

Models:

IDM4004: 4 Inputs / 1 Output

IDM4008: 8 Inputs / 2 Outputs

IDM400x Digital Multiplexer

Overview

The Innotech Digital Multiplexer is intended for use with controllers to expand the digital input capacity.

It is designed to convert number of digital input signals into an analogue voltage output.

The Innotech Digital Multiplexer can be used with any industrial or commercial system capable of digital encoding.

Specifications

Power Supply

- 24VAC $\pm 10\%$ @ 50/60 Hz (Transformer nominal rating of 2VA) or
- 24VDC $\pm 15\%$

The operating voltage must meet the requirements of Safe Extra Low Voltage (SELV) to EN60730. The transformer used must be a Class 2 safety transformer in compliance with EN60742 and be designed for 100% duty. It must also be sized and fused in compliance with local safety regulations.

Inputs

- 4 x Dry Contact Digital Input IDM4004
- 8 x Dry Contact Digital Input IDM4008

Approx 8.2VDC is supplied by the digital input when contact is open. Current supplied by the digital input is 1.14mA when contact is closed.

Outputs

- 1 x 0-10VDC signal output IDM4004, maximum load 4.5mA
- 2 x 0-10VDC signal output IDM4008, maximum load 4.5mA

LED Indication

- 1 x LED per Dry Contact Digital Input. (LED is on when contact is closed.)

Terminal Identification

Power Terminal

- 24V 24VAC or DC Supply
- 0V 0VAC or DC Supply

I/O Terminals

D# + Digital Input Positive
D# - Digital Input Negative
OUT 1 + Positive 0-10VDC output signal for inputs 1.1 to 1.4
OUT 1 - Common (0V) for output signal
OUT 2 + Positive 0-10VDC output signal for inputs 2.1 to 2.4
OUT 2 - Common (0V) for output signal

Temperature Ratings

- Storage 0 to 50°C non-condensing
- Operating 0 to 40°C non-condensing

Enclosure

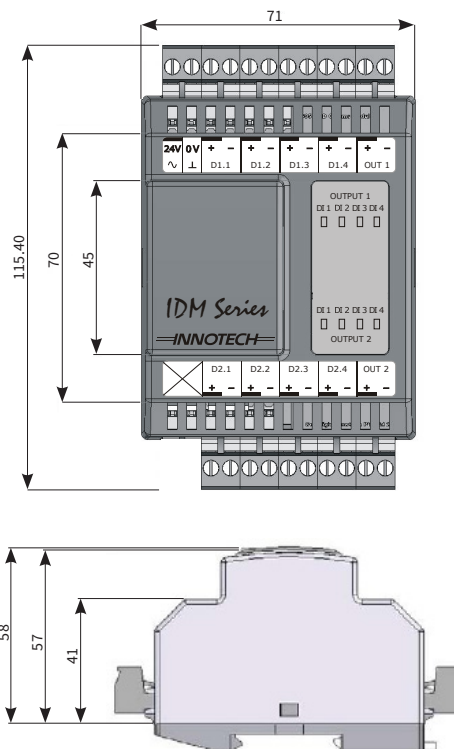
The IDM4004 and IDM4008 are housed in rectangular case made from flame retardant ABS plastic suitable for DIN Rail mounting.

Colour: Grey

Mounting: DIN Rail Mounting

Installation

- Max Wire Cross Section 2.5mm
- The IDM4004 or IDM4008 Innotech Digital Multiplexer should be mounted in an enclosure approved for industrial switchgear or industrial control equipment
- Mount the IDM4004 or IDM4008 Innotech Digital Multiplexer in a dry clean location free of excess vibration.



Applications

The Innotech Digital Multiplexer is designed for mounting inside a control enclosure.

