ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

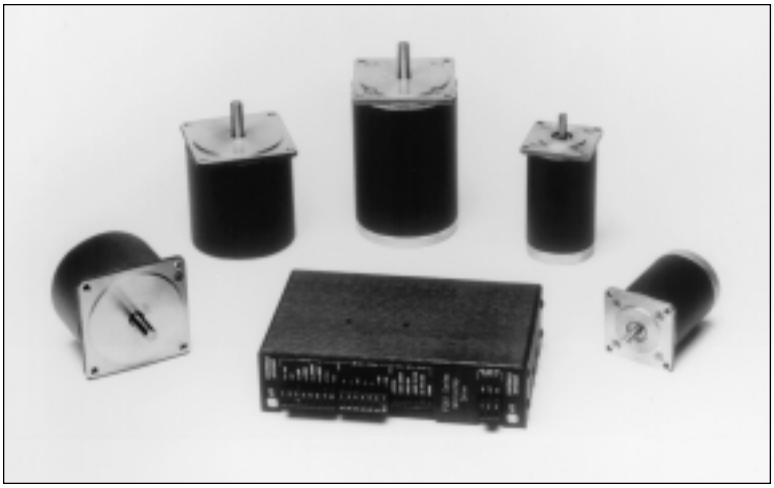
- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Danaher / American Precision Industries P261X-DO* at our website: *Click HERE*

Compact Microstep Systems



Common Features

- Torques from 15 to 300 oz-in.
- Speeds to 3,000 RPM continuous.
- Dip switch selectable resolutions up to 50,800 steps per revolution.
- Mid range stabilization prevents loss of motor synchronization.
- Dip switch selectable automatic low power feature.
- Optical isolation of all inputs and outputs provides high noise immunity.
- Full short circuit protection.
- DIP switch selectable current settings from 0.2-5.0 Amps.
- Accepts 95-135 VAC 50/60 Hz input.
- Status/Fault LED indicators.

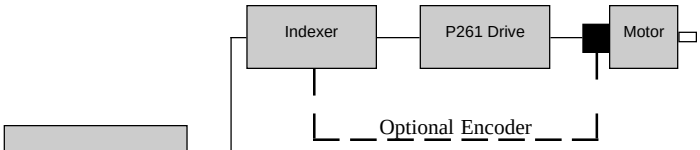
Description

The P261 Series of Drives and the P261X Series of Drive/Indexer Systems are compact microstep systems that provide cost effective solutions for most motion control applications. The P261 packaged drive section is a state-of-the-art microstep drive utilizing surface mount technology with the translating and power stages needed to control virtually any hybrid step motor. By combining the ultra efficient MOSFET amplifiers, versatile H-bridge technology, and microprocessor controlled logic, the P261 provides outstanding speed/torque performance.

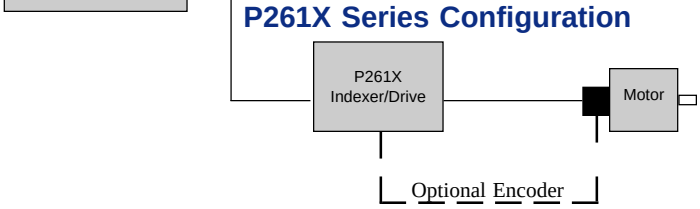
The P261X Indexer section automatically generates precise ramping routines; interfaces to your environment through the use of RS-232 communications, limit inputs, and programmable I/O; and for applications utilizing encoder capabilities, position maintenance and stall detection are available. Best of all, API's Intelli-Command Language (ICL) indexer software was designed for use by individuals without computer programming experience. Through the use of plain English type commands, your motion application will be up and running quickly, providing you with dividends long before other motion control systems.

