



CONTROLS WIRING DIAGRAM (WD15P)

DESCRIPTION:

- SINGLE CIRCUIT, SINGLE RELAY LIGHTING CONTROL WITH DIMMING, RESTRICTED TO MANUAL ON, MANUAL OFF
- NO RECEPTACLE CONTROL
- PHOTOSENSOR(S), LOW-VOLTAGE SWITCH(ES)

NOTES:

1. PROVIDE ONE ROOM CONTROLLER FOR THE SET OF LUMINAIRES IN THE ROOM DESIGNED TO BE CONTROLLED SEPARATELY, OR FOR EACH CIRCUIT TO BE CONTROLLED. PROVIDE ONE SINGLE-RELAY ROOM CONTROLLER FOR EACH CIRCUIT FOR RECEPTACLE CONTROL. PROVIDE OCCUPANCY SENSORS AND PHOTOSENSORS AS INDICATED ON PLANS. PROVIDE ONE OR MORE LOW-VOLTAGE SWITCHES FOR EACH SPACE TO BE CONTROLLED. SEE PROGRAMMING NOTES.
2. PROGRAM LOAD CONTROL BUTTON TO TURN ON ALL LIGHTS CONTROLLED BY THIS CONTROLLER AT 100% PRESET LEVEL. TAP TOP THE BUTTON TO TURN ON THE LIGHTS AND TAP THE BOTTOM BUTTON TO TURN OFF THE LIGHTS. PRESS AND HOLD THE TOP BUTTON TO RAISE THE LIGHTING LEVEL. PRESS AND HOLD THE BOTTOM BUTTON TO LOWER THE LIGHTING LEVEL.
3. PROVIDE A SINGLE ZONE, CLOSED LOOP SENSOR. THE SENSOR IS TO BE PROGRAMMED TO CONTINUOUSLY DIM BASED ON DAYLIGHT CONTRIBUTION TO MAINTAIN THE REQUIREMENT OF ROOM AT TASK LEVEL.
4. IT IS THE INTENT OF THIS WIRING DIAGRAM TO REPRESENT SITUATIONS INVOLVING LUMINAIRES WITH MULTIPLE LIGHT LEVELS (FULL-DIMMING).

SEQUENCE OF OPERATION:

1. SYSTEM TURNS "ON" WHEN LOCAL LOW-VOLTAGE SWITCH IS OPERATED.
2. SYSTEM OUTPUT IS REDUCED WHEN PHOTOSENSOR DETECTS THAT THE AMBIENT LIGHT LEVEL MEETS OR EXCEEDS THE PROGRAMMED THRESHOLD.
3. SYSTEM TURNS "OFF" WHEN LOCAL LOW-VOLTAGE SWITCH IS OPERATED.

GENERAL NOTES: (APPLICABLE TO ENTIRE SHEET)

- ① VERIFY WIRING REQUIREMENTS WITH MANUFACTURER. WIRING MAY DIFFER BETWEEN MANUFACTURERS.
- ② FOR QUANTITY OF SENSORS AND SWITCHES, REFER TO LIGHTING PLANS.
- ③ AUTOMATIC LIGHTING CONTROL SYSTEM MUST COMPLY WITH NFPA 101, 7.8.1, TO INCLUDE BUT NOT LIMITED TO THE FOLLOWING:
  1. THE AUTOMATIC LIGHTING CONTROL DEVICE MUST BE LISTED.
  2. THE AUTOMATIC LIGHTING CONTROL MUST BE EQUIPPED TO AUTOMATICALLY ENERGIZE THE CONTROLLED LIGHTS UPON LOSS OF NORMAL POWER. SEE FIRE PROTECTION DRAWINGS FOR REQUIREMENTS.
  3. THE AUTOMATIC LIGHTING CONTROL DEVICE IS ACTIVATED BY OCCUPANT MOVEMENT IN THE AREA SERVED.
  4. THE AUTOMATIC LIGHTING CONTROL DEVICE IS ACTIVATED BY ACTIVATION OF THE BUILDING FIRE ALARM SYSTEM.
  5. THE AUTOMATIC LIGHTING CONTROL DEVICE DOES NOT CAUSE THE DE-ENERGIZING OF EMERGENCY BATTERIES.
  6. PROVIDE ALL CONDUIT, WIRING DEVICES, AND CONNECTIONS REQUIRED.
- ④ SUBMIT SHOP DRAWING OF ENTIRE SYSTEM, TO INCLUDE BUT NOT LIMITED TO PRODUCT DATA AND WIRING/CONTROL DIAGRAMS FOR REVIEW AND APPROVAL.
- ⑤ INSTALL ALL CABLES IN CONDUIT. MINIMUM CONDUIT SIZE AS PER SPECIFICATION 16402.

IF SHEET IS LESS THAN 24" X 36"  
REDUCED PRINT - USE GRAPHIC SCALES

REVISIONS		
No.	Description	Date

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Project:

NMC  
PACKAGE 1: STUDENT  
CENTER BUILDING

Title:

MISCELLANEOUS  
DIAGRAMS - SHEET 21

CONSTRUCTION  
DOCUMENTS

Designed: JF/LB

Drawn: NP/RS

Checked: IA/AM

Supv: AM

Scale: AS INDICATED

Date: 10/07/2022

Project No.

File

Drawing No.

**E2.25**

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