage and the OFF state leakage current are higher than for the 3-wire devices. This module is designed to be compatible with many such 2-wire devices; however, each device type must be carefully evaluated for compatibility in both ON and OFF states.

CONFIGURATION

Configuration
The HE697DIM103 configures in LogicMaster 90, or with a Hand Held Programmer as an IC697MDL653.

Input Filter Selection
With the IC697 CPU and certain other CPU options, this module may be configured to have either a 1mS or 10mS input filter. Configuration is for the module, not on a per point basis; all points have the same filter time. See the applicable *Programmable Controllers Reference Manual* for detailed information.

Interrupt
When used with the IC697 CPU, input point A1 may be configured to cause a CPU interrupt. Configuration allows the CPU to be interrupted on either the rising or falling edge of the signal transition. Interrupt response is not affected by input filter time selection. Refer to the applicable *Programmable Controllers Reference Manual* for detailed information.

MECHANICAL KEYING

Module Mechanical Keying
This module includes a mechanical key that prevents inadvertent substitution of one module type for another in a given slot. The key fits a uniquely shaped area on the board below the connector. Each module has a key packaged with it.

When the module is first installed, the key latches onto the backplane center rail. When the module is extracted, the key remains in the center rail, configuring the slot to accept only identical module types.

If it is necessary to change the module location in the rack after the key has been latched onto the center rail of the rack, the key can be removed by pushing it upward to unhook the latch while pulling it off the rail. It may then be reinserted onto the module and the module inserted into the rack in the desired location.

Note that in an IC697 PLC rack only the power supply can be placed in the leftmost rack position, and slot 1 (adjacent to the power supply) must always contain a CPU (in rack 0 - the CPU rack), or a Bus Receiver Module (in an expansion rack).