PACKAGED SYSTEMS

P261 Series Configuration



P261X Series Configuration



P261X Additional Features:

- Includes a powerful built-in indexer.
- Easy to learn "Plain English" instructions.
- RS-232 communications to 19,200 Baud allows daisy chaining of multiple devices.
- Home, End-of-Travel plus 13 programmable inputs and 8 programmable outputs.
- Encoder capabilities include position maintenance and stall detection for closed loop positioning.
- Built-in editor allows creation of up to 88 different motion programs.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

COMMON SPECIFICATIONS FOR P261 AND P261X:

DRIVE TYPE ..... 2 phase, bipolar, constant current, MOSFET chopper, 20 kHz fixed.

RESOLUTIONS ..... 200, 400, 1000, 2000, 5000, 10000, 18000, 20000, 21600, 25000, 25400, 25600, 36000, 50000, 50800.

WAVEFORMS ..... Sine wave. Mid-range stabilization prevents loss of motor synchronization.

POWER
Inputs ..... 90-135 VAC 50/60 Hz, +5vdc for Logic 100mA min.
Output ..... 0.2-5.0 amps/phase, dip switch selectable.

PROTECTION
Short Circuit ..... Phase to phase, phase to ground.
Over Temperature ..... Internal air temp exceeds 140° F (60° C).

FAULT OUTPUT ..... Sinking output to OUTCOM, 5-24 VDC, 35mA max. Disable LED on.

LOW POWER MODE
Auto Reduce ..... DIP switch enabled. Current drops to 50% of selected value if no step pulses are received in one second.

ENVIRONMENTAL
Temperature ..... Drive heatsink max. 140° F (60° C); Motor case max. 212° F (100° C); Storage -40° to 185° F (-40° to 85° C)
Humidity ..... 0-95%, non-condensing.

P261 ADDITIONAL SPECIFICATIONS:

INPUTS
TYPE ..... Optically isolated. TTL compatible.
OPTO IN ..... Optical isolation power. User supplies +5VDC at 100 milliamps min.
STEP ..... Requires 0.5 µsec min. width, 1 MHz max. pulse rate, steps on trailing edge.
DIRECTION ..... CW/$\overline{\text{CCW}}$.
LOW POWER ..... HI/$\overline{\text{LOPWR}}$. Reduces motor current to 50% of selected value.
NO POWER ..... ENA/$\overline{\text{NOPWR}}$. Turns off motor current.
RESET ..... RUN/$\overline{\text{RESET}}$. Resets logic and establishes zero phase condition.

P261X ADDITIONAL SPECIFICATIONS:

OPERATIONAL
Acceleration ..... Optimal non-linear mathematical function.
Step Accuracy ..... ± 0 steps.
Position Range ..... ± 2.1 billion steps.
Speed Range ..... 0 to 1,000,000 pulses/second. ± 1% maximum speed.

COMMUNICATIONS
Type ..... RS-232C serial, 3 wire implementation (Tx, Rx, Gnd).
Baud Rates ..... 1200, 2400, 4800, 9600 and 19200.
Mode ..... Full Duplex.
Format ..... 8 data bits; 1 stop bit, no parity; ASCII Characters.
Multi-Axis ..... Daisy chain up to 36 indexers from a single host RS-232C port.

INPUTS
Type ..... Optically isolated. TTL or 5-24VDC.
Limits ..... CW, CCW, HOME.
Programmable ..... Thirteen.
Jog, Hold, Stop ..... Software assignable to programmable inputs.
Active State ..... High or low. Software selectable.

OUTPUTS
Type ..... Optically isolated. Open collector 5-24VDC, 35 milliamp max.
Fault ..... Overtemp, Undervoltage or Overcurrent.
Programmable ..... Eight. Active high or low. Software selectable.

ENCODER
Channels ..... Complementary A & B channel in quadrature with Z (index) channel. Maximum input frequency rate of 256 kHz on A & B Channel (pre-quadrature).

