

Closed Loop DC Speed Control with PID

OMDC-MD Plus Series



- ✓ 1/50 to 2.0 HP Range
- ✓ Universal Power Supply Supports 85 to 265 Vac Input
- ✓ Available with NEMA 4X (IP66) Enclosure or 1/8 or 1/4 DIN Cutout with NEMA 4X (IP66) Faceplate
- ✓ Front Panel Field-Programming (With Lock-Out Jumper)
- ✓ Target and Actual Speeds Can Be Any Engineering Unit of Measure
- ✓ Two Alarm Relay Outputs (Form C, 5 A @ 250 Vac)
- ✓ Large 12.7 mm (1/2") LED Display
- ✓ Master/Follower Modes
- ✓ Displays Set Point or Actual Running Speed
- ✓ Adjustable PID Settings

The OMDC-MD Plus Series DC motor controller is a field-programmable closed loop DC drive system employing an advanced velocity-form PID algorithm for accurate and responsive control. The OMDC-MD Plus control system also features a unique, isolated 4 to 20 mA input and output for easy integration with existing process control systems. The OMDC-MD Plus Series DC motor control is ideally suited for metering pump applications by efficiently combining

OMDC-MD50P-420
DC speed control
with PID, 10 AMP.



OMDC-MD40P-420
DC speed control
with PID, 5 AMP,
shown smaller than
actual size.



all of the application requirements into a single compact package. The OMDC-MD Plus Series DC motor control system not only accepts a 4 to 20 mA signal to control the pump speed, but it also provides a 4 to 20 mA output signal back to the process control that is proportional to the actual running speed. Both the input and output signals are isolated from each other and from the control itself. The OMDC-MD Plus control also has two field-programmable form C relay contacts that can be set to indicate a wide variety of conditions such as the pump is running, a "fault" condition exists, and many other events.

SPECIFICATIONS

- Temperature:** -10 to 45°C (14 to 113°F)
- AC Input Voltage:** 85 to 265 Vdc
- Input Frequency:** 50/60 Hz
- Overload Capacity:** 200% for 1 min
- Transducer Signal Input:** 0-5 to 0-24 Vdc
- On-Board Transducer Power Supply:** 5 Vdc, 50 mA
- 4 to 20 mA Input/Output Accuracy:** ±1%
- Faceplate Dimensions:**
 - OMDC-MD40P-420:** 115 W x 58 H x 117 mm D (4.539 x 2.289 x 4.625")
 - OMDC-MD50P-420:** 115 W x 106 H x 117 mm D (4.539 x 4.179 x 4.625")
- Enclosure Dimensions:**
 - OMDC-MD50E-420:** 140 W x 188 H x 70 mm D (5.530 x 7.4 x 2.75")

To Order

MODEL NO.	PHYSICAL	MAX ARM DC AMPS	MAX HP	INPUT	OUTPUT
OMDC-MD40P-420	1/8 DIN panel mount	5	1/2	120 Vac	0 to 90 Vdc
			1	240 Vac	0 to 180 Vdc
OMDC-MD50P-420	1/4 DIN panel mount	10	1	120 Vac	0 to 90 Vdc
			2	240 Vac	0 to 180 Vdc
OMDC-MD50E-420	Stand-alone enclosure	10	1	120 Vac	0 to 90 Vdc
			2	240 Vac	0 to 180 Vdc
OPTIONAL SENSOR					
OMDC-PU-40E	Shaft mounted pick-up sensor, 20 pulses per revolution				

Comes complete with operator's manual.

Ordering Examples: **OMDC-MD40P-420**, digital closed loop speed control for max 1 HP motor with max 5 Arm Amp, and **OMDC-PU-40E**, shaft mounted pick-up sensor with 20 pulses per revolution.

OMDC-MD50P-420, digital closed loop speed control for max 2 HP motor with max 10 Arm Amp, and **OMDC-PU-40E**, shaft mounted pick-up sensor with 20 pulses per revolution.