

Data Sheet

# Control Handle

## MCHXXX Series

### Mobile machine control handle

The MCHXXX Single Axis Control Handle provides remote electrical actuation of Danfoss pumps/motors, and or other electrically actuated pump strokers for open loop control systems. The MCHXXX can function as a setpoint for analog or microprocessor-controlled systems for controlling position, speed, pressure, horsepower, or other dynamic parameters.

### User interface

Three mounting styles, with or without watertight case. Rugged components designed for the construction environment. High-torque handle actuation gives sure feel. Simple to install. Mechanical options include center-lock, spring-return, friction drag, bi-directional, uni-directional and optional wire harness with a variety of electrical connectors. Electrical characteristics are customized to the application.

### Reliable performance

A center-off micro switch can be specified and in with most MCHXXX models the center-off switch is factory prewired.

### Serviceability

The MCHXXX design allows for easy access to parts that require service.

### Features

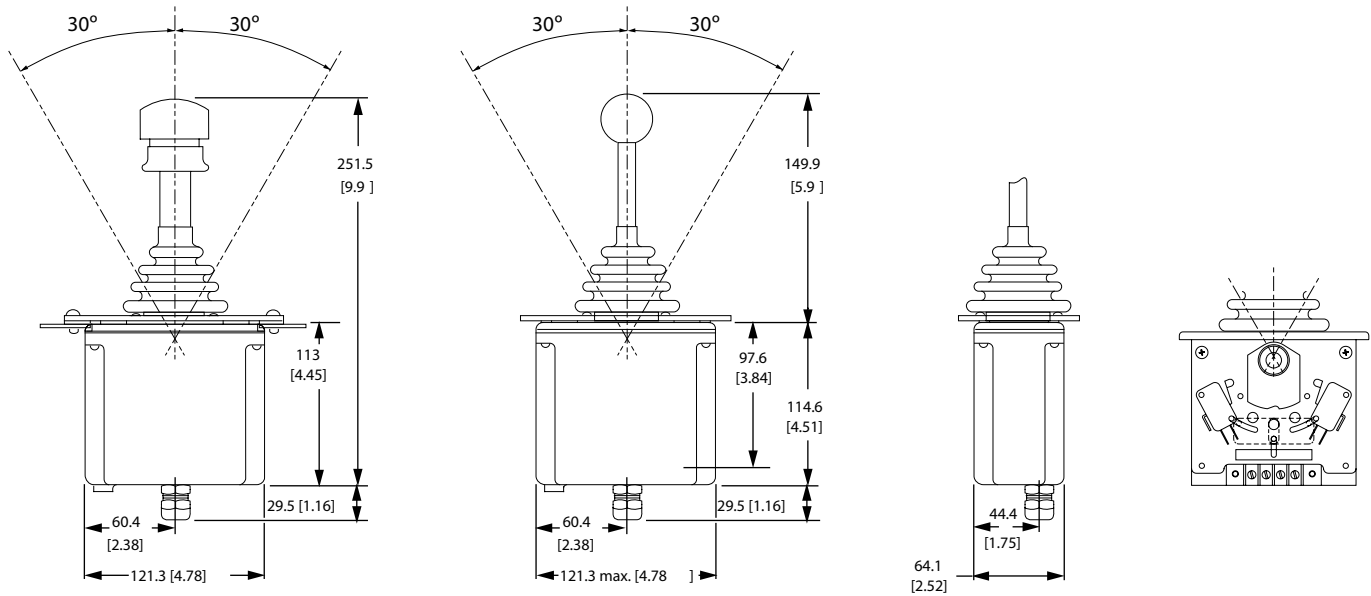
- One or two potentiometer sensors
- Single axis
- Shaft movement options:
  - Spring return, and with one spring force
  - Friction hold with adjustment
- Environmental protection:
  - Tested to NEMA 4 or equivalent to IP 65)
- Electrical connection:
  - Terminal strip (standard configuration)
  - Wiring harness (pigtail) with optional connector
- Grip options:
  - Ball
  - Center lock
  - Push-button
  - Rocker switch



Comprehensive technical literature online  
at [powersolutions.danfoss.com](http://powersolutions.danfoss.com)

**Common mounting options**

Dimensions in mm [in]



**Specifications**

*Electrical characteristics*

<b>Sensor type</b>	Potentiometer (Pot)
	Optional Dual Pot
<b>Supply voltage (Vs)</b>	11 to 15 Vdc (12 Volt models)
	22 to 30 Vdc (24 Volt models)
	0.5 to 4.5 Vdc (5.0 Volt models)
<b>Output analog</b>	0 to 3 Vdc (0 to 100 mA) typical EDC
	0.5 to 4.5 Vdc typical controller
<b>Base neutral and direction microswitch current capability</b>	3 Amps inductive at 28 Vdc

*Mechanical characteristics*

<b>Lever mechanical angle</b>	±30° (bi-directional models)
	+0 to 60° (uni-directional models)
<b>Spring torque</b>	1.2 ± 0.4 N·m [11 ± 4 lbf·in] at center breakaway
	2.0 ± 0.7 N·m [18 ± 6 lbf·in] at full stroke
<b>Detent torque (over and above friction drag)</b>	0.1 N·m [10 lbf·in]
<b>Friction drag</b>	1.5 ± 0.3 N·m [13.5 ± 3 lbf·in]
	Friction is adjusted at the brake with a 5/32 inch internal hex wrench and 3/8 inch open-end hex wrench

*Environmental parameters*

<b>Operating temperature (ambient)</b>	-34°C to +66°C [-30°F to +150°F]
<b>Storage temperature</b>	-40°C to +77°C [-40°F to +170°F]
<b>Ingress protection (IP) rating</b>	NEMA 4 specifications (IP 65 equivalent)

**Ordering information**

*Ordering information reference documentation*

<b>MCHXXX Control Handle</b>	11022667
<b>Technical Information</b>	

*Additional replacement parts reference documentation*

MCH Control Handle Addition or Replacement of Parts Installation Guide	BLN-95-9057
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*Related items part numbers*

<b>Cable assembly (16 inch) with 4-pin Packard Weather Pack Shroud connector</b>	11028299
<b>Cable assembly (12 inch) with 3-pin Packard Weather Pack Shroud connector</b>	K31213
<b>Mating connector</b>	K03384

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