

# **P**rogrammable Motion Control Handbook

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Published by the  
Programmable Motion Control Group  
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**National Electrical Manufacturers Association**

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Prepared by the  
National Electrical Manufacturers Association  
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Industrial Automation Division  
2101 L Street, N.W.  
Washington, D.C. 20037  
(202) 457-8400

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## Foreword: About NEMA

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This handbook was developed by the Programmable Motion Control Group of NEMA's Industrial Automation Division. With 600 firms that manufacture products in the United States, the National Electrical Manufacturers Association is one of the largest trade associations in the country. It is also among the oldest electrical trade groups in the USA, being able to trace its roots to the Electrical Manufacturers Alliance constituted in 1905. NEMA also serves as a clearing house for the application of new technologies, a forum for manufacturers, and a channel of communications between manufacturers and end users. The Industrial Automation Division, with 150 member companies, represents the group of firms having supplied the largest installed base of industrial automation equipment in America's plants.

Thus, it was only natural that the Industrial Automation Division form the Programmable Motion Control Group in 1989. The PMC Group provides an opportunity for diverse industry interests to help their customers understand this rapidly growing field. PMC Group objectives and programs include developing a market statistics data base, working with the U.S. Census Bureau to enhance government data collection, establishing end-user/supplier interchanges, providing current applications information to users, overseeing related domestic and international standards, and reducing international trade barriers.

The scope of the Group is to disseminate, support, and promote programmable motion control technology with special attention being given to the control elements of motion control systems and their interface with general controllers, sensory devices, actuators, and other related devices. Membership in NEMA's Programmable Motion Control Group is open to all firms that produce motion control products and software in the United States. Various levels of group participation exist, including opportunities for non-NEMA members to attend meetings and formulate market statistics programs.

With this first edition debut, this "Programmable Motion Control Handbook" represents the most comprehensive overview and general guide currently available to this field. It is intended to help the novice, smaller OEMs, and especially end-users who are interested in benefiting from this emerging technology. Large end-users and producers of this technology may find it will provide a baseline for discussions with fellow suppliers and

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