



Artisan Scientific

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- Drivers
- Technical Specifications, Manuals and Documentation

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Overview



IDC's 961 (single axis) and 962 (two axis) indexers output step and direction or CW/CCW control signals to one or more drives. The 961 and 962 use IDC's IDEal™ command language, insuring a user-friendly programming environment. These indexers can be used with any stepper drive or any digital servo drive that accepts an industry standard step and direction control signal (either differential or single ended). Consider the 961/2 for your motion control application when you require:

- A mix of servo and stepper drives. The 962 is an ideal solution when your application requires coordinated motion between two axis: one of which requires a high power brushless servo, and the other requires a low power stepper.
- Multiple drives to be run from one command signal. This is very useful when an application calls for multiple drive/motor systems to always do identical moves.
- The motion controller to be separate from the drive for E-Stop reasons. Using a 961/2 with a separate drive allows power to be cut from the drive without cutting power to the motion controller.
- A non-IDC drive/motor system, but would like to implement a user friendly motion controller.

Drive Compatibility

The 961 and 962 easily interface to a wide variety of step motor, and digital servo, drives which accept industry standard step and direction control signals. The 961/2 accept incremental encoder feedback, providing closed loop, and stall detect features. The frequency range of the 961/2's step output signal allows you to control drives ranging from the simplest full-step step motor drive to high speed digital brushless servo drives.

OPTO-Compatible I/O

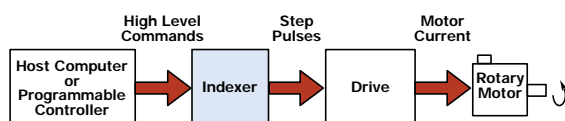
- Accepts OPTO22 (G4) digital modules and Grayhill (G5) analog and temperature modules.
- 100% solid state, opto-isolation to 4000 volts
- 8 positions, all bidirectional
- Specify (intermix) factory installed AC, DC, and analog I/O modules

Optional Keypad

- Both a programming and operator interface
- Menu-driven setup, help functions, diagnostic screens, and trace mode to facilitate easy setup, programming and troubleshooting
- Easy to read, backlit 40 character display
- Commands listed on keys for easy reference
- Attaches to the control or mounts remotely
- Keypad is NEMA 4 (IP65) when panel mounted

Motion Control

- 6K of memory for up to 199 user programs (30K, 400 programs optional)
- Up to 2 axis of incremental encoder feedback
- User scaling of position, velocity, and acceleration
- Variable math and conditional branching
- IDCMotion™ Windows Application Development software included
- 50K resolution





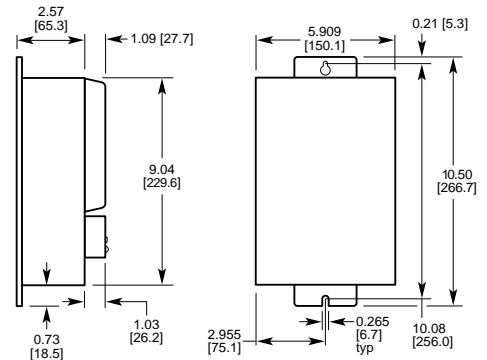
Specifications

961/2
Standalone
Motion Controller

Step Motor
Systems

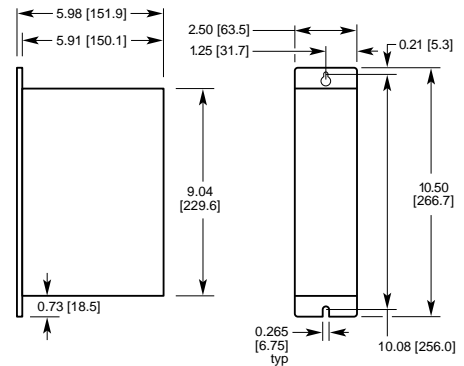
Input Power	120 VAC single phase, 50/60 Hz 2.0 Amps max.
Serial Interface	RS-232C, 3 wire implementation (Tx, Rx and Gnd), 9600 Baud, 8 data bits, 1 stop bit, no parity.
Environmental	
Ambient Temperature	0-50°C.
Humidity	0% to 90% non-condensing.
Drive Signals	
Step, Direction & Shutdown Outputs	Optically isolated. Low signal <0.8 VDC, high signal >3.5 VDC, ±60 mA. Active high. Step pulse width is 0.8 to 10msec (depending on drive resolution setting).
Drive Fault Input	Optically isolated, TTL level, internal 1.0k pull-up to +5 VDC.
Position Range	±0-2,147,483,647 steps. Absolute and incremental
Velocity Range	1 to 1,250,000 steps/sec
Acceleration Range	1 to 20,000,000 steps/sec ²
OPTO-compatible I/O	8 Positions support OPTO-22 (G4) digital, and Grayhill (G5) analog and temperature modules (see ordering information).
Inputs	
8 Programmable, Limits, Home	24 VDC max, Optically isolated, can be pulled up to internal isolated 12VDC supply. 12 mA current required.
Incremental Encoder	Optically isolated, differential 5VDC, 2 MHz max (post-quadrature). 5VDC, 200mA power available total.
Outputs	
8 Programmable	Open collector, sink current per output 100 mA max, 350 mA max total sink current (sum of all outputs)
Programming	IDEAL™ programming language. Program from the front panel, or via your PC using our Windows-compatible IDCMotion™ Application Developer software (included).

