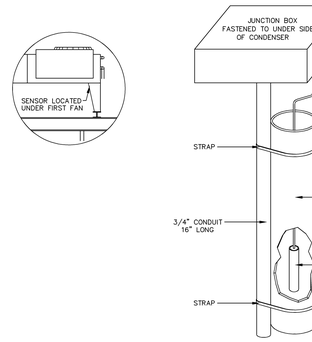
1 X

SCALE: NONE

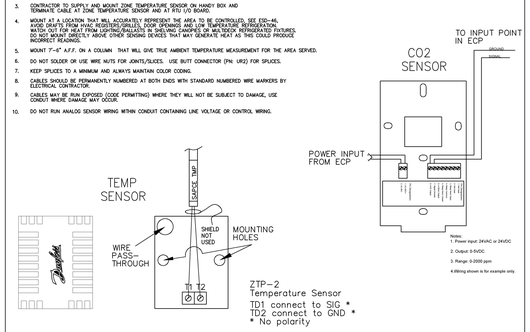


2 AIR-COOLED CONDENSER AMBIENT TEMP SENSOR DETAIL

SCALE: NONE

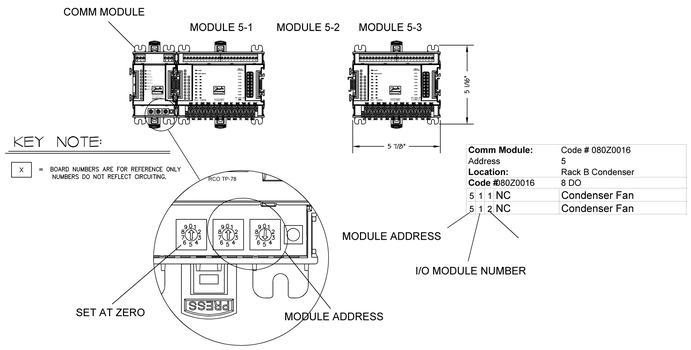
NOTES:

1. KROGER TO SPECIFY LOCATION OF ZONE TEMPERATURE SENSOR.
2. CONTRACTOR TO PROVIDE AND MOUNT HANDY BOX FOR ZONE TEMPERATURE SENSOR AND TO RUN TEMPERATURE SENSOR CABLE FROM HPC BOARD AT ROOFTOP UNIT TO ITS ZONE TEMPERATURE SENSOR FOR THE SPACE SERVED.
3. CONTRACTOR TO SUPPLY AND MOUNT ZONE TEMPERATURE SENSOR ON HANDY BOX AND TERMINATE CABLE AT ZONE TEMPERATURE SENSOR AND AT RTU I/O BOARD.
4. MOUNT AT A LOCATION THAT WILL ACCURATELY REPRESENT THE AREA TO BE CONTROLLED, SEE EDC-46, AVOID DRAFTS FROM HVAC REGISTERS/GRILLES, DOOR OPENINGS AND LOW TEMPERATURE REFRIGERATION. WATCH OUT FOR HEAT FROM LIGHTING/BALLASTS IN SHELVING CANOPIES OR MULTIDECK REFRIGERATED FIXTURES. DO NOT MOUNT DIRECTLY ABOVE OTHER SENSING DEVICES THAT MAY GENERATE HEAT AS THIS COULD PRODUCE INCORRECT READINGS.
5. MOUNT 7'-0" A.F.F. ON A COLUMN THAT WILL GIVE TRUE AMBIENT TEMPERATURE MEASUREMENT FOR THE AREA SERVED.
6. DO NOT SOLDER OR USE WIRE NUTS FOR JOINTS/SLICES. USE BUTT CONNECTOR (PN: UR2) FOR SPLICES.
7. KEEP SPLICES TO A MINIMUM AND ALWAYS MAINTAIN COLOR CODING.
8. CABLES SHOULD BE PERMANENTLY NUMBERED AT BOTH ENDS WITH STANDARD NUMBERED WIRE MARKERS BY ELECTRICAL CONTRACTOR.
9. CABLES MAY BE RUN EXPOSED (CODE PERMITTING) WHERE THEY WILL NOT BE SUBJECT TO DAMAGE, USE CONDUIT WHERE DAMAGE MAY OCCUR.
10. DO NOT RUN ANALOG SENSOR WIRING WITHIN CONDUIT CONTAINING LINE VOLTAGE OR CONTROL WIRING.