Typical applications include:

- Air conditioning and heating systems
- Lighting control
- Monitoring device
- Distributed I/O points controller
- Process Control

Features

- AC or DC supply
- 4 or 8 Dry Contact Inputs
- 0 to 10 Volt Output signal
- LED status indication
- DIN Rail mounting

Approvals

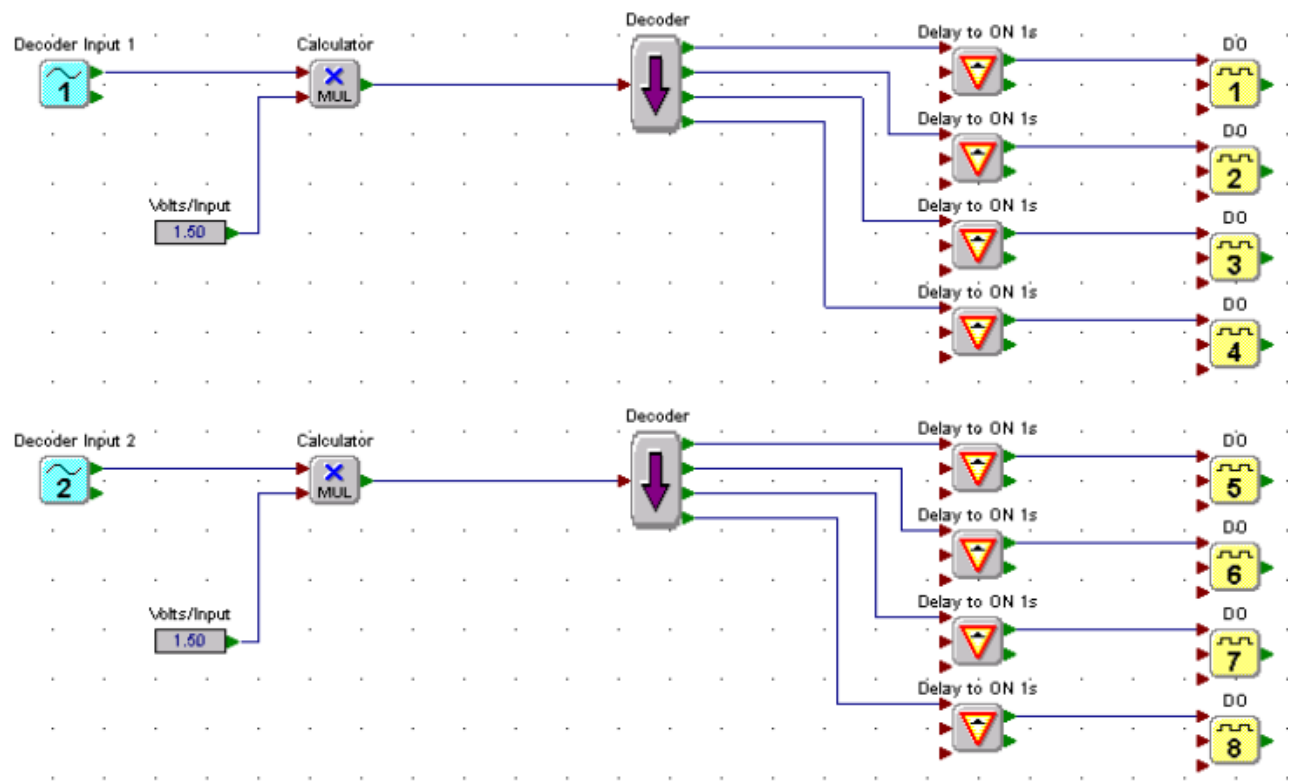
The Innotech Digital Multiplexer conforms to:

- RCM Labelling

Sample Configuration

Below is an example of the IDM4008 connected to a Maxim digital controller.

The delay blocks are required to allow for the time it takes for the voltage to change between values.



Multiplex Format

The tables show the voltage each input represents.

The values add if more than one input is on at a time.