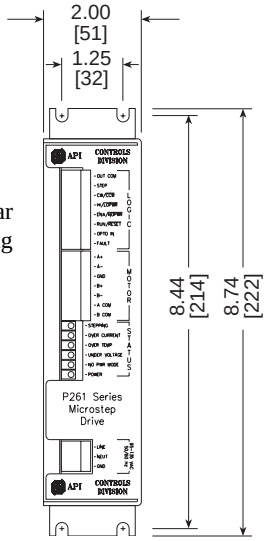
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

DIMENSIONS: P261 SERIES

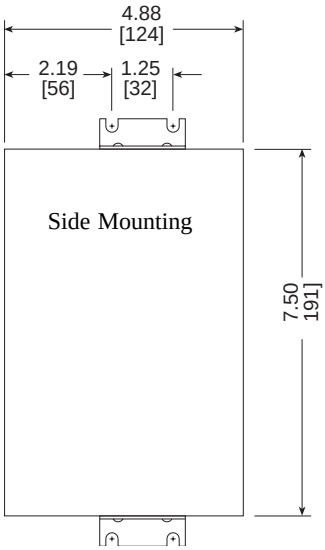
[-] denotes millimeters

Unit should be mounted vertically with a 3" horizontal and 2" vertical clearance.

Front and Rear Mounting



Side Mounting



Subject to change without notice.

P261 DRIVE CONNECTIONS/LED'S

STATUS LED'S

STEPPING	1	Motor Stepping
OVER CURRENT	2	Drive Over Current
OVER TEMP	3	Drive Over Temperature
UNDER VOLTAGE	4	Drive Under Voltage
NO PWR MODE	5	Drive in No Power Mode
POWER	6	LED indicating power on

MOTOR

A+	1	Motor Phase A+
A-	2	Motor Phase A-
GND	3	Motor Phase Ground
B+	4	Motor Phase B+
B-	5	Motor Phase B-
A COM	6	Motor Phase A Common
B COM	7	Motor Phase B Common

DRIVE/LOGIC

OUT COM	1	Output Common
STEP	2	Step Signal
CW/$\overline{CCW}$	3	Direction Signal
HI/$\overline{LOPWR}$	4	High/Low Power Signal
ENA/$\overline{NOPWR}$	5	Enable/No Power Signal
RUN/$\overline{RESET}$	6	Run/Reset
OPTO IN	7	Opto Input (5VDC)
FAULT	8	Fault Output (5-24 VDC)

AC POWER

LINE	1	AC Input Black Wire (Line)
NEUT	2	AC Input White Wire (Neutral)
GND	3	AC Input Green Wire (Ground)

PACKAGED SYSTEMS

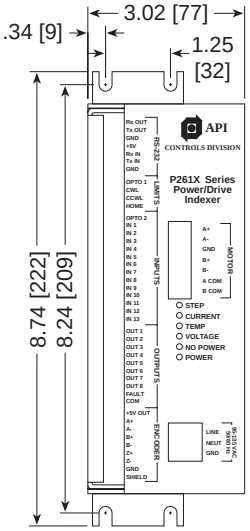
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

DIMENSIONS: P261X SERIES

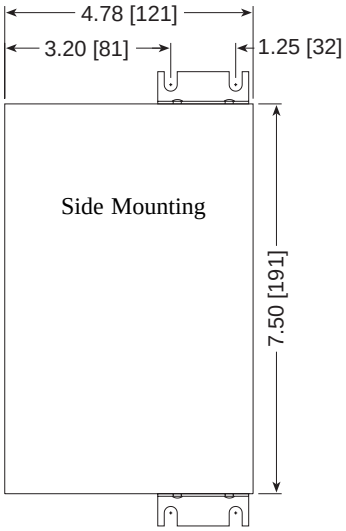
[-] denotes millimeters

Unit should be mounted vertically with a 3" horizontal and 2" vertical clearance.

Front and Rear Mounting



Side Mounting



Subject to change without notice.

