

Description

The MC1XDZC02-HP1 mounting card is designed to host a DZC or DZXC series DigiFlex® Performance™ digital servo drive. The drive plugs into the bottom side of the mounting card, providing a compact assembly with connectors and switches readily accessible. The MC1XDZC02-HP1 is ideal for prototyping and integrating a DZC or DZXC series digital servo drive in your machine.

The MC1XDZC02-HP1 utilizes side-entry right angle fixed screw terminals for the Motor and Power connectors. For vertical-entry quick-disconnect Motor and Power connections use the MC1XDZC02-QD mounting card.

The MC1XDZC02-HP1 is designed to host DZC and DZXC drive models with a 60 amp peak current rating (-060L080 models). Drives with a lower peak current rating may be used with the MC1XDZC02-HP1, although *ADVANCED* Motion Controls recommends the MC1XDZC02 or MC1XDZC02-QD for other drive models.

Drive Compatibility*

DZ (Standard Environment)	DZX (Extended Environment)
80 V Models	80 V Models
60A	40A
40A	15A
20A	8A
12A	

* For 175 V DZ drive models, use MC1XDZC02 or MC1XDZC02-QD mounting card models.



Features

- ▲ Mounts DZC- and DZXC-Series DigiFlex® Performance™ Digital Servo Drives
- ▲ Single Axis Mounting Card
- ▲ On-board Signal Conditioning
- ▲ On-board 8-position DIP Switch for Configuration and Communication Settings
- ▲ On-board CANopen Transceiver for CANopen Communication

