PROBE CONNECTOR
PROBE CABLE PN:11211
ALLIN1DC PROBE CONNECTOR
SPINDLE MOTOR
WIRE GAUGE DEPENDS ON SPINDLE HP
SPINDLE BRAKE RELEASE
HIGH-LOW RANGE SWITCH
SPINDLE COOLING FAN
NOTE 1
110VAC SPINDLE COOLING FAN
110H-122 BLK connects from CNT1/L3 to TB1/3A.
Wire 110H-123 BLK connects to CNT1/T3.
Wire 110N-124 WHT connects to TB1/7A.
Wires are 18 AWG
220VAC SPINDLE COOLING FAN
220-297 BLK connects from F3/LOAD to CNT1/L3, Wire 220-298 BLK connects to CNT1/T3. Wire 220-299 WHT connects to F4/LOAD.
Wires are 14 AWG
WORK LIGHT
FLOOD PUMP CABLE 14 AWG
MIST
NOTE 2
110VAC LUBE PUMP
Wire 110H-126 BLK connects from TB1/2B to ALLIN1DC H6/OUT 2 COM.
Wire 110H-127 BLK connects to ALLIN1DC H6/OUT 2.
Wire 110N-128 WHT connects to TB1/5B.
Wire GND-3 GRN connects to TB1/8B.
Wires are 18 AWG
220VAC LUBE PUMP
220-226 BLK connects from F3/LOAD to ALLIN1DC H6/OUT 2 COM
Wire 220-227 BLK connects to ALLIN1DC H6/OUT 2.
Wire 220-228 WHT connects to F4/LOAD.
Wire GND-3 GRN connects to TB1/8B.
Wires are 14 AWG
LIMIT SWITCHES
SEE LIMIT SWITCH OPTIONS FOR ONE CABLE PER SWITCH
MIN 22 AWG
NOTE 3
ALL CONTACTOR COILS REQUIRE A SNUBBER, EITHER CONTACTOR MANUFACTURERS RECOMMENDED SNAP ON SNUBBER OR CENTROID PN:1819 EXTERNAL QUENCHARC SNUBBER.
MAXIMUM 40A 3 PHASE
ROTARY DISCONNECT
GND LUG
INVERTER
WIRE GAUGE DEPENDS ON SPINDLE HP
CNT1 (SEE NOTE 3)
CNT2 (SEE NOTE 3)
CNT3 (SEE NOTE 3)
CNT4 (SEE NOTE 3)
OCR1
OCR2
OCR3
WIRES MUST BE SIZED FOR SPINDLE MOTOR HP
WIRES MUST BE SIZED FOR SPINDLE MOTOR HP
T1
PN:1804
LOCATED UNDER ALLIN1DC
CAPBRD HIGH
BRAKE RELEASE POWER SUPPLY
MEANWELL RQ-65D POWER SUPPLY PN:8265
PS1
PS2
MEANWELL S-25-24 POWER SUPPLY PN:8263
PN:13106 POWER CABLE
Z-AXIS BRAKE RELEASE CONNECTOR
Z-AXIS BRAKE CABLE 18 AWG
CONTROL PANEL E-STOP CONNECTOR
ELECTRICAL CABINET E-STOP CONNECTOR PN:12522
E-STOP SWITCH
For 4th axis move wire 24H-509 RED to DC1 H7/RLY1 and add wire 24H-509A RED between ALLIN1DC H6/OUT 1 and DC1 H7/RLY2
18 AWG
DC POWER CABLE
PS1:+V2 (+12VDC)
PS1:COM (VDC COM)
PS1:COM (VDC COM)
PS1:+5V (+5VDC)
CURRENT SETTINGS
DRIVE COMM OUT
DRIVE COMM IN
= LIMIT DEFEAT
DC1
REV 090402
PN:11112
CABLE FROM ALLIN1DC PN:11146
E-STOP CON./PIN 1 TO DC1 H7/RLY1
ALLIN1DC H6/OUT 1 TO DC1 H7/RLY2
ENCODER CONNECTIONS
PIN G = A (WHT)
PIN H = A\ (BLK/WHT)
PIN I = Z (GRN)
PIN P = Z\ (BLK/GRN)
PIN U = GND (SHLD)
ROTARY TABLE CONNECTOR PN:10346
ALLIN1DC H6/OUT 4 (CLAMP)
TB1/6B (CLAMP)
TB1/3A (110VAC)
TB1/6A (110VAC)
MOLDED POWER CORD
DOOR FAN
ALLIN1DC
REV 140527
PN:11144
RELAYS RATED FOR 5A (NO) /3A (NC)
AT 30 VDC/277VAC
DRIVE CURRENT SETTING
AXIS 3 FUSE
AXIS 2 FUSE
AXIS 1 FUSE
LIMIT DEFEATERS (ON TO DEFEAT)
SHIELDED ETHERNET CABLE FROM PC/CONSOLE
PROBE CABLE PN:11211
SHIELDED ETHERNET CABLES
6' PN:6144
15' PN:7269
25' PN:6143
50' PN:6989
Z-AXIS MOTOR CABLE 14 AWG PN:10694 (INCLUDES ENCODER CABLE)
Y-AXIS MOTOR CABLE 14 AWG PN:10694 (INCLUDES ENCODER CABLE)
X-AXIS MOTOR CABLE 14 AWG PN:10694 (INCLUDES ENCODER CABLE)
ENCODER CABLE MALE END
PIN 1 = N/C
PIN 2 = COM (BLK/RED)
PIN 3 = Z\ (BLK/GRN)
PIN 4 = A\ (BLK/WHT)
PIN 5 = B\ (BLK/BLU)
PIN 6 = Z (GRN)
PIN 7 = A (WHT)
PIN 8 = B (BLU)
PIN 9 = +5VDC (RED)
CABLE SIDE
ENCODERS
PLC ADD ON CONNECTORS
OPERATOR CONTROL PANEL CABLE PN:11014
MPG CABLE PN:11086
SPINDLE ENCODER CABLE PN:14355
AXIS ENCODER CABLES PN:10830
CABLE TO DC1 PN:11146
DRIVE COM OUT
DC ROTARY TABLE
ENCODER
CLAMP SWITCH
DC SERVO MOTOR
CENTROID DC SERVO MOTORS w/ 16' DW CABLE
DC SERVO MOTOR WITH ENCODER
WIRE COLOR DEPENDS ON ENCODER BRAND
ENCODER CABLE PN:10830
IF USING CIRCUIT BREAKERS INSTEAD OF FUSES, SEPARATE DEVICE SUPPLY CIRCUITS AND USE D CURVE CIRCUIT BREAKERS.
WE RECOMMEND THE FOLLOWING BREAKERS.
CNC CONSOLE
Centroid PN:13139
CNC CONSOLE W/ BUILT IN CNCPC
Centroid PN:13181
CNC PC CABINET MOUNT PN:11084
500WATT ATX POWER SUPPLY PN:6868
IN CABINET PC PN:11084
USB EXTENSION CABLE PN:8471
ETHERNET CABLE TO ALLIN1DC
NUC PN:8520
VGA CONTROLER BOARD
NETWORK ACCESS PN:8570
HUB PN:8569
OPERATOR CONTROL PANEL PN:11077
MPG CONNECTOR
MPG CABLE LENGTHS
6' PN:12560
10' PN:12987
12' PN:12988
14' PN:12989
16' PN:12990
MPG CABLE (12') PN:12988
SUGGESTED WIRE CURRENT CAPACITY STRANDED MTW OR EQUIVALENT
18 AWG - UP TO 6A
16 AWG - UP TO 8A
14 AWG - UP TO 15A
12 AWG - UP TO 20A
10 AWG - UP TO 30A
8 AWG - UP TO 40A
6 AWG - UP TO 60A
LIMIT SWITCH OPTIONS
All limit switch cables minimum 22AWG shielded. All shields grounded
NOTE FUSE RATING DEPENDS ON SPINDLE HP
E-STOP CONNECTIONS ARE SHOWN IN RED
OPTIONAL CONNECTIONS ARE SHOWN IN BLUE
GROUND CONNECTIONS ARE SHOWN IN GREEN
110VAC CONNECTIONS ARE SHOWN IN VIOLET
3 PHASE CONNECTIONS ARE SHOWN IN ORANGE
24VAC CONNECTIONS ARE SHOWN IN BROWN

REV	DATE	DESCRIPTION	BY
1	4-15-2016	INITIAL RELEASE	SPM
2	4-18-2016	DRAFTING CORRECTIONS PER REVIEW	SPM
3	5-26-2016	CHANGES TO STANDARD	SPM
4	6-20-2016	CHANGES TO STANDARD AND PART NUMBERS	SPM

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Title: Mill, 220VAC, ALLIN1DC, Spindle Reversing Contactors

Size	Number	Rev
D		4

Date	Drawn by
160414	SPM

Filename	Sheet
S14750.DWG	1 of 1

PART (MFG PN:)	LOCATION
ALLIN1DC (PN:11144)	E2-F4
CAPBRD HIGH (PN:12766)	D3,D4
CNT1 (PN:14374)	B2
CNT2 (PN:14377)	B3
CNT3,4 (PN:14375)	B3
DC1 (PN:11112)	G1-H2
CONSOLE OPTIONS	C5-D6
DISCONNECT (QT40F3)	B1
DOOR FAN	F5
E-STOP CON.	D5
E-STOP CON. CONSOLE	D6
E-STOP CON. PENDANT	E6
E-STOP SWITCH	D5
E-STOP SWITCH CONSOLE	D6
E-STOP SWITCH PENDANT	E6
F1,F2,F3,F4	B1
F5,F6	D3
FLOOD PUMP MOTOR	A2,A3
FUSE TABLE	G6
GROUND LUG	B1
HIGH-LOW RANGE SWITCH	A2
LIMIT SWITCHES	A4
LIMIT SWITCH OPTIONS	F6,G6
LUBE PUMP	A3
MIST	A3
MPG CABLE	E5-F6
NOTE 1	A2
NOTE 2	A3
NOTE 3	A4
NUC (PN:8520)	C6
OCR2 (LR2K0310)	B3
OCR3 (LR2K0310)	B3
OPERATOR CONTROL PANEL	E6
PC (PN:11084)	B6
PROBE CABLE (PN:11211)	C1
PS1 (RQ-65D)	D4
PS2 (S-25-24)	C4
SPINDLE BRAKE RELEASE	A2
SPINDLE COOLING FAN	A2
SPINDLE MOTOR	A1
TB1 (PN:1804)	B4
T1	D2,D3
WORK LIGHT	A2
Z-AXIS BRAKE RELEASE	C4,D4