P261X DRIVE CONNECTIONS/LED'S

STATUS LED'S

STEP	1	Motor Stepping
CURRENT	2	Drive Over Current
TEMP	3	Drive Over Temperature
VOLTAGE	4	Drive Under Voltage
NO PWR	5	Drive in No Power Mode
POWER	6	LED indicating power on

RS-232

Rx OUT	1	Receive Out
Tx OUT	2	Transmit Out
GND OUT	3	Ground Out
+5V OUT	4	+5V Out
Rx IN	5	Receive In
Tx IN	6	Transmit In
GND IN	7	Ground In

LIMITS

OPTO 1	1	Optical Isolation Input (5-24VDC)
CWL	2	Clockwise Travel Limit
CCWL	3	Counter Clockwise Travel Limit
HOME	4	Home Position Reference Input

INPUTS

OPTO 2	1	Optical Isolation Input (5-24VDC)
IN 1	2	Programmable Input #1
IN 2	3	Programmable Input #2
IN 3	4	Programmable Input #3
IN 4	5	Programmable Input #4
IN 5	6	Programmable Input #5
IN 6	7	Programmable Input #6
IN 7	8	Programmable Input #7
IN 8	9	Programmable Input #8
IN 9	10	Programmable Input #9
IN 10	11	Programmable Input #10
IN 11	12	Programmable Input #11
IN 12	13	Programmable Input #12
IN 13	14	Programmable Input #13

OUTPUTS

OUT 1	1	Programmable Output #1
OUT 2	2	Programmable Output #2
OUT 3	3	Programmable Output #3
OUT 4	4	Programmable Output #4
OUT 5	5	Programmable Output #5
OUT 6	6	Programmable Output #6
OUT 7	7	Programmable Output #7
OUT 8	8	Programmable Output #8
FAULT	9	Fault Output
OUT COM	10	Reference Ground For Outputs

ENCODER

+5V	1	5VDC Supply to Encoder
A+	2	TTL Diff. Signal From Ch. A+
A-	3	TTL Diff. Signal From Ch. A-
B+	4	TTL Diff. Signal From Ch. B+
B-	5	TTL Diff. Signal From Ch. B-
Z+	6	TTL Diff. Signal From Ch. Z+
Z-	7	TTL Diff. Signal From Ch. Z-
GND	8	Encoder Ground
SHIELD	9	Shield Connection to Encoder

MOTOR

A+	1	Motor Phase A+
A-	2	Motor Phase A-
GND	3	Motor Phase Ground
B+	4	Motor Phase B+
B-	5	Motor Phase B-
A COM	6	Motor Phase A Common
B COM	7	Motor Phase B Common

AC POWER

LINE	1	AC Input Black Wire (Line)
NEUT	2	AC Input White Wire (Neutral)
GND	3	AC Input Green Wire (Ground)

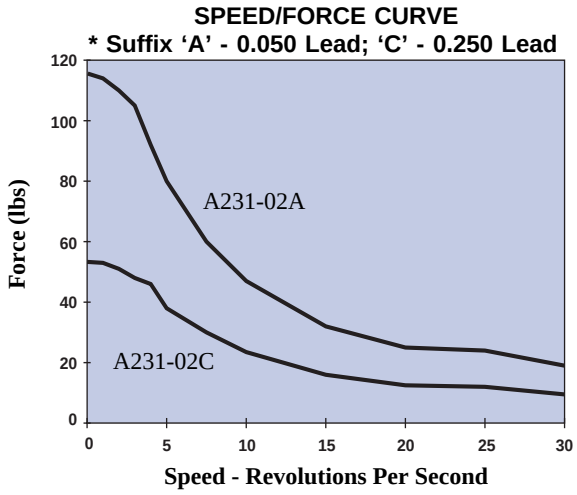
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