DESIGNED FOR

- DZCANTE-060L080

ADDITIONAL DRIVES SUPPORTED

- DZCANTE-012L080
- DZCANTE-020L080
- DZCANTE-040L080
- DZXCANTE-008L080
- DZXCANTE-015L080
- DZXCANTE-040L080

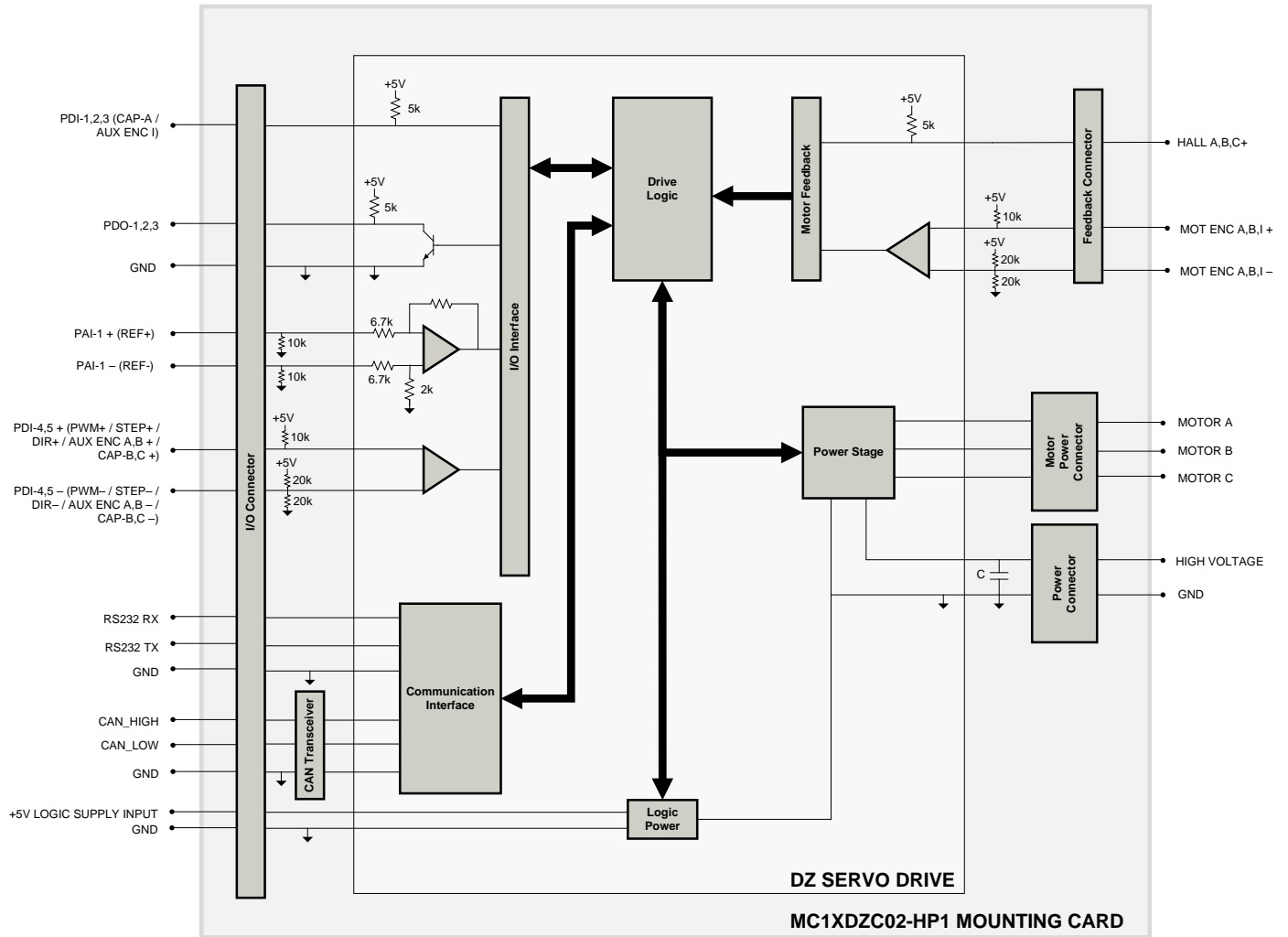
FEEDBACK SUPPORTED

- Incremental Encoder
- Hall Sensors
- Auxiliary Incremental Encoder

COMPLIANCES & AGENCY APPROVALS

- RoHS

BLOCK DIAGRAM & SPECIFICATION SUMMARY



Mechanical Specifications	
Mounting Signal Connector: P1	30-pin, dual-row, 2.54 mm pitch socket
Mounting Power Connector: P2	24-pin, dual-row, 2.54 mm pitch socket
Mounting Power Connector: P3	24-pin, dual-row, 2.54 mm pitch socket
I/O Connector: P4*	16-port, dual-row, 2.00 mm spaced plug terminal
Communication Connector: P5*	10-port, dual-row, 2.00 mm spaced plug terminal
Feedback Connector: P6*	12-port, dual-row, 2.00 mm spaced plug terminal
Motor Power Connector: P7	4-port, 5.08 mm spaced fixed screw terminal
Power Connector: P8	3-port, 5.08 mm spaced fixed screw terminal
Bus Capacitance	470 μ F / 100 V
Size (L x W x H)	2.5 x 3.0 x 1.2 inches
Weight	50.7 g (1.8 oz)

*** Mating Connector Kit**

Mating connector housing and crimp pins can be ordered as a kit using *ADVANCED* Motion Controls part number **KC-MC1XDZ02**. This includes mating connector housing and crimp style contacts for the I/O, Feedback, and Communication connectors. The recommended tool for crimping the contacts is Molex part number **63811-6300**.

PIN FUNCTIONS

P1 – Mounting Signal Connector

This connector mates directly to the drive. For pin functions refer to the drive datasheet.

P2 – Mounting Power Connector

This connector mates directly to the drive. For pin functions refer to the drive datasheet.

P3 – Mounting Power Connector

This connector mates directly to the drive. For pin functions refer to the drive datasheet.

P4 – I/ O Connector

Pin	Name	Description	I/ O
1	+5V LOGIC	+5V Logic Supply Input	I
2	GND	Ground	GND
3	PDI-3	Programmable digital input 3, or High Speed Capture A, or Aux Enc I	I
4	PAI-1 + (REF +)	Differential reference signal input, 12-bit resolution. Can also be used as programmable analog input 1.	I
5	PDI-2	Programmable digital input 2	I
6	PAI-1 - (REF -)	Differential reference signal input, 12-bit resolution. Can also be used as programmable analog input 1.	I
7	PDI-1	Programmable digital input 1	I
8	PDO-3	Programmable digital output 3	O
9	GND	Ground	GND
10	PDO-2	Programmable digital output 2	O
11	PDI-5 +	Programmable, differential digital input or Direction+ or Aux Enc B+ or Capture C+	I
12	PDO-1	Programmable digital output 1	O
13	PDI-5 -	Programmable, differential digital input or Direction- or Aux Enc B- or Capture C-	I
14	PDI-4 +	Programmable differential digital input, or PWM+ or Step+ or Aux Enc A+ or Capture B+	I
15	GND	Ground	GND
16	PDI-4 -	Programmable differential digital input, or PWM- or Step- or Aux Enc A- or Capture B-	I

P5 – Communication Connector

Pin	Name	Description	I/ O
1	RESERVED	Reserved	-
2	RESERVED		-
3	RS232 RX	Receive Line (RS-232)	I/O
4	RS232 TX	Transmit Line (RS-232)	I/O
5	GND	Ground	GND
6	GND		GND
7	CAN_L IN	CAN_L bus line (dominant low)	I/O
8	CAN_L OUT		I/O
9	CAN_H IN	CAN_H bus line (dominant high)	I/O
10	CAN_H OUT		I/O

P6 – Feedback Connector			
Pin	Name	Description	I / O
1	HALL B	Commutation Sensor Inputs.	I
2	HALL A	Commutation Sensor Inputs.	I
3	MOT ENC A+	Differential Encoder A Channel Input	I
4	HALL C	Commutation Sensor Inputs.	I
5	MOT ENC A-	Differential Encoder A Channel Input (for single-ended signals use only the positive input)	I
6	GND	Ground	GND
7	+5V OUT	+5V Encoder Supply Output	O
8	MOT ENC B+	Differential Encoder B Channel Input	I
9	MOT ENC I+	Differential Encoder Index Input	I
10	MOT ENC B-	Differential Encoder B Channel Input (for single-ended signals use only the positive input)	I
11	MOT ENC I-	Differential Encoder Index Input (for single-ended signals use only the positive input)	I
12	GND	Ground	GND

P7 – Motor Power Connector			
Pin	Name	Description	I / O
1	MOTOR A	Motor phase A	O
2	MOTOR B	Motor phase B	O
3	MOTOR C	Motor phase C	O
4	PE	Protective Earth Ground (motor cable shield)	PE

P8 – Power Connector			
Pin	Name	Description	I / O
1	PE	Protective Earth Ground	PE
2	HIGH VOLTAGE	DC Power Input	I
3	POWER GND	Power Ground (Common with Signal Ground)	GND