

Ideal for Desktop/Laptop use



USB-69-32



USB-69-16



USB-69-16 Front



USB-69-16 Rear



DESCRIPTION

The MicroDAQ USB-69 is a specialized digital I/O product for the USB bus, featuring 8/16 Opto Isolated inputs, 8/16 Reed Relay outputs and 24 TTL level Digital I/O lines. Based on the industry standard 82C55 PPI device, they communicate with the PC via the USB bus. The TTL Level Digital I/O can be programmed in banks of 8 as inputs or outputs.

The USB-69 with its Opto Isolated inputs and Reed Relay outputs eliminates the need for additional cables and modules.

The USB-69 is powered by a Regulated 9VDC @ 1A Universal Input PSU, which is supplied with the unit

FEATURES

- USB Interface
- 24 TTL Level DIO Lines
- 8 or 16 Reed Relay Digital Outputs (model dependent)
- 8 or 16 Opto Isolated Digital Inputs (model dependent)
- I/O Connectors: 3x DB25 (USB-69-16); 5x DB25 (USB-69-32)
- LED Indication for power & USB connection.
- Ideal for Portable, Laptop & Lab applications
- Housing: Plastic ABS with Rubber feet
- Operating Temp: 0° to 70°C
- Power: +/- 180mA (69-16), 250mA (69-32)
- O/S Support for Windows 98/ME/2000/XP & Linux
- Includes EDRE SDK, EDRE-Labview, EDRE-Testpoint and Waveview for Windows.
- Dimensions: (USB-69-16) 45(H) x 80(W) x 148(L) mm
(USB-69-32) 65(H) x 80(W) x 148(L) mm

Specifications

Digital I/O(DIO)

No. of TTL Lines: 24

Logic Levels:

Input Low Voltage: -0.5V to 0.8V

Input High Voltage: 2.0V

Output High Voltage Min: 2.4V

Output Low Voltage Max: 0.45V

Maximum Output Current: 2mA

Optically Isolated Input Characteristics

Optically Isolated Inputs: 8, 16 (depending on model number)

Frequency Response: Up to 10 kHz (Computer and software dependent)

Logic Levels: 0V to 3V: Logic 0
3.1V to 24V: Logic 1

Isolation Voltage: 2500Vrms

Input Current:Continuous:

Peak: 1A (Pulse 300rms, 2% Cycle)

Max forward current [LED]: 50mA

Reed Relay Characteristics

Number of channels: 8, 16 (depending on model number)

Relay Contact Data

Contact Form: Form A (SPST)

Rated Power: 20W (max)

Switching Voltage: 200VDC (max) (DC or peak AC)

Switching Current: 1A (max) (DC or peak AC)

Carry Current: 1.25A (max) (DC or peak AC)

Contact Resistance: 0.15 Ohm (Static); 0.2 Ohm (Dynamic)

Breakdown Voltage: 320 VDC (min) (Across Contacts)

4200 VDC (min) (Contact to Coil)

Switching Time: 0.5mS

Release Time: 0.1mS



USB-69-32 Front



USB-69-32 Rear

DIGITAL I/O (0-23)

PA1	14	1	PA0
PA3	15	2	PA2
PA5	16	3	PA4
PA7	17	4	PA6
PB1	18	5	PB0
PB3	19	6	PB2
PB5	20	7	PB4
PB7	21	8	PB6
PC1	22	9	PC0
PC3	23	10	PC2
PC5	24	11	PC4
PC7	25	12	PC6
PC7	13		DGND

Front Lower DB25 Connector for 16 & 32 channel unit

REED RELAY O/P (0-7)

RELAY 0 (2)	14	1	RELAY 0 (1)	
RELAY 1 (2)	15	2	RELAY 1 (1)	
RELAY 2 (2)	16	3	RELAY 2 (1)	
RELAY 3 (2)	17	4	RELAY 3 (1)	
RELAY 4 (2)	18	5	RELAY 4 (1)	
RELAY 5 (2)	19	6	RELAY 5 (1)	
RELAY 6 (2)	20	7	RELAY 6 (1)	
RELAY 7 (2)	21	8	RELAY 7 (1)	
	NC	22	9	NC
	NC	23	10	NC
	NC	24	11	NC
	NC	25	12	NC
	NC	13		NC

Front Upper DB25 Connector for 16 channel unit & Front Centre DB25 Connector for 32 channel unit

OPTO-ISOLATED I/P (0-7)

I/P CHAN 0 (-)	14	1	I/P CHAN 0 (+)		
I/P CHAN 1 (-)	15	2	I/P CHAN 1 (+)		
I/P CHAN 2 (-)	16	3	I/P CHAN 2 (+)		
I/P CHAN 3 (-)	17	4	I/P CHAN 3 (+)		
I/P CHAN 4 (-)	18	5	I/P CHAN 4 (+)		
I/P CHAN 5 (-)	19	6	I/P CHAN 5 (+)		
I/P CHAN 6 (-)	20	7	I/P CHAN 6 (+)		
I/P CHAN 7 (-)	21	8	I/P CHAN 7 (+)		
	* COM (-)	22	9	NC	
		NC	23	10	NC
		NC	24	11	NC
		NC	25	12	NC
		NC	13		NC

Rear Upper DB25 Connector for 16 channel unit & Rear Centre DB25 Connector for 32 channel unit
*Internally set by factory if specified!

REED RELAY O / P (8-15)

RELAY 8 (2)	14	1	RELAY 8 (1)	
RELAY 9 (2)	15	2	RELAY 9 (1)	
RELAY 10 (2)	16	3	RELAY 10 (1)	
RELAY 11 (2)	17	4	RELAY 11 (1)	
RELAY 12 (2)	18	5	RELAY 12 (1)	
RELAY 13 (2)	19	6	RELAY 13 (1)	
RELAY 14 (2)	20	7	RELAY 14 (1)	
RELAY 15 (2)	21	8	RELAY 15 (1)	
	NC	22	9	NC
	NC	23	10	NC
	NC	24	11	NC
	NC	25	12	NC
	NC	13		RELAY 8 (1)

Front Upper DB25 Connector for 32 channel unit

OPTO-ISOLATED I/P (8-15)

I/P CHAN 8 (-)	14	1	I/P CHAN 8 (+)		
I/P CHAN 9 (-)	15	2	I/P CHAN 9 (+)		
I/P CHAN 10 (-)	16	3	I/P CHAN 10 (+)		
I/P CHAN 11 (-)	17	4	I/P CHAN 11 (+)		
I/P CHAN 12 (-)	18	5	I/P CHAN 12 (+)		
I/P CHAN 13 (-)	19	6	I/P CHAN 13 (+)		
I/P CHAN 14 (-)	20	7	I/P CHAN 14 (+)		
I/P CHAN 15 (-)	21	8	I/P CHAN 15 (+)		
	* COM (-)	22	9	NC	
		NC	23	10	NC
		NC	24	11	NC
		NC	25	12	NC
		NC	13		NC

Rear Upper DB25 Connector for 32 channel unit
*Internally set by factory if specified!

Ordering Information

Supplied with EDR Enhanced Software, 1.8 Mtr. USB Cable & Universal Switch Mode 9V PSU

USB-69-16	USB 24 Channel DIO Unit with additional 8 Opto Isolated Digital Inputs & 8 Reed Relay Digital Outputs
USB-69-32	USB 24 Channel DIO Unit with additional 16 Opto Isolated Digital Inputs & 16 Reed Relay Digital Outputs