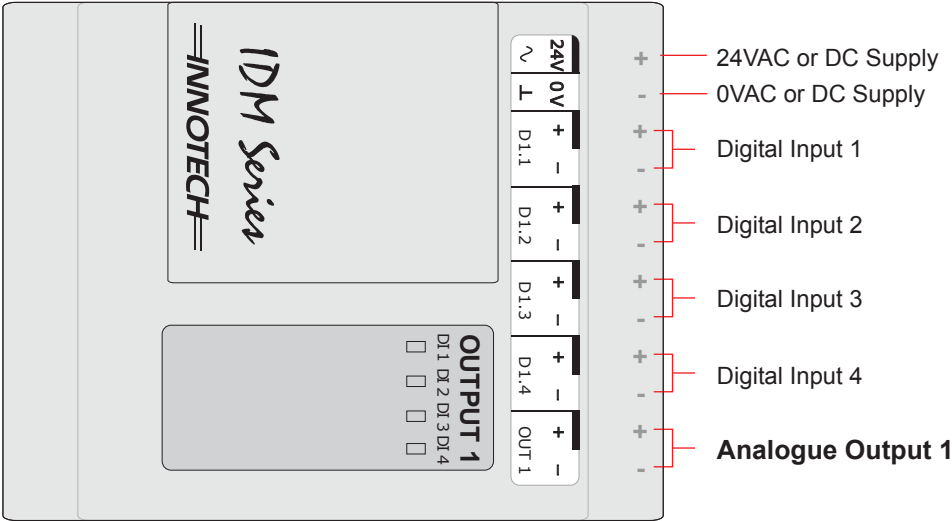
Input / Voltage Table

Specification				
Input / Output	State / Voltage			
Digital Input - D1.1	OFF	OFF	OFF	ON
Digital Input - D1.2	OFF	OFF	ON	OFF
Digital Input - D1.3	OFF	ON	OFF	OFF
Digital Input - D1.4	ON	OFF	OFF	OFF
Analogue Output - OUT1 (0-10VDC)	0.66	1.33	2.66	5.33

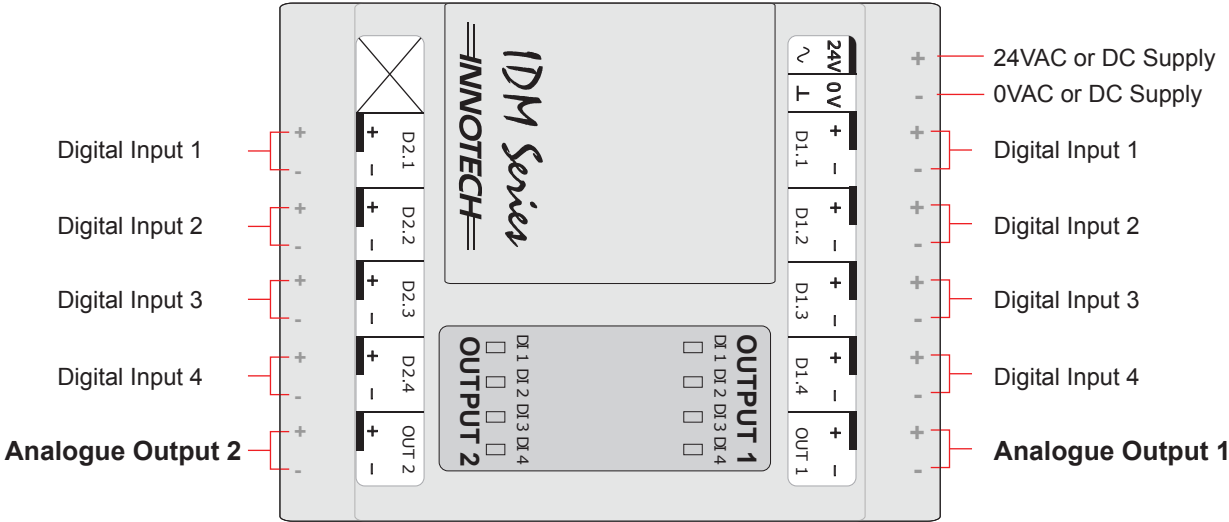
Input / Voltage Table

Specification				
Input / Output	State / Voltage			
Digital Input - D2.1	OFF	OFF	OFF	ON
Digital Input - D2.2	OFF	OFF	ON	OFF
Digital Input - D2.3	OFF	ON	OFF	OFF
Digital Input - D2.4	ON	OFF	OFF	OFF
Analogue Output - OUT2 (0-10VDC)	0.66	1.33	2.66	5.33

IDM4004 INNOTECH DIGITAL MULTIPLEXER



IDM4008 INNOTECH DIGITAL MULTIPLEXER



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