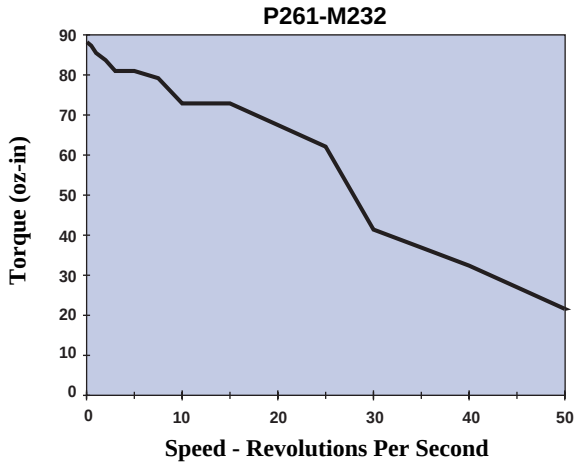
SYSTEM SELECTIONS / MOTOR DIMENSIONS

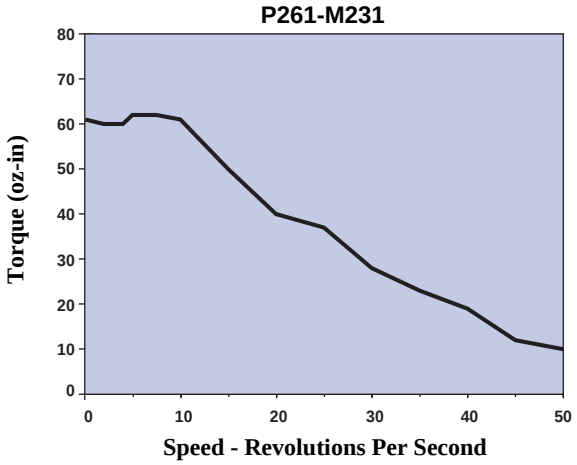
Each system includes a Power Supply, Drive, and Motor.

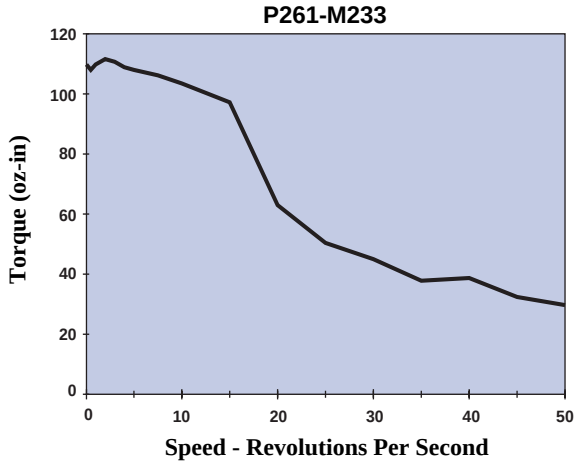
Base System	With Indexer	With Indexer/Encoder	Static Torque Oz-in (N-m)	Motor Width in. (mm)	Motor Length in. (mm)	Motor Model
P261-A231*	P261X-A231*	----	N/A	2.23 (57)	2.00 (51)	A231-02*
P261-M231	P261X-M231	P261X-M231E	60 (0.42)	2.23 (57)	2.00 (51)	M231-03
P261-M232	P261X-M232	P261X-M232E	100 (0.71)	2.23 (57)	3.25 (83)	M232-09
P261-M233	P261X-M233	P261X-M233E	150 (1.06)	2.23 (57)	4.00 (102)	M233-09
P261-M341	P261X-M341	P261X-M341E	150 (1.06)	3.25 (83)	2.45 (62)	M341-09
P261-M342	P261X-M342	P261X-M342E	300 (2.12)	3.25 (83)	3.70 (93)	M342-09
P261-MT230	P261X-MT230	P261X-MT230E	50 (0.35)	2.25 (57)	1.50 (38)	MT230-04
P261-MT231	P261X-MT231	P261X-MT231E	100 (0.71)	2.25 (57)	2.00 (51)	MT231-07
P261-MT232	P261X-MT232	P261X-MT232E	150 (1.06)	2.25 (57)	3.00 (76)	MT232-06