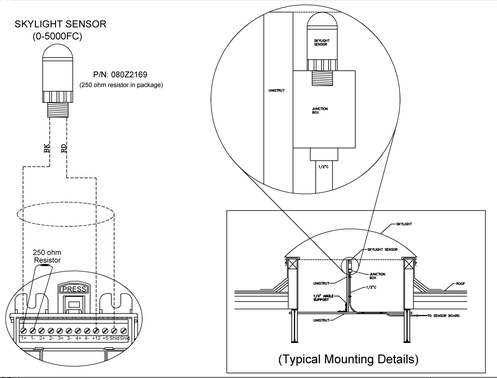
3 CONTROL SYSTEM - SPACE TEMPERATURE & CO2 SENSOR TERMINATION

SCALE: NONE



4 KEY AND COMM MODULE SETTINGS

SCALE: NONE

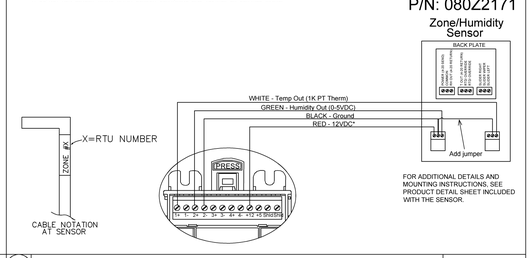


5 CONTROL SYSTEM - SKYLIGHT SENSOR WIRING & MOUNTING

SCALE: NONE

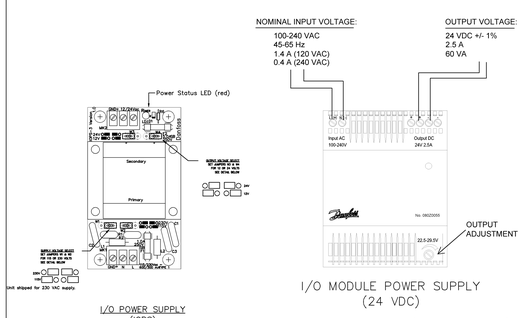
NOTES:

1. CONTRACTOR TO MOUNT RH SENSOR MODULE. CONTRACTOR TO INSTALL AND TERMINATE CABLE FOR RH SENSOR MODULE.
2. SENSOR MODULE TO BE MOUNTED AS SHOWN – TERMINAL STRIP UP.
3. MOUNT AT A LOCATION THAT WILL ACCURATELY REPRESENT THE AREA TO BE CONTROLLED.
4. AVOID DRAFTS FROM HVAC REGISTERS/GRILLES, DOOR OPENINGS, AND LOW TEMPERATURE REFRIGERATION. WATCH OUT FOR HEAT FROM LIGHTING/BALLASTS IN SHELVING CANOPIES OR MULTIDECK REFRIGERATED FIXTURES. DO NOT MOUNT DIRECTLY ABOVE OTHER SENSING DEVICES THAT MAY GENERATE HEAT AS THIS COULD PRODUCE INCORRECT READINGS.
5. MOUNT AT 7'-0" ABOVE FINISHED FLOOR ON A COLUMN THAT WILL GIVE TRUE AMBIENT MEASUREMENT FOR THE AREA SERVED.
6. KEEP SPLICES TO A MINIMUM AND ALWAYS MAINTAIN COLOR CODING.
7. CABLES SHOULD BE PERMANENTLY NUMBERED AT BOTH ENDS WITH STANDARD NUMBERED WIRE MARKERS.
8. CABLES MAY BE RUN EXPOSED (CODE PERMITTING) WHERE THEY WILL NOT BE SUBJECT TO DAMAGE. USE CONDUIT WHERE DAMAGE MAY OCCUR.
9. DO NOT RUN SENSOR WIRING WITHIN CONDUIT CONTAINING LINE VOLTAGE OR CONTROL WIRING.



6 CONTROL SYSTEM - RH SENSOR TERMINATION

SCALE: NONE



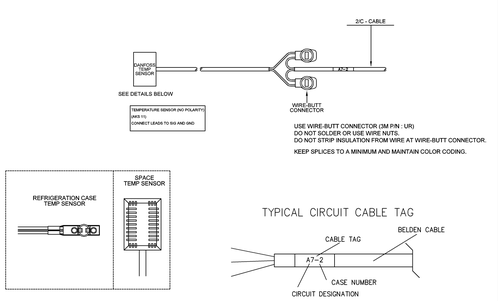
I/O POWER SUPPLY (IOPS)
PN 080Z0052 (56VA)

I/O MODULE POWER SUPPLY (24 VDC)

POWER SUPPLY (080Z0055)

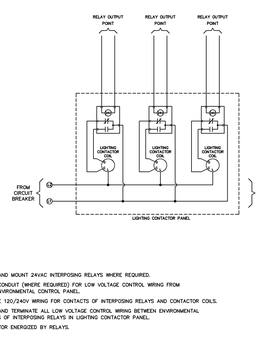
7 AK-SC 255 CONTROL SYSTEM - POWER SUPPLY WIRING

SCALE: NONE



8 CONTROL SYSTEM - WIRE SPLICING IN REFRIGERATED AREAS

SCALE: NONE

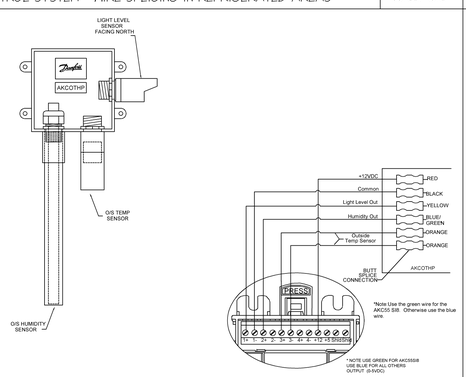


NOTES:

