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 *Festo CMMS-ST-C8-7* at our website: *Click HERE*

Motor controllers CMMS-ST, for stepper motors

FESTO



- Servo Lite thanks to encoder option
- Travel program through linking of positioning records
- CANopen fieldbus interface integrated, others available as an option

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

Motor controllers CMMS-ST, for stepper motors

Key features

Hardware

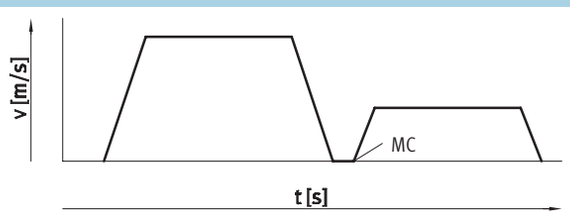
- Positioning controller with setpoint specifications for positions, rotational speed and torque
- "Servo Lite operation" (closed loop) thanks to encoder option, in other words no step losses, current following errors are corrected
- No additional controller (PLC) required for positioning tasks. All necessary functions are integrated
- Integrated braking resistor
- Interfaces:
  Integrated:
  – Analogue
  – I/O interface
  – CW/CCW
  – Pulse/direction signals
  – A/B signals (encoder)
  – CANopen
  Optional:
  – Profibus DP
  – DeviceNet

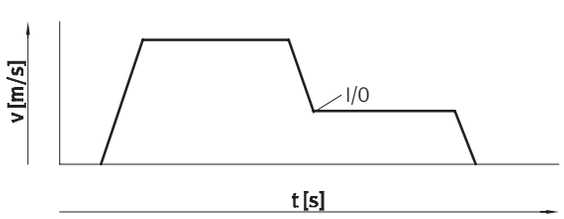
Software/firmware

- Adjustable current reduction via software
- CANopen protocol as per DS301 with application profile DSP402, including "interpolated position mode" or
- The FHPP positioning profile from Festo
- The motors are sinusoidally actuated across the entire rotational speed range, with a cycle rate of 50 kHz. This guarantees resonance-free, quiet running
- 63 positioning records, selectable via I/O signals or fieldbus
- Analogue speed specification with 12-bit resolution
- One of the digital inputs is set up as a high-speed input, response time < 100 µs

Travel program

- Linking of any positioning records into a travel program
- Further switching conditions for the travel program possible via digital inputs, for example
  MC – motion complete
  I/O – digital inputs





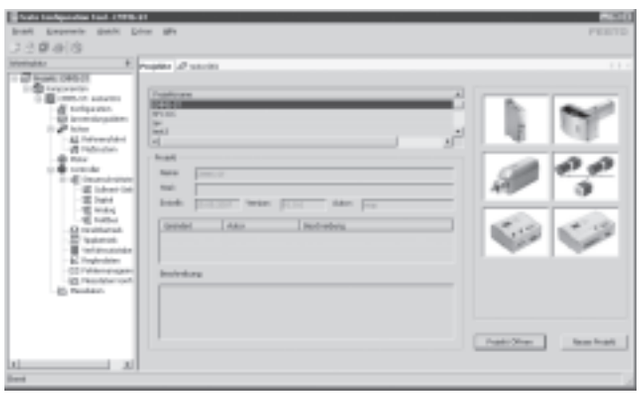
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Motor controllers CMMS-ST, for stepper motors

Key features

FCT software – Festo Configuration Tool

Software platform for electric drives from Festo



- All the drives in a system can be managed and archived in a common project
- Project and data management for all supported device types
- Simple to use thanks to graphically supported parameter entry
- Universal mode of operation for all drives
- Working offline at your desk or online at the machine