SPEED/TORQUE CURVES







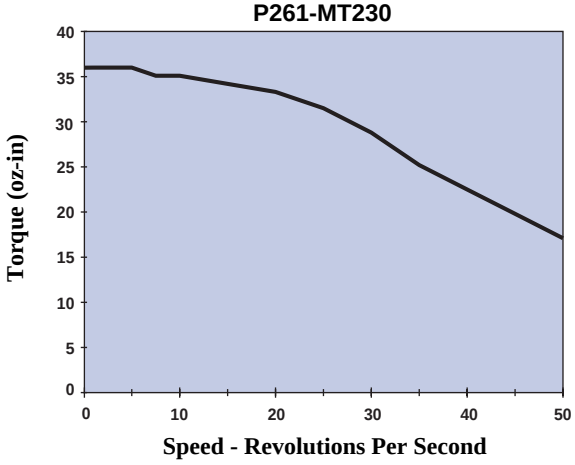


PACKAGED SYSTEMS

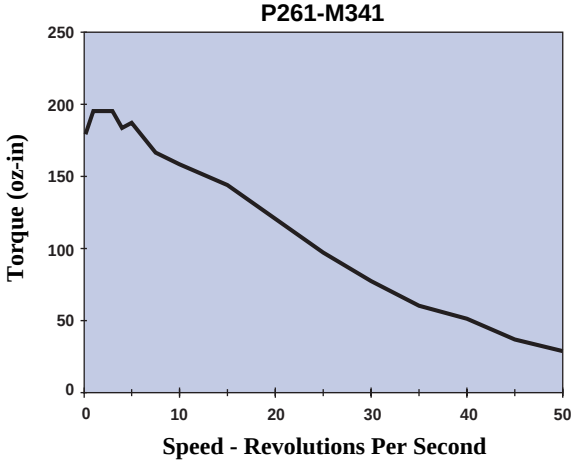
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

SPEED/TORQUE CURVES

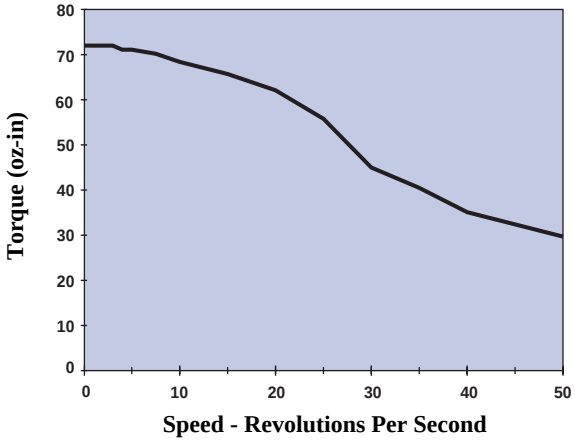
P261-MT230



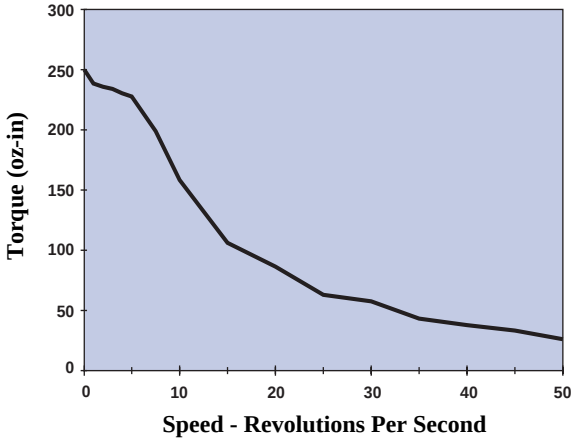
P261-M341



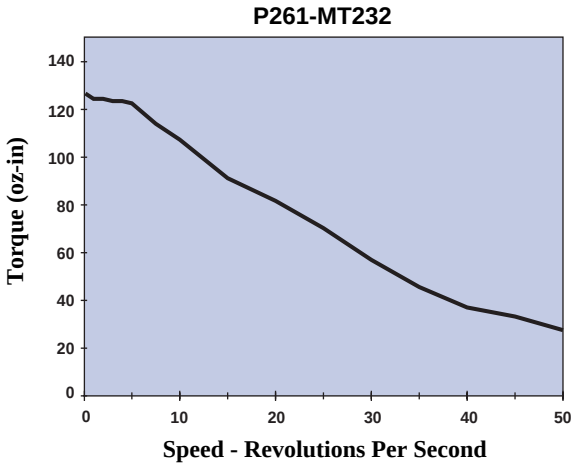
P261-MT231



P261-M342



P261-MT232



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP