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AMETEK®
ADVANCED MOTION SOLUTIONS

Haydon kerk Motion Solutions®

Motor Drives:
IDEA™ Drive / Stepper Motor Programmable Motor Controller

Haydon® IDEA™ Drives PCM4806E/PCM4826E and ACM4806E/ACM4826E – stepper motor drives featuring a fully programmable control unit that uses an intuitive patent-pending Graphic User Interface (GUI). The IDEA Drive technology is available in several different configurations including an external programmable drive and controller, or integrated with a linear actuator to form a complete package of motor, actuator, and programmable drive.

IDEA™ Drive software is simple to use with on-screen buttons and easy-to-understand programming guides.

The software program generates motion profiles directly into the system and also contains a "debug" utility allowing line-by-line execution of a motion program for easy troubleshooting.

Specifications

IDEA Drive Part Number	PCM4806E	PCM4826E	ACM4806E	ACM4826E
Drive Input Voltage Range	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC
Max Drive Current / Phase	0.6 A rms	2.6 A rms	0.6 A rms	2.6 A rms
Current Boost Capability	Optional 30% current boost capability during ramping		Optional 30% current boost capability during ramping	
Communication	**USB (mini B)**		**RS-485**	
Step Modes	Full, Half, 1/4, 1/8, 1/16, 1/32, 1/64		Full, Half, 1/4, 1/8, 1/16, 1/32, 1/64	
Digital I/O Voltage Range	5 to 24 VDC		5 to 24 VDC	
Digital Inputs	4		4	
Digital Input Max Current	8 mA (each)		8 mA (each)	
Digital Outputs (Sinking)	4		4	
Digital Output Max Current (Sinking)	200 mA		200 mA	
Maximum Temperature	70°C measured at heat sink		70°C measured at heat sink	
Program Storage Size	85 Kbytes		85 Kbytes	
Program Storage Memory Type	Flash		Flash	
Maximum Number Stored Programs	85 - referenced by 10 character program names		85 - referenced by 10 character program names	
Position Counter Range	64 bit		64 bit	
Ramping	Trapezoidal		Trapezoidal	
Interrupt Sources	4 inputs (rising, falling or both edges) Internal Position Counter (when reaching a programmed position)		4 inputs (rising, falling or both edges) Internal Position Counter (when reaching a programmed position)	
Max. # Drives per Communication Bus	1		225	

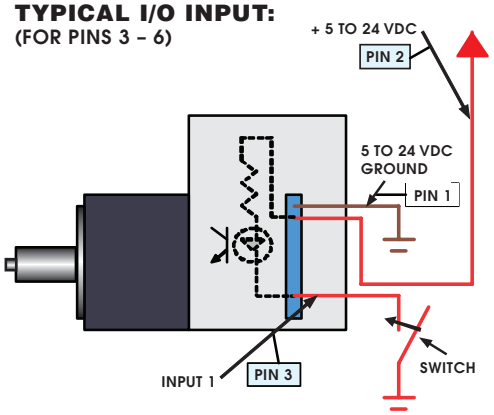
Features include:

- **RoHS Compliant**
- **Stand-alone unit or integrated with Haydon linear actuators / rail systems**
- **Programming done through Graphic User Interface (GUI)**
- **Automatic population of motor and drive parameters**
- **Programmable Speed / Current / Accel-Decel / Current Boost / Interrupts / I/O**
- **Encoder Input / Stall Detection with Compensation / Position Verification**
- **USB or RS-485 Communication protocols**
- **Movement profile plotter**
- **Interactive program debug feature**

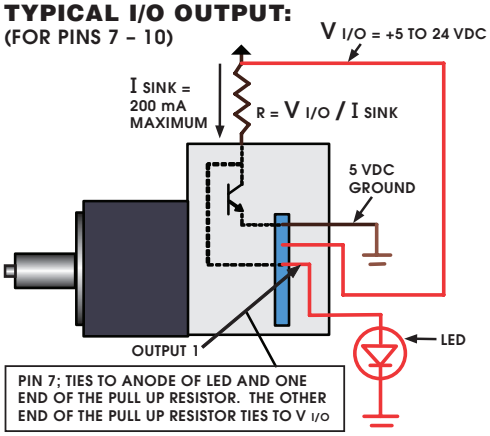
Accessories	Part No.
USB Cable (A to Mini B), 2 meters	56-1346
Power Cable, 1 meter	56-1348
I/O Cable, 1 meter	56-1352
RS-485 Cable, 1 meter	56-1536-4
Encoder Cable, 0.3 meter	56-1715
Software Installation Disk	55-010
Motor Connector Assembly	56-1453
USB to RS-485 Adapter	UTR4852

IDEA™ Drive Stepper Motor Controller Typical I/O Input and I/O Output

TYPICAL I/O INPUT:
(FOR PINS 3 – 6)



TYPICAL I/O OUTPUT:
(FOR PINS 7 – 10)