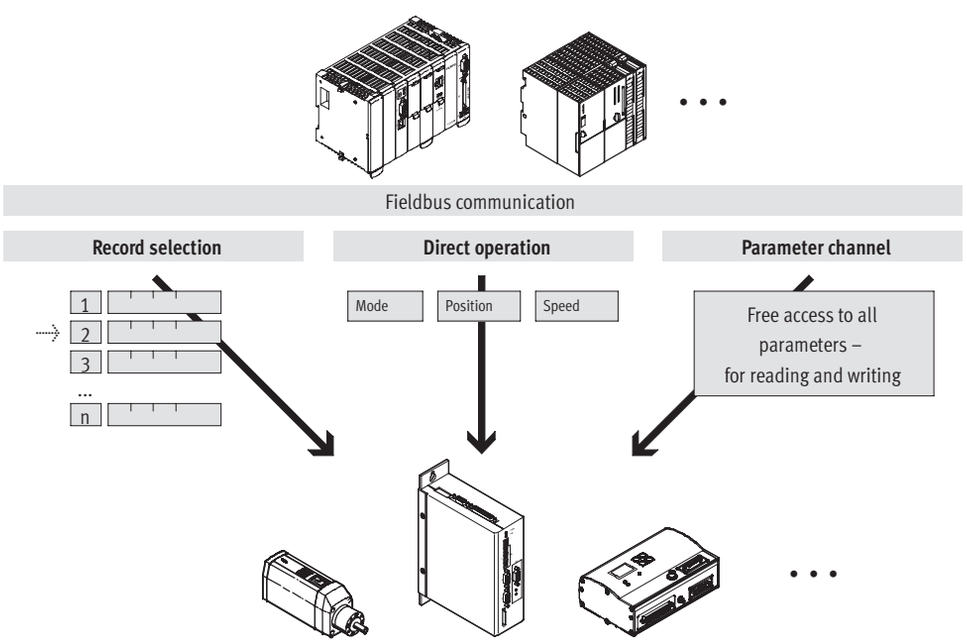
FHPP – Festo Handling and Positioning Profile

Optimised data profile

Festo has developed an optimised data profile, the "Festo Handling and Positioning Profile (FHPP)", that is tailored to the target applications for handling and positioning tasks.

The FHPP data profile permits the activation of Festo motor controllers, using a fieldbus interface, via standardised control and status bytes.

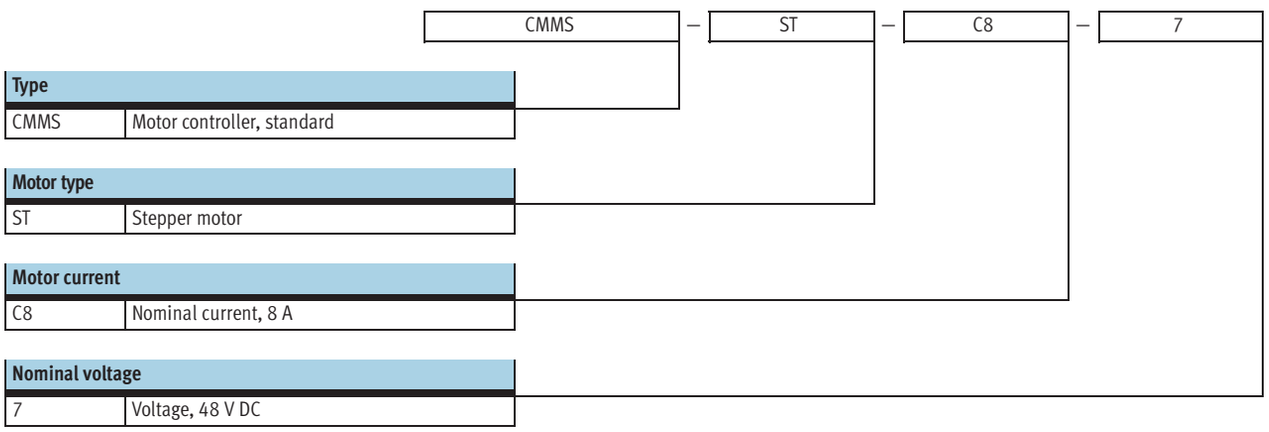
The following are defined, among others:
- Operating modes
- I/O data structure
- Parameter objects
- Sequence control



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

Motor controllers CMMS-ST, for stepper motors

Type codes



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

Motor controllers CMMS-ST, for stepper motors

Technical data

FESTO

Fieldbus interfaces

CANopen

PROFIBUS

DeviceNet



General technical data					
Interfaces		I/O	CANopen	Profibus DP	DeviceNet
Operating mode		PWM MOSFET power amplifier			
Motor actuation		Sinusoidal current impressing			
Cycle rate	[kHz]	Constant 50			
Rotary position generator		Encoder			
Display		7-segment display			
Parameterisation interface		RS232 (9,600 ... 115,000 bits/s)			
Encoder interface		RS422			
Communication profile		–	DS301, FHPP	DP-V0 / FHPP	FHPP
		–	DS301, DSP402	Step7 functional modules	
Braking resistor	[Ω]	17			
		Integrated			
Impedance of setpoint input	[kΩ]	20			
Pulse power of braking resistor	[kVA]	0.5			
Working range of monitor outputs	[V]	±10			
Working range of setpoint inputs	[V]	±10			
Number of analogue monitor outputs		1			
Number of analogue setpoint inputs		1			
Mains filter		Integrated			
Product weight	[g]	2,000			

Electrical data		
General		
Nominal current setting		Via software
Max. peak current duration	[s]	2
Max. intermediate circuit voltage	[V DC]	75
Load supply		
Nominal voltage	[V DC]	24 ... 75
Nominal current	[A]	8
Peak current	[A]	12
Logic supply		
Nominal voltage	[V DC]	24 ±20
Nominal current	[A]	0.3
Max. current of digital logic outputs	[mA]	100

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

Motor controllers CMMS-ST, for stepper motors

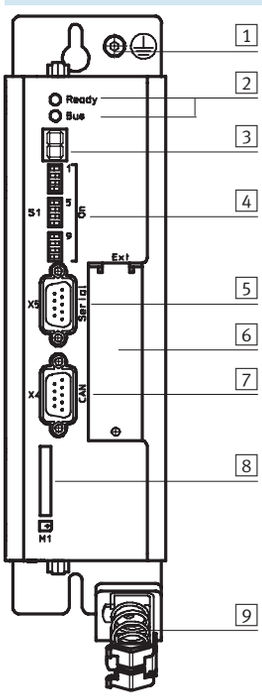
Technical data

FESTO

Operating and environmental conditions		
Digital logic outputs		Not electrically isolated
Logic inputs		Electrically isolated
Protection class		IP20
Protective function		I^2t monitoring
		Current monitoring
		Voltage failure detection
		Current following error monitoring
		Temperature monitoring
Ambient temperature	[°C]	0 ... +50
CE mark (see declaration of conformity)		In accordance with EU EMC directive
Relative air humidity	[%]	0 ... 90 (non-condensing)

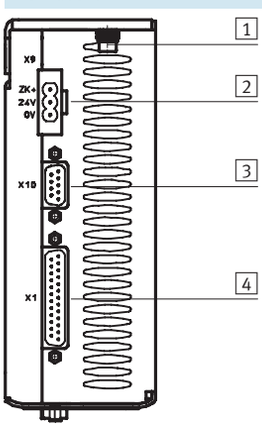
View of motor controller

From the front



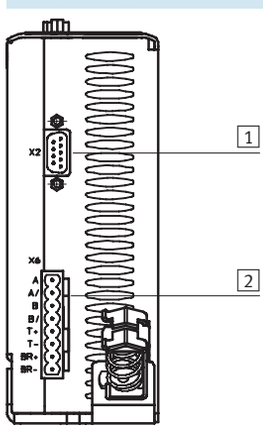
1 Earthing
2 Ready/Bus – LED
3 Status display
4 Fieldbus settings and boot loader
5 Interface: RS232/RS485
6 Technology module (optional)
7 Interface: CAN bus
8 SD memory card
9 Screened connection

From above



1 Earthing screw
2 Power supply
3 Increment generator output
4 I/O interface

From underneath



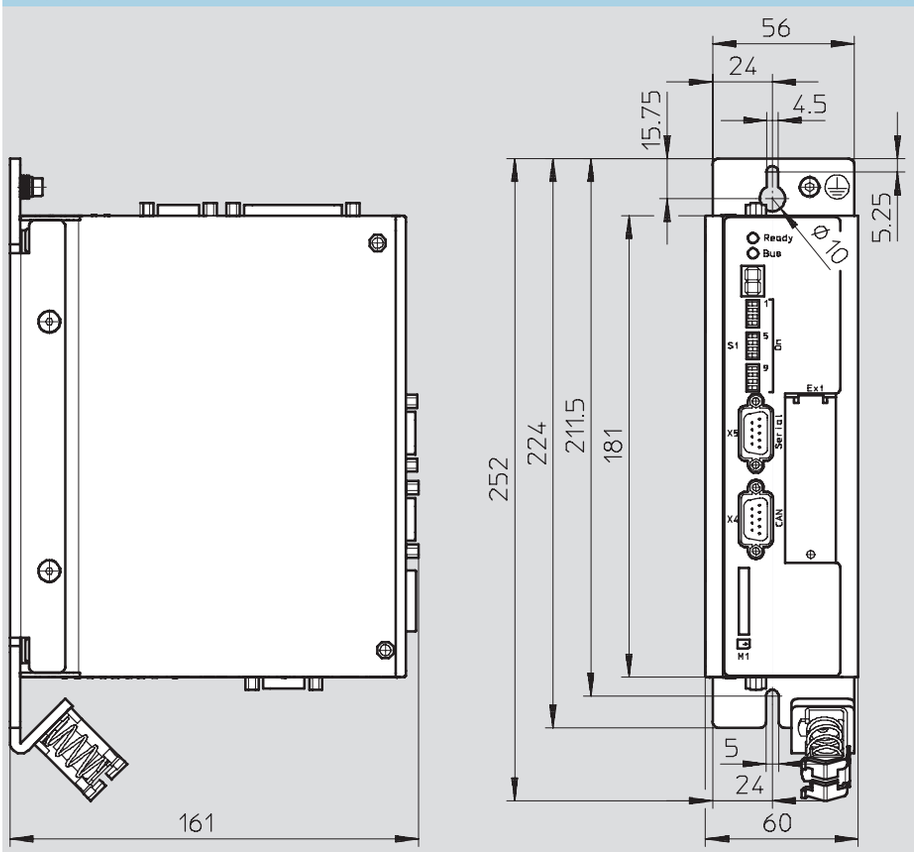
1 Increment generator input
2 Motor connection

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

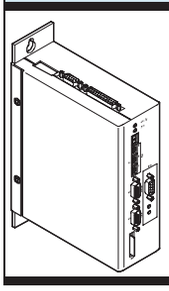
Motor controllers CMMS-ST, for stepper motors

Technical data

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**



Ordering data

	Brief description	Part No.	Type
	The plug range NEKM (➔ 82) and the operator package (➔ 83) are included in the scope of delivery for the motor controller.	**547 454**	**CMMS-ST-C8-7**

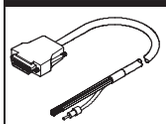
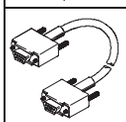
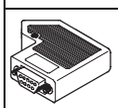
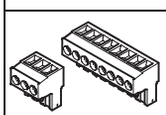
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Motor controllers CMMS-ST, for stepper motors

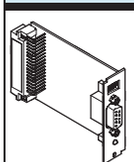
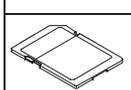
Accessories

FESTO

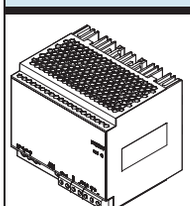
Ordering data – Cables and plugs

	Brief description	Cable length [m]	Part No.	Type
	Control cable, for I/O interface to any controller	2.5	**552 254**	**NEBC-S1G25-K-2.5N-LE26**
	Programming cable	1.5	**160 786**	**PS1-ZK11-NULLMODEM-1,5M**
	Encoder plug	–	**552 274**	**NECC-S-S1G9-C2M**
	Plug types, comprising plug for power supply and plug for motor connection The plug range is included in the scope of delivery	–	**547 452**	**NEKM-C-1**