1. CONTRACTOR TO PROVIDE AND MOUNT 24VAC INTERPOSING RELAYS WHERE REQUIRED.
2. CONTRACTOR TO PROVIDE CONDUIT (WHERE REQUIRED) FOR LOW VOLTAGE CONTROL WIRING FROM INTERPOSING RELAYS TO ENVIRONMENTAL CONTROL PANEL.
3. CONTRACTOR TO TERMINATE 120/240V WIRING FOR CONTACTS OF INTERPOSING RELAYS AND CONTACTOR COILS.
4. CONTRACTOR TO PROVIDE AND TERMINATE ALL LOW VOLTAGE CONTROL WIRING BETWEEN ENVIRONMENTAL CONTROL PANEL AND COILS OF INTERPOSING RELAYS IN LIGHTING CONTACTOR PANEL.
5. KROGER SUPPLIED CONTACTOR ENERGIZED BY RELAYS.

9 CONTROL SYSTEM - LIGHTING CONTROL

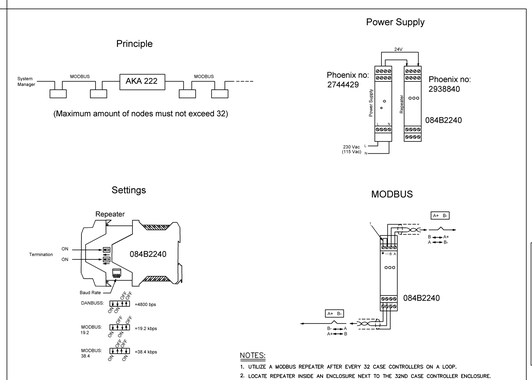
SCALE: NONE



*Note Use the green wire for the AKCSS SB. Otherwise use the blue wire.

10 CONTROL SYSTEM - LIGHT SENSOR/OUTDOOR TEMP & HUMIDITY SENSOR

SCALE: NONE



NOTES:

1. UTILIZE A MODBUS REPEATER AFTER EVERY 32 CASE CONTROLLERS ON A LOOP.
2. LOCATE REPEATER INSIDE AN ENCLOSURE NEXT TO THE 32ND CASE CONTROLLER ENCLOSURE.

11 CONTROL SYSTEM - MODBUS REPEATER CASE CONTROL NETWORK LOOP

SCALE: NONE

- FOR REFERENCE ONLY -

CONSTRUCTION GUIDELINES

THESE DRAWINGS ARE GUIDELINES FOR THE TYPICAL CONDITIONS AND DETAILS NEEDED TO INSTALL THE ENERGY MANAGEMENT SYSTEM. REFER TO EM–2 FOR TERMINATION PLAN AND STORE SPECIFIC LAYOUT. ALL WORK REQUIRED TO INSTALL, PROGRAM, CONNECT AND START THE ENERGY MANAGEMENT SYSTEM SHALL BE INCLUDED UNDER THE GENERAL CONTRACTORS SCOPE OF SERVICES. SEE RESPONSIBILITIES MATRIX SHEET EM–1. KROGER SERVICE TECHNICIANS WILL BE AVAILABLE TO CONSULT WITH THE ENERGY MANAGEMENT SYSTEM CONTRACTOR FOR SYSTEM PROGRAM SEQUENCING QUESTIONS AND PREFERENCES, BUT THE SET UP AND WORK WILL BE PROVIDED BY THE ENERGY MANAGEMENT SYSTEM CONTRACTOR.

NOTE:
THIS DRAWING IS INTENDED ONLY TO SHOW THE REQUIREMENTS OF THE KROGER CO. THE DRAWING IS NOT INTENDED TO BE USED FOR CONSTRUCTION PURPOSES. ALL CODES, REGULATIONS, ORDINANCES AND APPROVAL OF THE INSPECTION AUTHORITIES HAVING JURISDICTION IS THE RESPONSIBILITY OF THE ARCHITECT EMPLOYED BY THE OWNER.

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NEW STORE

CURRENT PLAN DATE: 5/1/2015
ORIGINAL PLAN DATE: x
DRAWN: MAD
CHECKED:
REVISIONS:

STANDARD PLOTTED SCALE:

ENERGY MANAGEMENT DETAILS

SHEET: EM–4

CAD FILE: