DRAFT - SUBJECT TO CHANGE

SHOW TECHNOLOGIES

DATASHEET	
Document Release	DRAFT
Published	20-Jan-2026
Applicable Product Revisions	B

OVERVIEW	
Model	ShowIO Digital Combo 8
Model Number	SIO-08DC
Channels	4 digital input, 4 digital output
Power Supply	12-24V DC Input 5V USB Input
Connectivity	Ethernet (10/100 Mbps) USB (CDC-ACM Serial)

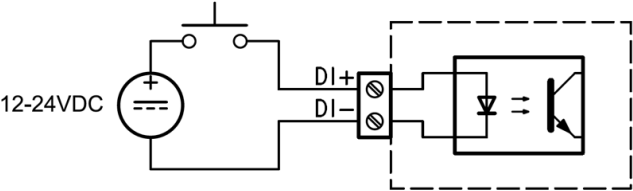| DC POWER SUPPLY	
Input Voltage (Nominal)	12V DC or 24V DC
Overcurrent Protection	Resettable fuse; 3.0A I_{hold}, 5.0A I_{trip} 20 second trip time at 8.0A
Reverse Polarity Protection	Up to -60V DC
Overvoltage Protection	Trips fuse at 28.5-31.5V
Module Current Draw (idle; no channels active; Ethernet connected)	93 mA at 12V 56 mA at 24V

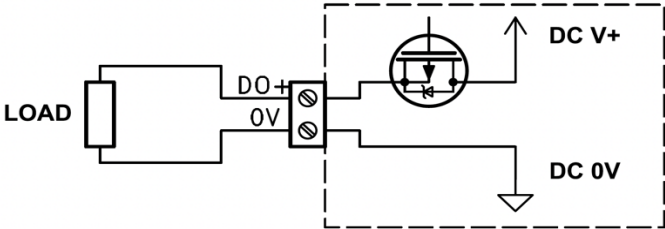| USB POWER SUPPLY	
NOTE: USB powers node core only; digital output channels are disabled unless a DC power source is connected.	
Input Voltage	5V DC (USB default)
USB PD Support	Will work with USB PD chargers
Circuit Protection	Reverse current protection; ESD protection

DIGITAL INPUTS	
Channels	4

Channel Wiring	
Sensing Voltage Range (Nominal)	12-24V DC
OFF State Voltage (Technical)	< 3.3V DC
Absolute Maximum Voltage (Technical)	50V DC
Current Draw	3 mA at 12VDC 14 mA at 24VDC
Debouncing Filter	Software configurable
Reverse Voltage Protection	-40 V
Isolation Voltage (Nominal)	3750 V_{rms}
Switch-On Time (typ.)	600 ns at 12V DC 300 ns at 24V DC
Switch-Off Time (typ.)	30 us at 12V DC 37 us at 24V DC

DIGITAL OUTPUTS

Channels	4
Channel Wiring	
Load Type	Resistive, inductive, capacitive
Output Voltage (12V Supply, typ.)	11.4V DC
Output Voltage (24V Supply, typ.)	23.3V DC
Short-Circuit Protection **Current-Limited**	Yes Yes
Max Output Current (Single Channel)	2.0A
Max Output Current (All Channels)	3.0A
Switch-On Time (typ.)	100 us (24V, 1A load)
Switch-Off Time (typ.)	51 us (24V, 1A load)
Reverse Voltage Protection	-40V DC (ON DO+ TERMINAL ONLY)

ETHERNET

Default IP Address	192.168.10.1 (LOCAL mode) 10.11.12.1 (REMOTE mode)
IP Addressing	Configure locally via DIP switches Configure remotely via OSC
IP Configuration Type	DHCP or Static

OSC COMMUNICATION	
Supported Protocols	Open Sound Control v1.0 Open Sound Control v1.1
Message Set	ShowIO API
Supported Transports	UDP over Ethernet; USB serial (SLIP-encoded)

RELEASE HISTORY	
0.1 (DRAFT) - 20-Jan-2026	Initial draft release

For product documentation, manuals, and tutorials, visit
docs.show-technologies.com