Elwood High Performance Motors

SX-Series Motors to Emerson/Control Techniques Drive Wiring:

Prepared By: John Hoeppner

Sept. 6, 2011

CAUTION (READ FIRST): To prevent accidental damage to the motor, set *all* drive parameters for continuous and peak current(s) below the motor's continuous current rating and disconnect the motor's output shaft from mechanical linkages *prior to* enabling power to the motor. Then, after proper servo control is established between the drive and motor, set drive current parameters to levels appropriate for the motor, drive, and application.

Motor Power	
Drive Terminal	Motor Lead Color
P.E.	Green
U	Black
V	Red
W	White

Incremental Encoder with Complemented Commutation Signals		
Feedback Connector Contact Number	Signal Name	Motor Cable Conductor Color
1	OUTPUT A	WHITE W/ GREEN
2	OUTPUT A'	GREEN W/ WHITE
3	OUTPUT B	WHITE W/ BLUE
4	OUTPUT B'	BLUE W/ WHITE
5	OUTPUT Z	WHITE W/ ORANGE
6	OUTPUT Z'	ORANGE W/ WHITE
7	OUTPUT U	WHITE W/ GRAY
8	OUTPUT U'	GRAY W/ WHITE
9	OUTPUT V	WHITE W/ BROWN
10	OUTPUT V'	BROWN W/ WHITE
11	OUTPUT W	RED W/ ORANGE
12	OUTPUT W'	ORANGE W/ RED
13	+ VDC	RED W/ BLUE
14	COMMON	Blue w/ Red & Blue Thermistor
15	Th	Blue Thermistor
Connector Case	SHIELD	CABLE DRAIN WIRE

* Be sure to connect the secondary ground at the rear cover of the motor to the machine's single-point earth ground (P.E.).

** Encoder Phase Angle (for PowerTools Pro): 150deg (nominal)

Elwood High Performance Motors

SX-Series Motors to Emerson/Control Techniques Drive Wiring:

Prepared By: John Hoeppner

April. 25, 2014

CAUTION (READ FIRST): To prevent accidental damage to the motor, set *all* drive parameters for continuous and peak current(s) below the motor's continuous current rating and disconnect the motor's output shaft from mechanical linkages *prior to* enabling power to the motor. Then, after proper servo control is established between the drive and motor, set drive current parameters to levels appropriate for the motor, drive, and application.

Motor Power	
Drive Terminal	Motor Lead Color
P.E.	Green
U	Black
V	Red
W	White

HIPERFACE (Sick/Stemann) Absolute Encoder		
Feedback Connector Contact Number	Signal Name	Motor Cable Conductor Color
1	+ COS	WHITE W/ GREEN
2	REFCOS	GREEN W/ WHITE
3	+ SIN	WHITE W/ ORANGE
4	REFSIN	ORANGE W/ WHITE
5	DATA +	WHITE W/ BROWN
6	DATA -	BROWN W/ WHITE
7	N/A	N/C
8	N/A	N/C
9	N/A	N/C
10	N/A	N/C
11	N/A	N/C
12	N/A	N/C
13	+ VDC	WHITE W/ BLUE
14	COMMON	Blue w/ White & Blue Thermistor
15	Th	Blue Thermistor
Connector Case	SHIELD	CABLE DRAIN WIRE

* Be sure to connect the secondary ground at the rear cover of the motor to the machine's single-point earth ground (P.E.).

** Encoder Phase Angle (for PowerTools Pro): 150deg (nominal)

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Motor Power	
Drive Terminal	Motor Lead Color
P.E.	Green
U	Black
V	Red
W	White

EnDat (Heidenhain) Absolute Encoder		
Feedback Connector Contact Number	Signal Name	Motor Cable Conductor Color
1	OUTPUT A+	WHITE W/ BLUE
2	OUTPUT A-	BLUE W/ WHITE
3	OUTPUT B+	WHITE W/ ORANGE
4	OUTPUT B-	ORANGE W/ WHITE
5	DATA	GRAY W/ WHITE
6	DATA-	WHIITE W/ GRAY
7	N/A	N/C
8	N/A	N/C
9	N/A	N/C
10	N/A	N/C
11	CLOCK	WHITE W/ BROWN
12	CLOCK-	BROWN W/ WHITE
13	Up SENSOR	Green w/ White & Blue w/ Red
14	0V SENSOR	White w/ Green, Red w/ Blue, Blue Thermistor
15	Th	Blue Thermistor
Connector Case	SHIELD	CABLE DRAIN WIRE

* Be sure to connect the secondary ground at the rear cover of the motor to the machine's single-point earth ground (P.E.).

** Encoder Phase Angle (for PowerTools Pro): 150deg (nominal)