Engineering Drawings: IDEA™ Drive PCM4806E and PCM4826E

Dimensions = (mm) inches

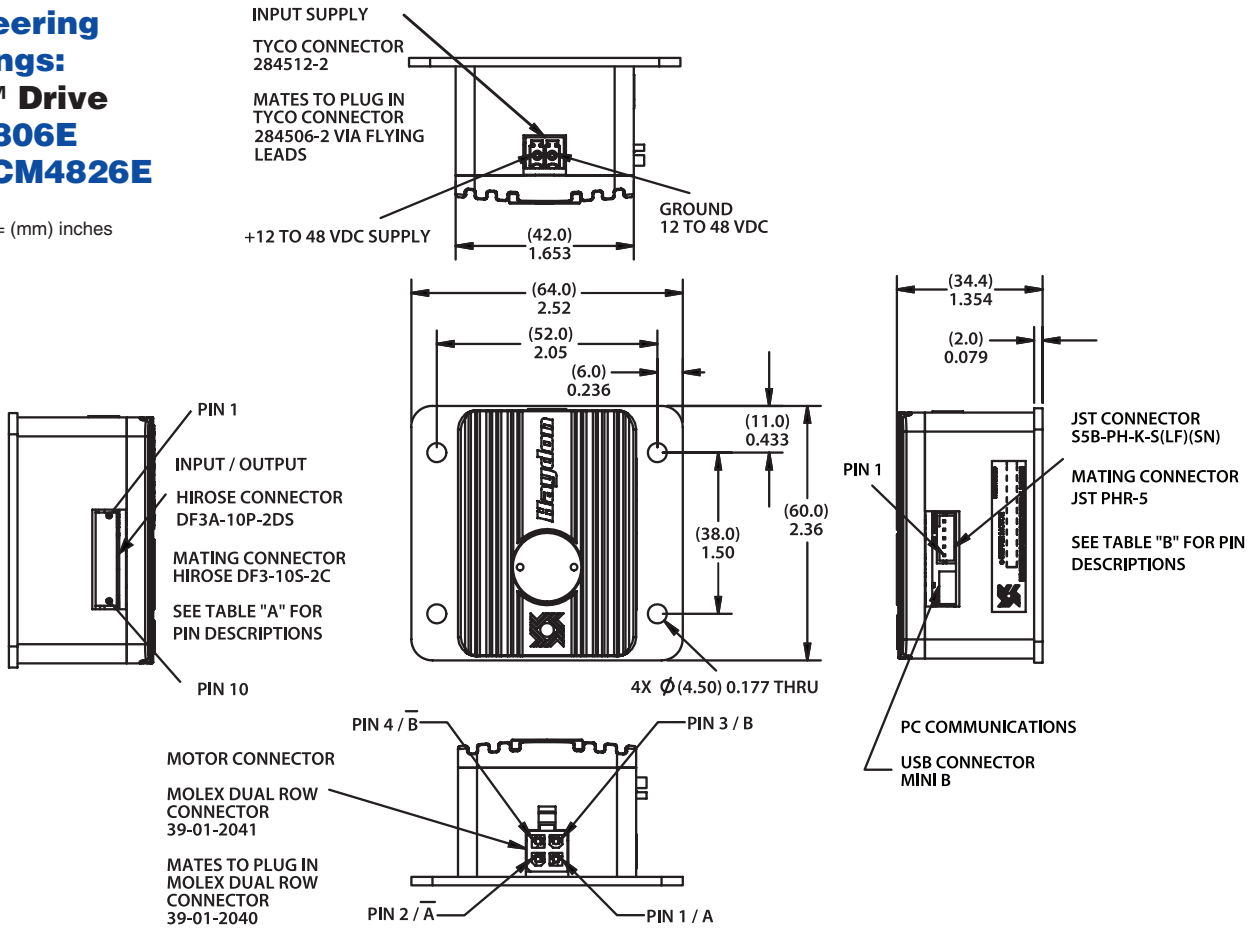


TABLE "A"

PIN POSITION	DESCRIPTION	NOTES
PIN 1	GROUND I/O SUPPLY	5 TO 24 VDC
PIN 2	+ I/O SUPPLY	5 TO 24 VDC
PIN 3	INPUT 1	
PIN 4	INPUT 2	
PIN 5	INPUT 3	
PIN 6	INPUT 4	
PIN 7	OUTPUT 1	
PIN 8	OUTPUT 2	
PIN 9	OUTPUT 3	
PIN 10	OUTPUT 4	

TABLE "B"

PIN #	DESCRIPTION
1	+5V
2	GROUND
3	INDEX / NO CONNECTION
4	"B" CHANNEL
5	"A" CHANNEL

Engineering Drawings:
IDEA™ Drive ACM4806E and ACM4826E Stepper Motor Controller

Dimensions = (mm) inches

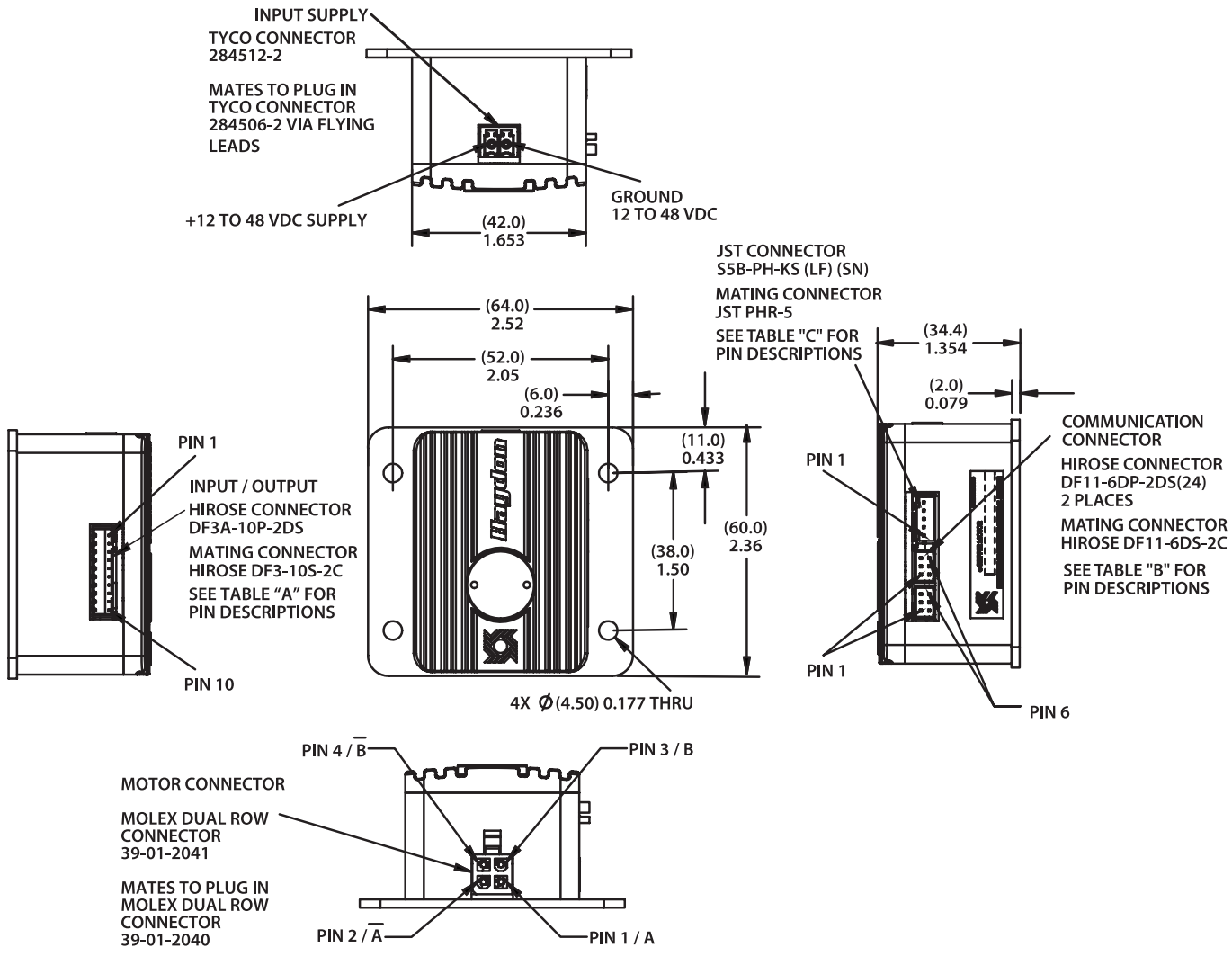


TABLE "A"

PIN POSITION	DESCRIPTION	NOTES
PIN 1	GROUND I/O SUPPLY	5 TO 24 VDC
PIN 2	+ I/O SUPPLY	5 TO 24 VDC
PIN 3	INPUT 1	
PIN 4	INPUT 2	
PIN 5	INPUT 3	
PIN 6	INPUT 4	
PIN 7	OUTPUT 1	
PIN 8	OUTPUT 2	
PIN 9	OUTPUT 3	
PIN 10	OUTPUT 4	

TABLE "B"

PIN #	DESCRIPTION
1	Y / NON-INVERTING DRIVER OUTPUT
2	Z / INVERTING DRIVER OUTPUT
3	GROUND
4	GROUND
5	A / NON-INVERTING RECEIVER INPUT
6	B / INVERTING RECEIVER INPUT

TABLE "C"

PIN #	DESCRIPTION
1	+5 V
2	GROUND
3	INDEX / NO CONNECTION
4	"B" CHANNEL
5	"A" CHANNEL