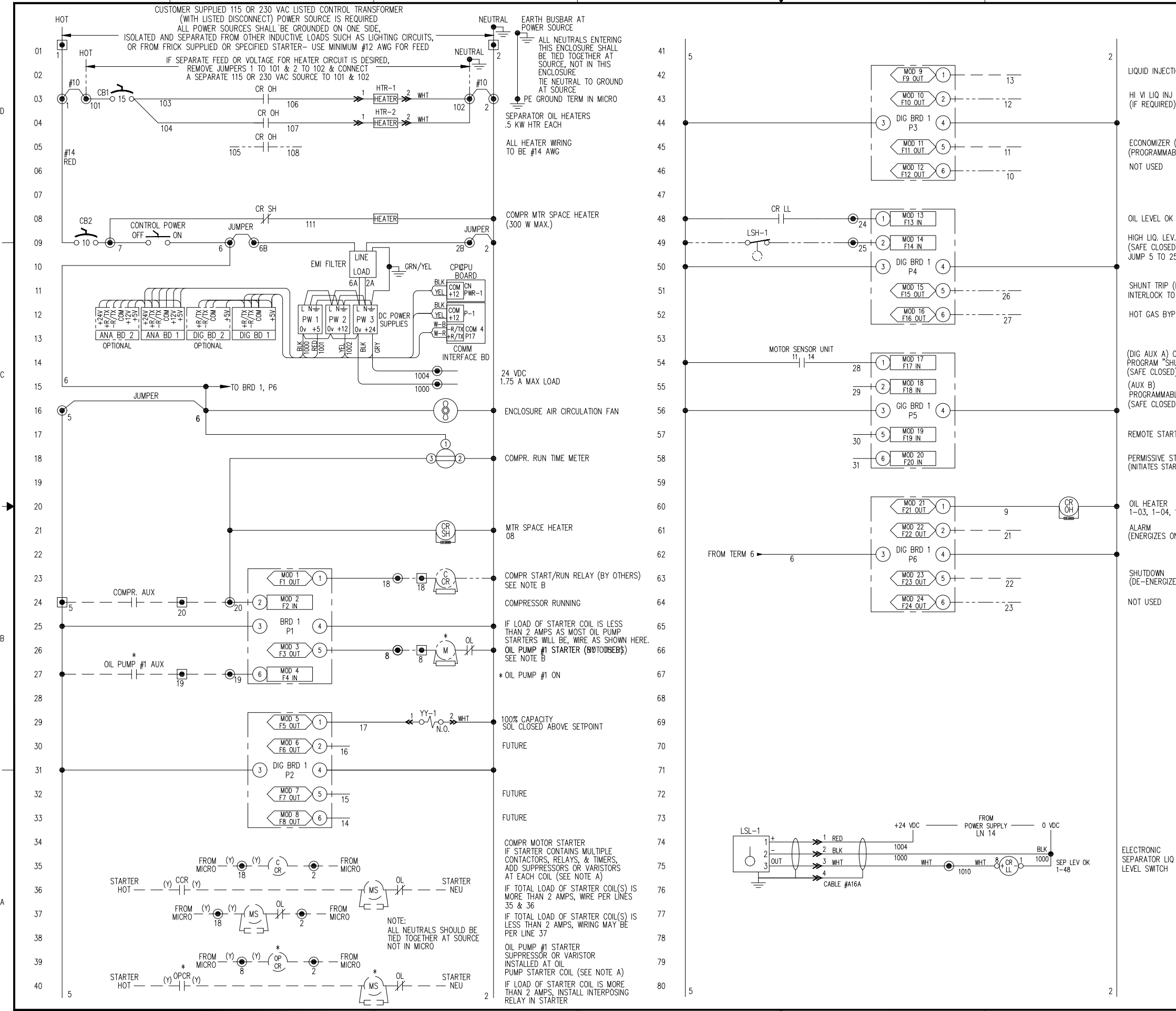


REVISION HISTORY							
ZONE	REV	ECN	DESCRIPTION	DATE	DR	CHK	APPD

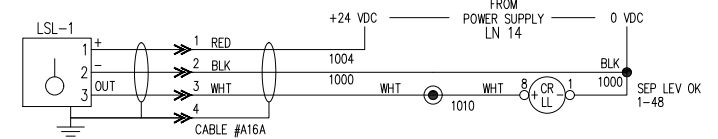


NOTE A:
A SURGE SUPPRESSOR TO BE INSTALLED ACROSS ALL INDUCTIVE LOADS IN QUANTUM AND IF SHOWN, ON DEVICES OUTSIDE OF QUANTUM.
SURGE SUPPRESSOR
SUPPRESSOR SPECIFICATIONS:
RC NETWORK CONSISTING OF A .1 MFD CAPACITOR, 600 VDC IN SERIES WITH A 47 OHM RESISTOR.
USE ELECTROCUBE #RG2031-3-6 OR EQUAL.

NOTE C:
SOLENOID WIRING IF DIN CONNECTORS ARE USED
IF ANY OTHER DEVICES USE DIN CONNECTORS, SUCH AS OIL HEATERS, THE HOT WILL ALWAYS BE PIN 1 AND THE NEUTRAL PIN 2

INDICATES DIN CONNECTOR IF USED ON DEVICE
--- INDICATES DEVICES SUPPLIED BY FRICK OR OTHERS WHEN OPTIONAL OR REQUIRED
--- WIRING BY OTHERS- ALL WIRING ENTERING CONTROL CENTER (INCLUDING GROUND & NEUTRAL) TO BE #14 AWG STRANDED WIRES UNLESS SPECIFIED OTHERWISE.
■ REPRESENTS STARTER TERMINALS WHEN SUPPLIED BY FRICK.
● TERMINALS IN DIG I/O CONTROL CENTER

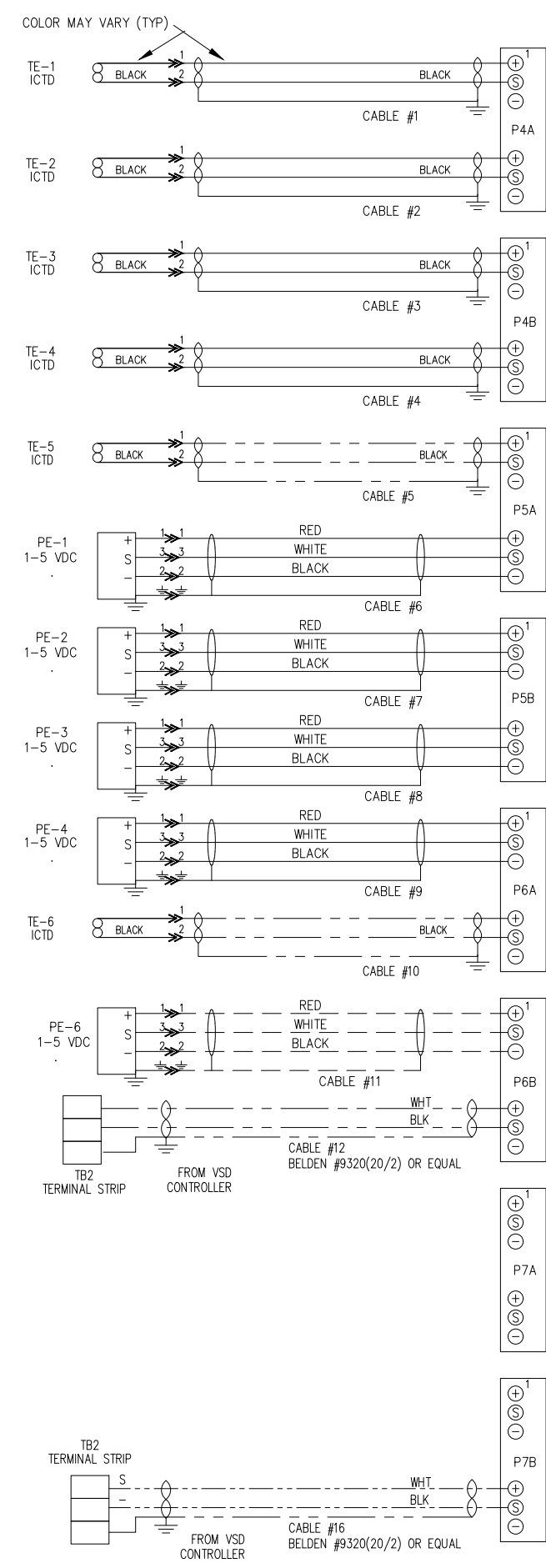
NO THREE PHASE WIRING SHALL ENTER OR LEAVE QUANTUM PANEL OR BE RUN IN SAME CONDUIT AS ANY QUANTUM CONTROL WIRING ENTERING OR LEAVING QUANTUM PANEL
NO SINGLE PHASE OVER 300 VOLTS SHALL ENTER OR LEAVE QUANTUM PANEL
ALL QUANTUM WIRING TO BE #16 AWG STRANDED WIRE UNLESS SPECIFIED OTHERWISE.
ALL NEUTRAL (EXP: 2 & 2A) WIRING TO BE WHITE UNLESS NOTED OTHERWISE
FOR INSTALLATION OF QUANTUM PACKAGE TEST PROCEDURE, SEE MMIB NO. 4.11.10.12
FOR INSTALLATION OF COMPUTER BOARDS AND EPROMS, SEE MMIB NO. 4.11.10.11
FOR HIGH POT TEST PROCEDURE, SEE MMIB NO. 4.11.10.7
FOR QUANTUM ASSEMBLY AND TEST PROCEDURE, SEE MMIB NO. 4.11.10.14



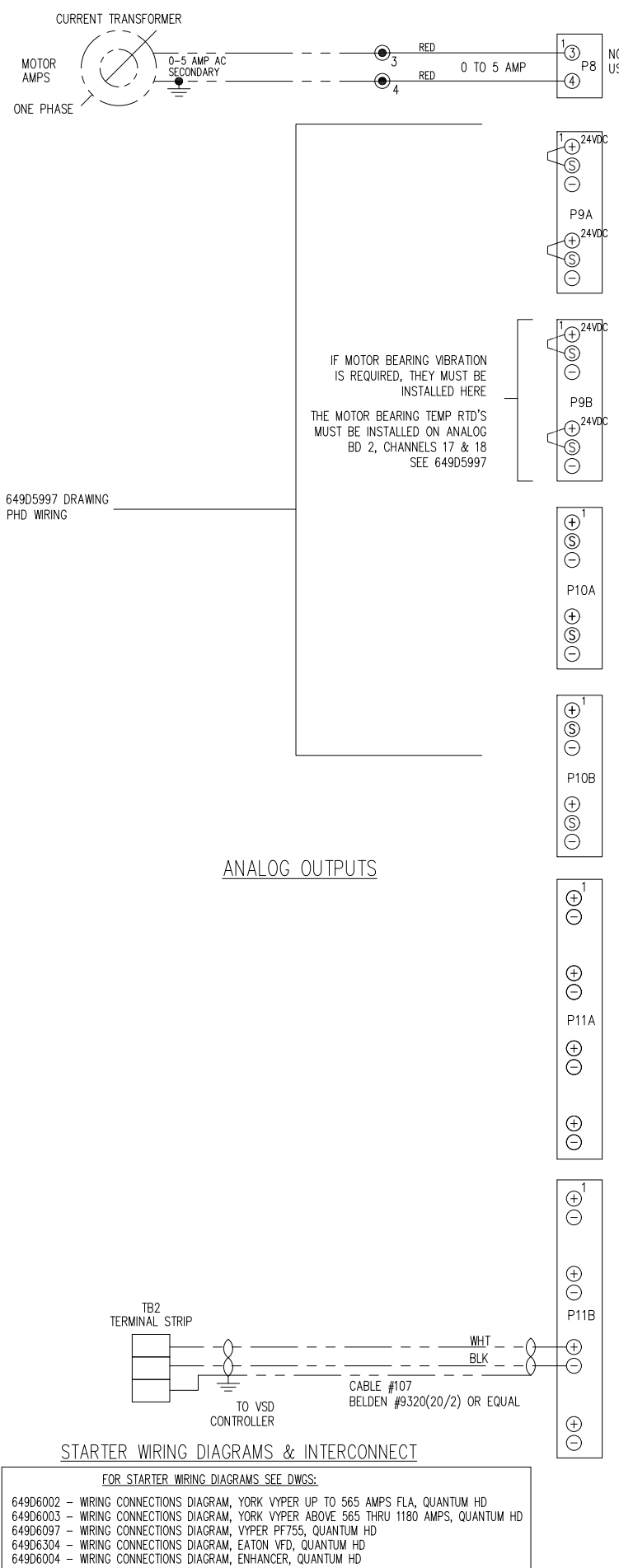
ELECTRONIC SEPARATOR LIQ LEVEL SWITCH

PURCHASER		NOTICE TO PURCHASER REFER TO CONTRACT FOR MATERIAL TO BE SUPPLIED BY YORK REFRIGERATION. THE AMOUNT OF SUCH MATERIAL IS NOT INCREASED BY ANYTHING SHOWN UPON THIS DRAWING.	
FRICK NO.	PURCH ORD NO.	100 CV AVENUE WAYNESBORO, PA 17268 USA	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DO NOT SCALE			
UNLESS OTHERWISE SPECIFIED TOLERANCES PER GAP 18		TITLE WIRING DIAGRAM HPS-36, HPS-42, QUANTUM HD	
DR HG NOWELL	10-27-2016	SIZE	CAGE CODE
CHK JM LONG	10-27-2016	DWG NO	REV
APPD HS NOWELL	10-27-2016	D 23587	649D6307
CODE	SCALE NONE	SHEET 1	OF 2

REVISION HISTORY							
ZONE	REV	ECN	DESCRIPTION	DATE	DR	CHK	APPD



- ANALOG BOARD #1
- CHANNEL 1 SUCT TEMP ICTD J1 PINS 1-2
 - CHANNEL 2 DISCH TEMP ICTD J2 PINS 1-2
 - CHANNEL 3 OIL TEMP ICTD J3 PINS 1-2
 - CHANNEL 4 SEP TEMP ICTD J4 PINS 1-2
 - CHANNEL 5 LEAVING PROCESS TEMP ICTD CAPACITY CONTROL (OPTIONAL) J5 PINS 1-2
 - CHANNEL 6 OIL PRESS 0-5 VDC J6 PINS 1-2
 - CHANNEL 7 FILTER PRESS 0-5 VDC J7 PINS 1-2
 - CHANNEL 8 DISCH PRESS 0-5 VDC J8 PINS 1-2
 - CHANNEL 9 SUCT PRESS 0-5 VDC J9 PINS 1-2
 - CHANNEL 10 ENTERING PROCESS TEMP 4-20 mA = 20 TO 180 °F J10 PINS 1-2
 - CHANNEL 11 SYSTEM DISCHARGE PRESS 0-5 VDC PRESS SHOWN USE WITH DIG. & ANA. CONDENSER CONTROL J11 PINS 1-2
 - CHANNEL 12 DRIVE SPEED (RPM) (VSD, TURBINE, ETC) 4-20mA J12 PINS 1-2
 - CHANNEL 13 POWERMIZER (ECONOMIZER PRESS MONITOR) 0-5 VDC J13 PINS 1-2
 - CHANNEL 14 SLIDE VALVE 0-20 MA NOT USED
 - CHANNEL 15 SLIDE STOP 0-20 MA NOT USED
 - CHANNEL 16 MOTOR AMPS 0-20 MA J16 PINS 1-2 USE IF MOTOR AMPS IS GIVEN IN Ma