Ordering data – Plug-in cards

	Brief description	Part No.	Type
	Interface, for Profibus interface	**547 450**	**CAMC-PB**
	Interface, for DeviceNet interface	**547 451**	**CAMC-DN**
	Memory card, for data backup and firmware downloads	**547 453**	**CAMC-M-S**

Ordering data – Power supply units

	Brief description	Input voltage range [V AC]	Nominal output voltage [V DC]	Nominal output current [A]	Part No.	Type
	Power supply for motor controller	100 ... 240	24	5	**547 867**	**SVG-1/230VAC-24VDC-5A**
				10	**547 868**	**SVG-1/230VAC-24VDC-10A**
			48	5	**542 403**	**SVG-1/230VAC-48VDC-5A**
				10	**542 404**	**SVG-1/230VAC-48VDC-10A**
		400 ... 500		20	**542 405**	**SVG-3/400VAC-48VDC-20A**

Note

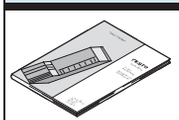
If a common power supply unit is used to supply the power section and the control section, the voltage tolerances for the supply to the control section cannot be adhered to at high braking energies. This can result in the destruction of the control section. Always use separate power supply units to supply the power section and the control section.

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

Motor controllers CMMS-ST, for stepper motors

Accessories

Ordering data – Software and documentation			
	Brief description	Part No.	Type
	Operator package contains: – CD-ROM – with user documentation for CMMS-ST, in the languages de, en, es, fr, it, sv – with configuration software FCT (Festo Configuration Tool), in the languages de, en – Brief description This package is included in the scope of delivery	**558 330**	**P.BP-CMMS-ST**

Ordering data – Documentation[1]					
	Language	Part No. Type		Part No. Type	
		For motor controller		Festo Handling and Positioning Profile (FHPP) for the motor controller family CMM...	
	DE	**554 339**	**P.BE-CMMS-ST-HW-DE**	**555 695**	**P.BE-CMM-FHPP-SW-DE**
	EN	**554 340**	**P.BE-CMMS-ST-HW-EN**	**555 696**	**P.BE-CMM-FHPP-SW-EN**
	ES	**554 341**	**P.BE-CMMS-ST-HW-ES**	**555 697**	**P.BE-CMM-FHPP-SW-ES**
	FR	**554 342**	**P.BE-CMMS-ST-HW-FR**	**555 698**	**P.BE-CMM-FHPP-SW-FR**
	IT	**554 343**	**P.BE-CMMS-ST-HW-IT**	**555 699**	**P.BE-CMM-FHPP-SW-IT**
	SV	**554 344**	**P.BE-CMMS-ST-HW-SV**	**555 700**	**P.BE-CMM-FHPP-SW-SV**
		For CANopen interface		For Profibus interface	
	DE	**554 351**	**P.BE-CMMS-CO-SW-DE**	**554 345**	**P.BE-CMMS-FHPP-PB-SW-DE**
	EN	**554 352**	**P.BE-CMMS-CO-SW-EN**	**554 346**	**P.BE-CMMS-FHPP-PB-SW-EN**
	ES	**554 353**	**P.BE-CMMS-CO-SW-ES**	**554 347**	**P.BE-CMMS-FHPP-PB-SW-ES**
	FR	**554 354**	**P.BE-CMMS-CO-SW-FR**	**554 348**	**P.BE-CMMS-FHPP-PB-SW-FR**
	IT	**554 355**	**P.BE-CMMS-CO-SW-IT**	**554 349**	**P.BE-CMMS-FHPP-PB-SW-IT**
	SV	**554 356**	**P.BE-CMMS-CO-SW-SV**	**554 350**	**P.BE-CMMS-FHPP-PB-SW-SV**
		For DeviceNet interface			
	DE	**554 357**	**P.BE-CMMS-FHPP-DN-SW-DE**		
	EN	**554 358**	**P.BE-CMMS-FHPP-DN-SW-EN**		
	ES	**554 359**	**P.BE-CMMS-FHPP-DN-SW-ES**		
	FR	**554 360**	**P.BE-CMMS-FHPP-DN-SW-FR**		
	IT	**554 361**	**P.BE-CMMS-FHPP-DN-SW-IT**		
	SV	**554 362**	**P.BE-CMMS-FHPP-DN-SW-SV**		

1) User documentation in paper form is not included in the scope of delivery

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

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

Product Range and Company Overview

A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
Comprehensive engineering support and on-site services



Complete Systems
Shipment, stocking and storage services

The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors, controllers & drives



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors and I/O devices

Supporting Advanced Automation... As No One Else Can!
Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



© Copyright 2008, Festo Corporation. While every effort is made to ensure that all dimensions and specifications are correct, Festo cannot guarantee that publications are completely free of any error, in particular typing or printing errors. Accordingly, Festo cannot be held responsible for the same. For Liability and Warranty conditions, refer to our "Terms and Conditions of Sale", available from your local Festo office. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Festo. All technical data subject to change according to technical update.

FSC Printed on recycled paper at New Horizon Graphic, Inc., FSC certified as an environmentally friendly printing plant.

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

Festo North America

United States

Customer Resource Center
502 Earth City Expy., Suite 125
Earth City, MO 63045

For ordering assistance, or to find
your nearest Festo Distributor,
Call: 1.800.99.FESTO
Fax: 1.800.96.FESTO
Email: customer.service@us.festo.com

For technical support,
Call: 1.866.GO.FESTO
Fax: 1.800.96.FESTO
Email: product.support@us.festo.com

Headquarters
Festo Corporation
395 Moreland Road
P.O. Box 18023
Hauppauge, NY 11788
www.festo.com/us

Sales Offices

Appleton
N. 922 Tower View Drive, Suite N
Greenville, WI 54942

Boston
120 Presidential Way, Suite 330
Woburn, MA 01801

Chicago
1441 East Business Center Drive
Mt. Prospect, IL 60056

Dallas
1825 Lakeway Drive, Suite 600
Lewisville, TX 75057

Detroit - Automotive Engineering Center
2601 Cambridge Court, Suite 320
Auburn Hills, MI 48326

New York
395 Moreland Road
Hauppauge, NY 11788

Silicon Valley
4935 Southfront Road, Suite F
Livermore, CA 94550

Design and Manufacturing Operations



East: 395 Moreland Road, Hauppauge, NY 11788



Central: 1441 East Business Center Drive, Mt. Prospect, IL 60056



West: 4935 Southfront Road, Suite F, Livermore, CA 94550

Mexico

Headquarters
Festo Pneumatic, S.A.
Av. Ceylán 3, Col. Tequesquinahuac
54020 Tlalnepantla, Edo. de México
Call: 011 52 [55] 53 21 66 00
Fax: 011 52 [55] 53 21 66 65
Email: festo.mexico@mx.festo.com
www.festo.com/mx



Canada

Headquarters
Festo Inc.
5300 Explorer Drive
Mississauga, Ontario L4W 5G4
Call: 1.905.624.9000
Fax: 1.905.624.9001
Email: info.ca@ca.festo.com
www.festo.com/ca



Festo Worldwide

Argentina Australia Austria Belarus Belgium Brazil Bulgaria Canada Chile China Colombia Croatia Czech Republic Denmark Estonia Finland France Germany Great Britain Greece Hong Kong Hungary India Indonesia Iran Ireland Israel Italy Japan Latvia Lithuania Malaysia Mexico Netherlands New Zealand Norway Peru Philippines Poland Romania Russia Serbia Singapore Slovakia Slovenia South Africa South Korea Spain Sweden Switzerland Taiwan Thailand Turkey Ukraine United States Venezuela

www.festo.com

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