

## CMS Master Switches

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### Application

The type CMS joystick controller is both rugged and compact in design, yet offers excellent application versatility. CMS series joysticks are commonly utilized in material handling, process control, manufacturing, and on mobile equipment; especially where precise proportional and stepped control of AC or DC drives or electro hydraulics is desired.

The all plastic housing, and specially treated rugged metal components and fully booted shaft make this device suitable for use in corrosive environments. CMS switches are presently used in equipment located in petro-chemical, food plants, and for marine applications where corrosion is a significant problem.

Single and dual axis control is available as well as various handle functions. Both separate and simultaneous operation of each axis is achieved with standard and custom gate patterns. The double insulated design provides additional isolation for operator safety.

A large 3 11/16" x 3 11/16" legend plate is provided for custom engraving.

### Features

- Rugged booted construction
- Compact design
- Corrosion resistant components
- Double insulated construction
- Single and dual axis operation
- Standard and custom switching gates
- 5-0-5 detented steps
- 6 double pole 10A-240V field replaceable contacts (12 circuits each axis.)
- Optional potentiometer - each axis up to 2 3/4" diameter
- 3 million plus operations with spring return
- (P.F.C.) Optional Proportional Feathering Control electronics each axis
- Optional neutral normally closed contacts mounted in main housing
- Variety of handle actuated deadman functions
- Optional mechanical interlock to prevent inadvertent operation
- Panel mount or optional surface mount with NEMA4 or 12 enclosure.



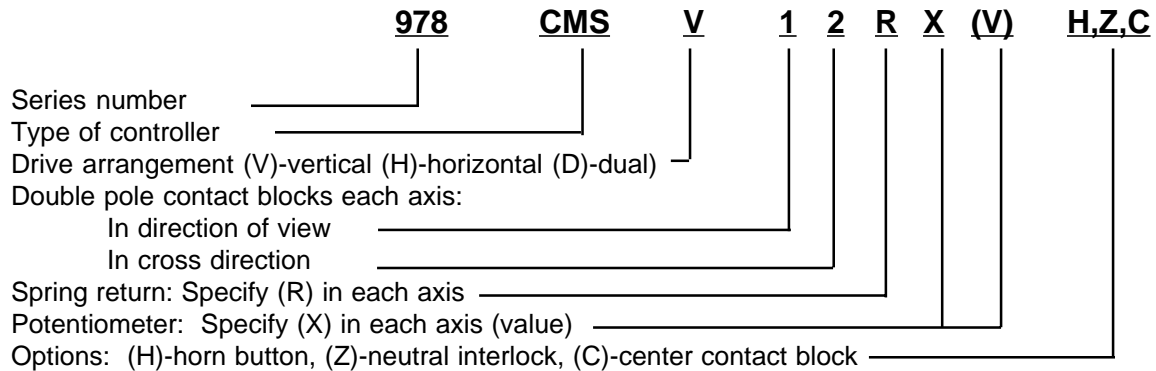
820 Lakeside Drive - Gurnee, IL 60031  
Ph: 847-855-9150 Fax: 847-855-9650  
800-374-8266

E-mail: [drive.sales@drivecon.com](mailto:drive.sales@drivecon.com)  
[www.drivecon.com](http://www.drivecon.com)

## CMS Ordering Information

- 5 7/8" shaft length, 2 piece handle, boot, and mounting plate supplied standard
- Various handle options for selection of handle operated deadman functions
- Contacts: each contact block supplied with 2 poles
- Main housing can be supplied with or without normally closed neutral contact.
- Contact factory to specify engraving, contact operation, detented positions required, gate patterns, and all other features standard and special.
- Potentiometers: 2 watt 1 million operations standard. Specify resistance and type required. (Consult factory for custom requirements)
- Electronics: (P.F.C.) Proportional Feathering Control electronics for required analog output signals available. Consult Drivecon.

## Ordering Example



## CMS Technical Data

- Operating Temperature: -40° to +70°C
- Detented Positions: 0 Neutral and 1-0-1 to 5-0-5 steps
- Gear ratio: 3.78:1 (Handle travel ± 37°, cam & potentiometer rotation ± 140°)
- Mechanical life: 3 million plus operations with spring return

## Electrical:

- Contacts: 6 double pole contact blocks per axis  
2 blocks per axis supplied standard without potentiometer  
3 contact blocks max. each axis with potentiometer (6 circuits)
- Terminals: M3.5 x 0.5 screw with saddle clamp
- Wire size: 18 AWG min. 12 AWG max.
- Switch rating: a) AC resistive 6 amps @ 240 volts  
b) AC inductive 4 amps @ 240 volts
- Max. switching capacity: Making: - 60 amps. Breaking: - 60 amps (0.7PF) 240V
- Electro mechanical life: Breaking AC current  
a) Resistive: 1 million operations @ 6 amps 240V  
10 million operations @ 2 amps 240V  
b) Inductive: 1 million operations @ 4 amps 240V  
10 million operations @ 1 amps 240V