- CHANNEL 16A MOTOR AMPS CURRENT TRANSFORMER 0-5 A USE IF MOTOR AMPS IS GIVEN IN AMPS
- CHANNEL 17 PHD CH 1 SUCTION END COMPRESSOR VIBRATION DEFAULT SETPOINTS: HI ALARM @ 3.5gf, 99 SEC DELAY HI SHUTDOWN @ 10.0gf, 1 SEC DELAY LK 3 OUT & 4 IN BY DEFAULT (TYP) J17 PINS 2-3, JC17 OUT
- CHANNEL 18 PHD CH 2 DISCHARGE END COMPRESSOR VIBRATION DEFAULT SETPOINTS: HI ALARM @ 3.5gf, 99 SEC DELAY HI SHUTDOWN @ 10.0gf, 1 SEC DELAY J18 PINS 2-3, JC18 OUT
- CHANNEL 19 PHD CH 3 SHAFT SIDE MOTOR VIBRATION DEFAULT SETPOINTS: HI ALARM @ 3.5gf, 99 SEC DELAY HI SHUTDOWN @ 10.0gf, 1 SEC DELAY J19 PINS 2-3, JC19 OUT JUMP + to S FOR VIB
- CHANNEL 20 PHD CH 4 OPPOSITE SHAFT SIDE MOTOR VIBRATION DEFAULT SETPOINTS: HI ALARM @ 3.5gf, 99 SEC DELAY HI SHUTDOWN @ 10.0gf, 1 SEC DELAY J20 PINS 2-3, JC20 OUT JUMP + to S FOR VIB
- CHANNEL 21 PHD CH 5 MOTOR STATOR #1 TEMP DEFAULT SETPOINTS: SEE NOTE 1 100 OHM PLATINUM .00385 TCR J21 PINS 2-3, JC21 IN
- CHANNEL 22 PHD CH 6 MOTOR STATOR #2 TEMP DEFAULT SETPOINTS: SEE NOTE 1 100 OHM PLATINUM .00385 TCR J22 PINS 2-3, JC22 IN
- CHANNEL 23 PHD CH 7 MOTOR STATOR #3 TEMP DEFAULT SETPOINTS: SEE NOTE 1 100 OHM PLATINUM .00385 TCR J23 PINS 2-3, JC23 IN
- CHANNEL 24 (INPUT) EZ COOL LIQC FEEDBACK 4-20mA J24 PINS 1-2, JC24 IN
- CHANNEL 1 P/I CONTROL LOOP "A" OR TO RE-TRANSMIT ANALOG INPUT 4-20mA
- CHANNEL 2 P/I CONTROL LOOP "B" OR TO RE-TRANSMIT ANALOG INPUT 4-20mA
- CHANNEL 3 PROGRAM SELECTABLE OUTPUT TO RE-TRANSMIT ANALOG INPUT SLIDE VALVE POSITION/CAPACITY 4-20 MA = 0 TO 100 %
- CHANNEL 4 (EZ COOL PID LOOP) P/I LOOP CONTROL (REF DISCH TEMP) 4-20 mA = 0 TO 100%
- CHANNEL 5 CONDENSER ANALOG OUTPUT A LOCATE PRESS. TRANSDUCER ON CHANNEL 11, ANA BD. 1
- CHANNEL 6 CONDENSER ANALOG OUTPUT B
- CHANNEL 7 COMPR SPEED OUTPUT (VFD) 4-20 mA
- CHANNEL 8 P/I, RE-XMIT ANALOG INPUT CHANNEL

COMPRESSOR ACCELEROMETERS

THE SETPOINTS GIVEN FOR ALARM AND SHUTDOWN SERVE AS A STARTING POINT. ONCE THE COMPRESSOR IS RUNNING BASELINE VALUES SHOULD BE MEASURED WITH THE ALARM AND SHUTDOWN VALUES RESET WITH REFERENCE TO THE INITIAL BASELINE READINGS.

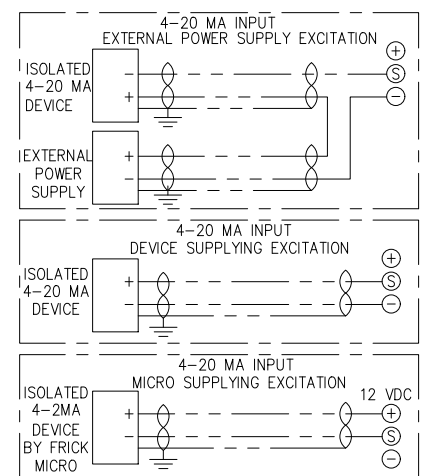
ONCE RUNNING MEASURE BASELINE AND ADJUST SET POINTS TO:

BASELINE x 2.0 ALARM
BASELINE x 3.0 SHUTDOWN

NOTE 1
COMPRESSOR MOTOR RTD'S
TYPICAL SETTINGS
SEE MOTOR SPEC SHT FOR VERIFICATION OF TEMPERATURE VALUES

MOTOR SHAFT BEARINGS
HI SHUTDOWN: 221 F., 5 SEC DELAY
HI ALARM: 203 F., 5 SEC DELAY

STATOR WINDINGS
HI SHUTDOWN: 311 F., 5 SEC DELAY
HI ALARM: 302 F., 5 SEC DELAY



PURCHASER		NOTICE TO PURCHASER REFER TO CONTRACT FOR MATERIAL TO BE SUPPLIED BY YORK REFRIGERATION. THE AMOUNT OF SUCH MATERIAL IS NOT INCREASED BY ANYTHING SHOWN UPON THIS DRAWING.	
FRICK NO.	PURCH ORD NO.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DO NOT SCALE			
UNLESS OTHERWISE SPECIFIED TOLERANCES PER GAP 18			
DEC 3PL ± .01"	DEC 3PL ± .005"	FRACT ± 1/64"	ANGLE ± 1/2
DR HG NOWELL	10-27-2016	CAGE CODE	DWG NO
CHK JM LONG	10-27-2016	23587	649D6307
APPD HS NOWELL	10-27-2016	SCALE NONE	SHEET 2 OF 2
CODE			