Minimum Depth Mounting Dimensions in [mm]

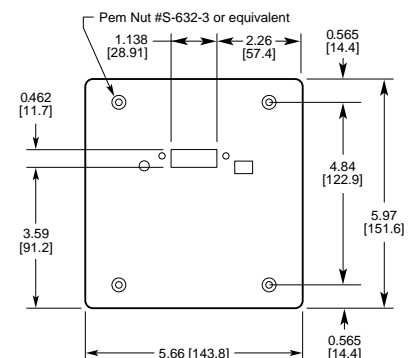


Minimum Width Mounting Dimensions in [mm]

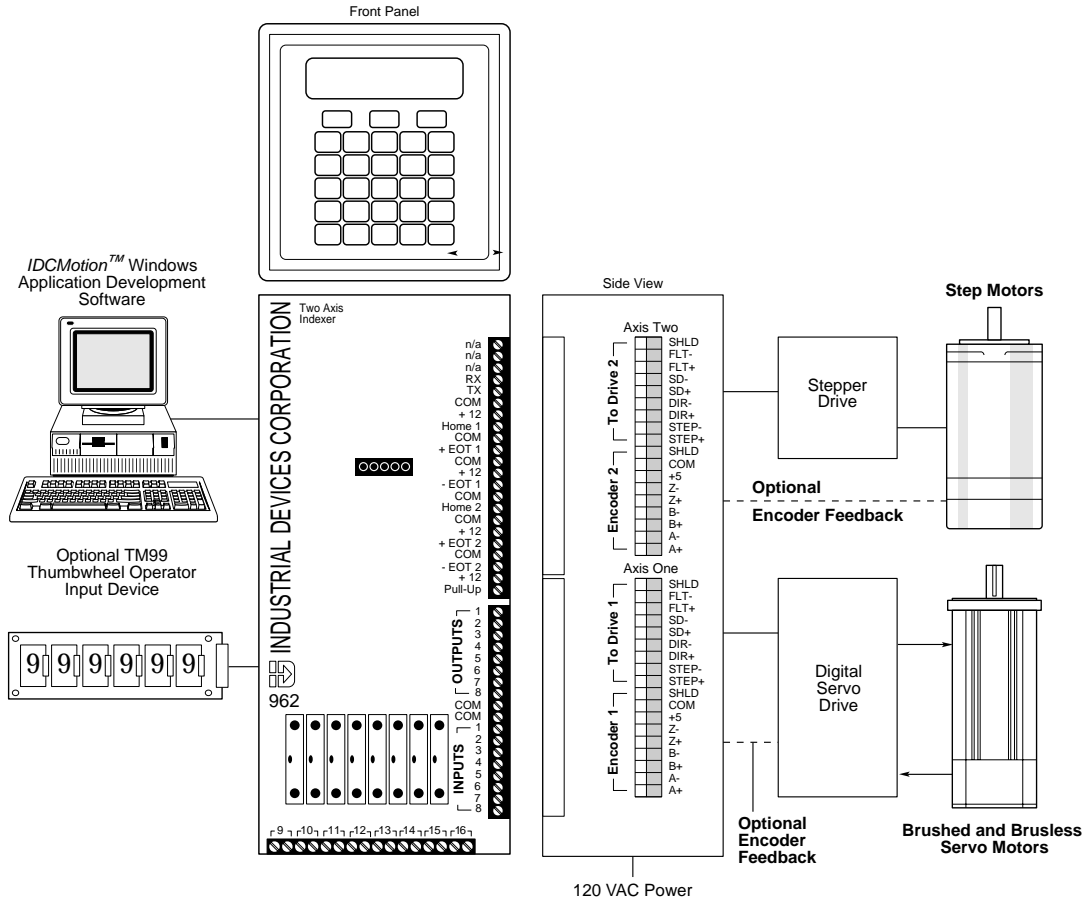
Front panel and opto modules removed.



Remote Mounting Front Panel (rear view) in [mm]



Step Motor Systems



How To Order

Model	Description	Code	I/O Module Description	Option	Description
961	1-axis unit, with front panel	1	DC/AC In, 10-32 VDC, 12-32 VAC	-30K	30K user program memory
962	2-axis unit, with front panel	2	DC In, TTL		
961NP	1-axis unit, no front panel	3	DC In, 35-60 VDC		
962NP	2-axis unit, no front panel	4	AC In, 90-140 VAC		
		5	AC In, 180-240 VAC		
		6	DC Out, 5-60 VDC, 3 Amps		
		7	AC Out, 12-140 VAC, 3 Amps		
		8	AC Out, 24-280 VAC, 3 Amps		
			Input test switch		
			Analog In, 0-10 VDC		
			Analog In, 4-20 mA		
			Analog Out, 0-10 VDC		
			Analog Out, 4-20 mA		
			J Thermocouple In, 0-700°C		
			K Thermocouple In, -100-924°C		
			RTD In, 100 Ohm		
			Empty		
TM99	Accessories		Thumbwheel input module. See page G-46.		



To confirm your selection, review the checklist on page G-6.

Accessories

TM99

Thumbwheel input module. See page G-46.





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