

Wiring Connections

6K to HPD-N : Torque or Velocity Mode

HPD-N		6K		71-017003-10
Connector	Pin	DB15	Function	Color
X2	1	3	CMD+	Black
X2	2	6	CMD-	Red
X3	11	7	SHUTDOWN NO	Brown
X3	19	14	COM	Yellow
X2	11	5	DRIVE FAULT	Green

6K to HPD-N : Feedback Connection for Torque or Velocity Mode

HPD-N		6K	
Connector	Pin	DB9	Function
X7	1	2	A+
X7	2	3	A-
X7	3	4	B+
X7	4	5	B-
X7	5	6	Z+
X7	6	7	Z-
X7	7	9	ISO GND
X7	8	N/A	NC
X7	9	N/A	NC

6K to HPD-N : Step & Direction Mode

HPD-N		6K	
Connector	Pin	DB15	Function
X6	1	1	STEP+
X6	2	9	STEP-
X6	3	2	DIR+
X6	4	10	DIR-
X3	11	7	SHUTDOWN NO
X3	19	14	COM
X2	11	5	DRIVE FAULT

HPD-N : M Series Motor Resolver Cable Connection

HPD-N			M Motor Resolver Cable
Connector	Pin	Function	Color
X1	1	PTC +	Yellow/Red
X1	2	PTC -	Yellow/Red
X1	3	EXC+	Brown
X1	4	EXC-	White
X1	5	SIN+	Green
X1	6	SIN-	Blue
X1	7	COS+	Black
X1	8	COS-	Red
X1	9	0V	Shield
X1	10	0V	NC

HPD 2N - 24N : Motor Power Cable Connection

HPD-N			Motor Power Cable
Connector	Pin	Function	Color
X4	1	L1	
X4	2	L2	
X4	3	L3	
X4	4	U	Black #1
X4	5	V	Black #2
X4	6	W	Black #3
		Earth	Green/Yellow

HPD 25N - 67N : Motor Power Cable Connection

HPD-N			Motor Power Cable
Connector	Pin	Function	Color
X4		L1	
X4		L2	
X4		L3	
X4		U	Black #1
X4		V	Black #2
X4		W	Black #3
		Earth	Green/Yellow

NOTE: If connecting a motor brake or external power dissipation module to the HPD-N, please contact the Compumotor Applications Department at (800) 358-9070.

HPD-N Quick Reference Guide



HPD-N Series Servo Drives

Compumotor Division
Parker Hannifin Corporation
p/n 88-020929-01B



Compumotor Motor / HPD-N parameters

The two procedures below are to be used if running the HPD-N drive in Torque or Velocity mode. Please refer to the *HPD-N User's Manual* for all other modes or for returning the drive to factory defaults. **HPD-N parameters should be set in the order listed below.** PR16, PR17, and PR18 are tuning parameters for Torque and Velocity mode, and their Values are for an unloaded motor. They may need to be adjusted for a loaded motor. **If a Value below is left blank, refer to the specific motor parameters on the following page.**

Torque Mode Operation

Parameter	Value	Default	Description
Pb. 99.6	1	0	Extended Menu Enable
Pr. 33		50.0	Continuous Motor Current (rms) as % of Peak Drive Current
Pr. 19		100.0	Peak Motor Current (rms) as % of Peak Drive Current
Pr. 29	8	8	# of Motor Poles
Pr. 32		3200	Rated Speed, RPM
Pr. 16	35	120	Stiffness of the Speed Regulator
Pr. 17	400	2000	Damping of the Speed Regulator
Pr. 18	1	1	Bandwidth of the Speed Regulator
Pb. 99.15	"donE"	N/A	Save Parameters
Pb. 40.2	0	0	User/Reserved Reference Selection
Pr. 31	1	0	Operating Mode (Torque Mode = 1)
Pb. 99.11	"donE"	N/A	Set Default Parameters for Operating Mode
Pr. 2	1000	3000	Analog Reference Scale
Pr. 50	User defined	3000	Maximum Speed, RPM
Pb. 40.0	0	0	First or Second Speed Reference Full Scale Value
Pb. 40.12	0	0	Digital/Analog Reference Selector
Pb. 40.2	1	0	User/Reserved Reference Selection
Pb. 99.15	"donE"	N/A	Save Parameters

Velocity Mode* Operation

Parameter	Value	Default	Description
Pb. 99.6	1	0	Extended Menu Enable
Pr. 33		50.0	Continuous Motor Current (rms) as % of Peak Drive Current
Pr. 19		100.0	Peak Motor Current (rms) as % of Peak Drive Current
Pr. 29	8	8	# of Motor Poles
Pr. 32		3200	Rated Speed, RPM
Pb. 99.15	"donE"	N/A	Save Parameters
Pb. 40.2	0	0	User/Reserved Reference Selection
Pr. 31	0	0	Operating Mode (Velocity Mode = 0)
Pb. 99.11	"donE"	N/A	Set Default Parameters for Operating Mode
Pr. 2	User defined**	3000	Analog Reference Scale
Pr. 16	35	120	Stiffness of the Speed Regulator
Pr. 17	400	2000	Damping of the Speed Regulator
Pr. 18	1	1	Bandwidth of the Speed Regulator
Pb. 40.0	0	0	First or Second Speed Reference Full Scale Value
Pb. 40.12	0	0	Digital/Analog Reference Selector
Pb. 99.15	"donE"	N/A	Save Parameters

* Drive ships from the factory in velocity mode

* Example - Pr.2 = 1000, 10 V = 1000 rpm

M1053K		Parameter
Poles	8	Pr29
Resolver offset	0.00	Pr30
Rated speed + 500	5500	Pr32
Continuous current (%)	44.90	Pr33 (HPD16N)*
Peak current (%)	100.00	Pr19 (HPD16N)*

M1054K		Parameter
Poles	8	Pr29
Resolver offset	0.00	Pr30
Rated speed + 500	5500	Pr32
Continuous current (%)	34.90	Pr33 (HPD24N)*
Peak current (%)	100.00	Pr19 (HPD24N)*

M1453L		Parameter
Poles	8	Pr29
Resolver offset	0.00	Pr30
Rated speed + 500	3500	Pr32
Continuous current (%)	54.30	Pr33 (HPD35N)*
	28.78	Pr33 (HPD67N)*
Peak current (%)	100.00	Pr19 (HPD35N)*
	86.30	Pr19 (HPD67N)*

M1454N		Parameter
Poles	8	Pr29
Resolver offset	0.00	Pr30
Rated speed + 500	3500	Pr32
Continuous current (%)	58.75	Pr33 (HPD45N)*
	39.36	Pr33 (HPD67N)*
Peak current (%)	100.00	Pr19 (HPD45N)*
	100.00	Pr19 (HPD67N)*

M1455P		Parameter
Poles	8	Pr29
Resolver offset	0.00	Pr30
Rated speed + 500	3500	Pr32
Continuous current (%)	67.16	Pr33 (HPD45N)*
	45.00	Pr33 (HPD67N)*
Peak current (%)	100.00	Pr19 (HPD45N)*
	100.00	Pr19 (HPD67N)*

M2052P		Parameter
Poles	8	Pr29
Resolver offset	0.00	Pr30
Rated speed + 500	2200	Pr32
Continuous current (%)	64.31	Pr33 (HPD45N)*
	43.09	Pr33 (HPD67N)*
Peak current (%)	100.00	Pr19 (HPD45N)*
	100.00	Pr19 (HPD67N)*

M2053R		Parameter
Poles	8	Pr29
Resolver offset	0.00	Pr30
Rated speed + 500	3500	Pr32
Continuous current (%)	60.14	Pr33 (HPD67N)*
Peak current (%)	100.00	Pr19 (HPD67N)*

M2054S		Parameter
Poles	8	Pr29
Resolver offset	0.00	Pr30
Rated speed + 500	3500	Pr32
Continuous current (%)	77.36	Pr33 (HPD67N)*
Peak current (%)	100.00	Pr19 (HPD67N)*

* Please contact factory if using a different HPD-N drive.

HPD-N Alarm Codes

0	No Alarm	6	Drive Overheating
1	Overvoltage	7	External Alarm
2	Undervoltage	8	Auxiliary Alarm
3	Overcurrent	9	Dig Output Overcurrent
4	Resolver Alarm	10	PLC Check-Sum
5	Motor Overheating	11	Parameter Check-Sum