

MODEL NUMBERS

NXFM-1R2D-O-UNV, NXFM-1R2D-I-UNV

PRECAUTIONS

- Read and understand all instructions before beginning installation.
- NOTICE: For installation by a licensed electrician in accordance with National and/or local Electrical Codes and the following instructions.
- Disconnect switch or a circuit breaker must be provided and marked as the disconnecting device.
- Disconnect switch / circuit breaker must be within reach of operator.
- CAUTION: RISK OF ELECTRICAL SHOCK. Turn power off at service panel before beginning installation.
- Never wire energized electrical components.
- CAUTION: USE COPPER CONDUCTOR ONLY
- Confirm device ratings are suitable for application prior to installation. Use of device in applications beyond its specified ratings or in applications other than its intended use may cause an unsafe condition and will void manufacturer's warranty.
- NOTICE: Do not install if product appears to be damaged.

SAVE THESE INSTRUCTIONS!

DESCRIPTION

Hubbell Control Solutions' NX Fixture Module is a self contained intelligent power pack designed specifically for installation within a light fixture. The NXFM module contains one relay for on/off control of the fixture and two 0 - 10 volt dimming channels. One dimming channel is intended for continuous dimming of the fixtures light output. The second dimming channel can be used with compatible fixtures to provide color control of the LEDs. A SmartPORT™ connector on the module allows connection of accessory devices such as Smart Sensors, Smart Switches, or RF radio module. The NXFM fixture module can operate stand-alone or as part of a networked configuration.

SPECIFICATIONS

Electrical Ratings	Input: 120-347, 50/60 Hz Output: 10A, 120VAC only, Incandescent 10A, 120-347VAC, Magnetic Ballast 5A, 120/277VAC, Electronic Ballast 3A, 347VAC, Electronic Ballast Inrush Withstand: 160 Amps for 20 milliseconds Surge Withstand: 2000V max
Control connection	Low Voltage SmartPORT
Dimming	0-10V, 30mA per channel For use with low-voltage, two-wire dimming ballast and LED drivers
Operating Environment:	Operating Temperature: -40°F to 185°F [-40°C to 85°C] Relative humidity (non-condensing): 0 to 95%
Construction	Housing: GSM UL Rated 94 HB Plastic
Mounting	Mounts inside fixture
Dimensions	4.8" L x 1.6" W x 1.45" H (121.92mm L x 40.64mm W x 36.83mm H)
Weigh:	4 oz (113.4 g)
Color:	Blue
Patents	Patent(s) Pending
Certifications:	Conforms with UL916 and Certified to CAN/CSA C22.2 No. 205-M1983 IC Approved
Warranty:	Five-year limited

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INSTALLATION

The **NXFM-O** version fixture module is a two piece assembly consisting of a mounting tray and the module housing.

1. Separate the mounting tray from the module housing by pulling out on the two tabs located at the end of the module near the RJ45 connector. Set the module housing aside.
2. Choose an appropriate location within the fixture to mount the module. Using appropriate fasteners (not included) attach the mounting tray to the fixture noting that the arrow embossed in the plastic tray points toward the end where the line voltage wires exit the module.
3. Mount the module into the tray by inserting the two tabs at the line voltage end of the housing into the tray. Then snap the module into the tray by pressing down on the opposite end of the module. Note that the module firmly snaps into place.
4. Using an appropriate connector (not supplied) attach the white module wire to the feed neutral wire and the neutral termination on the driver or ballast.
5. Using an appropriate connector (not supplied) attach the black module wire to the feed hot wire.
6. Attach the red module wire to the hot termination on the fixtures driver or ballast.
7. Attach the purple module dimming wire to the appropriate dimming termination on the driver or ballast. Note this might be marked as PURPLE, POSITIVE, or +.
8. Attach the grey module dimming wire to the appropriate dimming termination on the driver or ballast. Note this might be marked as GREY, NEGATIVE, or -.
9. If the fixture is equipped for color control, attach the purple with white stripe dimming wire to the appropriate terminal on the driver per the fixture manufacturer's instructions. If not so equipped, cap the purple with white stripe wire.
10. Using the supplied cable, connect the NX Smart Sensor or other NX accessory module to the RJ45 port on the top of the NXFM fixture module. Be sure to follow all instructions supplied with the NX Smart Sensor or NX accessory modules.
11. Dress and bind the wires keeping the line voltage wires separate from the dimming wires and any other cables or communication wires that might be in the fixture.
12. Apply power and test the assembly.

The **NXFM-I** version fixture module incorporates a one piece housing with mounting tabs rather than using a mounting tray.

1. Choose an appropriate location within the fixture to mount the module. Using appropriate fasteners (not included) attach the NXFM-I to the fixture.
2. Using an appropriate connector (not supplied) attach the white module wire to the feed neutral wire and the neutral termination on the driver or ballast.
3. Using an appropriate connector (not supplied) attach the black module wire to the feed hot wire.
4. Attach the red module wire to the hot termination on the fixture's driver or ballast.
5. Insert the purple dimming wire from the driver or ballast (this might be marked as PURPLE, POSITIVE, or +) into the push-in connector on the end of the module. IMPORTANT- use only solid or tinned wire with the push-in connector.
6. Insert the grey dimming wire from the driver or ballast (this might be marked as GREY, NEGATIVE, or -) into the push-in connector on the end of the module. IMPORTANT- use only solid or tinned wire with the push-in connector.
7. If the fixture is equipped for color control, insert the color control wire from the driver into the push-in connector on the end of the module marked DIM 2. IMPORTANT- use only solid or tinned wire with the push-in connector.
8. Using the supplied cable, connect the NX Smart Sensor or other NX accessory module to the four pin receptacle on the end of the NXFM fixture module. Be sure to follow all instructions supplied with the NX Smart Sensor or NX accessory modules.
9. Dress and bind the wires keeping the line voltage wires separate from the dimming wires and any other cables or communication wires that might be in the fixture.
10. Apply power and test the assembly.

TEST THE OPERATION

The operation of the NXFM fixture module can be tested using the pushbutton and LED located on the top of the housing near the RJ45 connector.

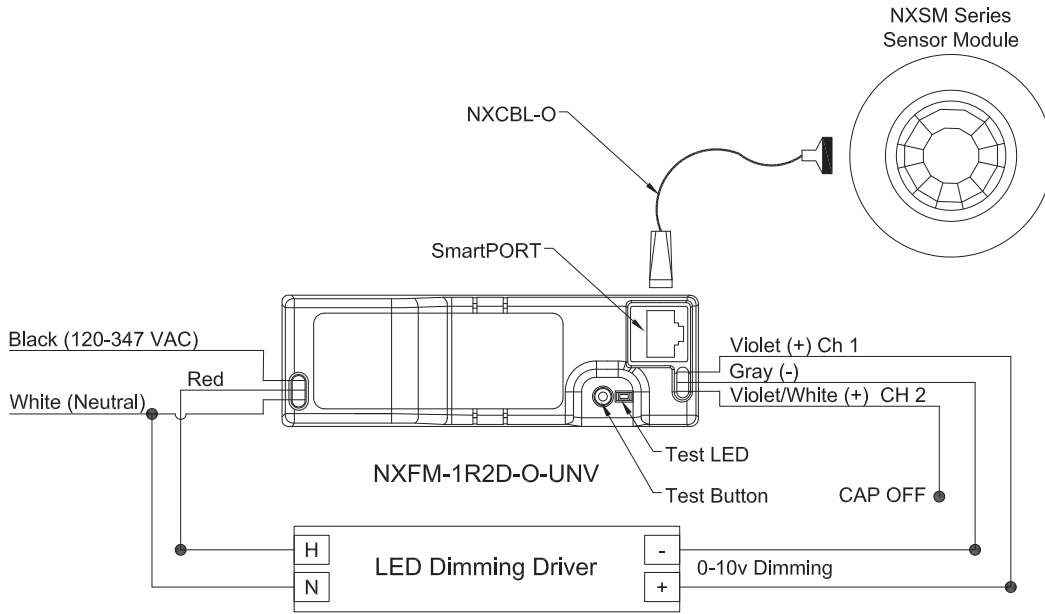
1. Press and release the button to turn the light ON or OFF. While ON, the LED will be lit to indicate the state of the relay.
2. With the relay ON, press and hold the button to dim the first (purple) dimming channel down. Release the button and again press and hold to ramp the dimmer back up. Note that when the dimmer reaches full dim or full bright, the LED will blink once to indicate the end of range.
3. Press and hold the button again. The second (purple with white stripe) dimmer will dim down. Release the button and again press and hold the button to ramp the dimmer back up.

Note: if the fixture is equipped for color temperature control, the color of the light will change as the above dimming test is performed.

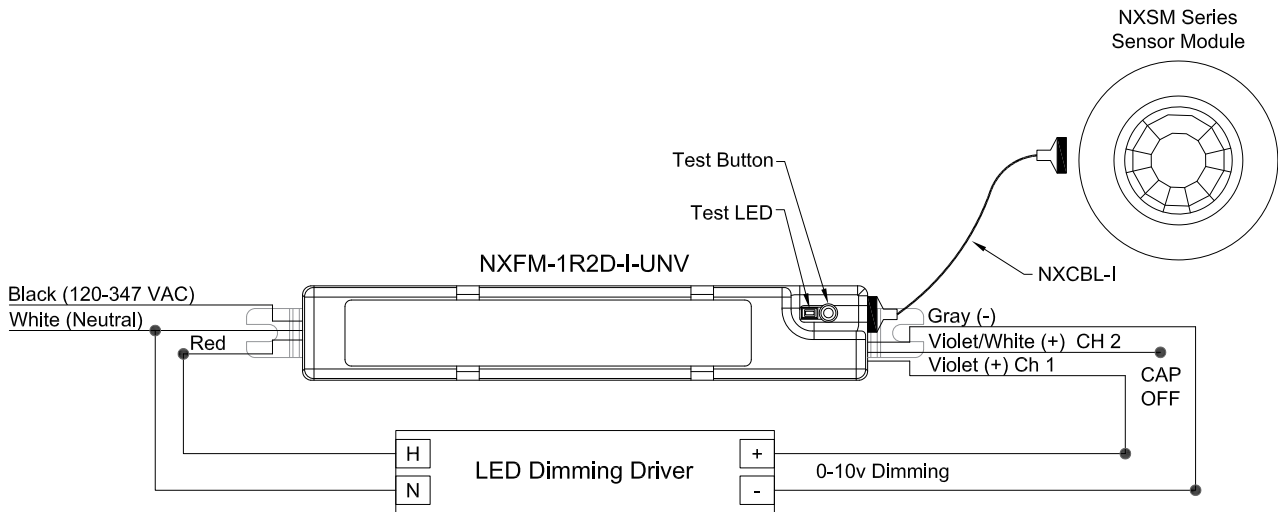
4. Turn the relay OFF and back ON to repeat the above sequence.

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WIRING DIAGRAMS



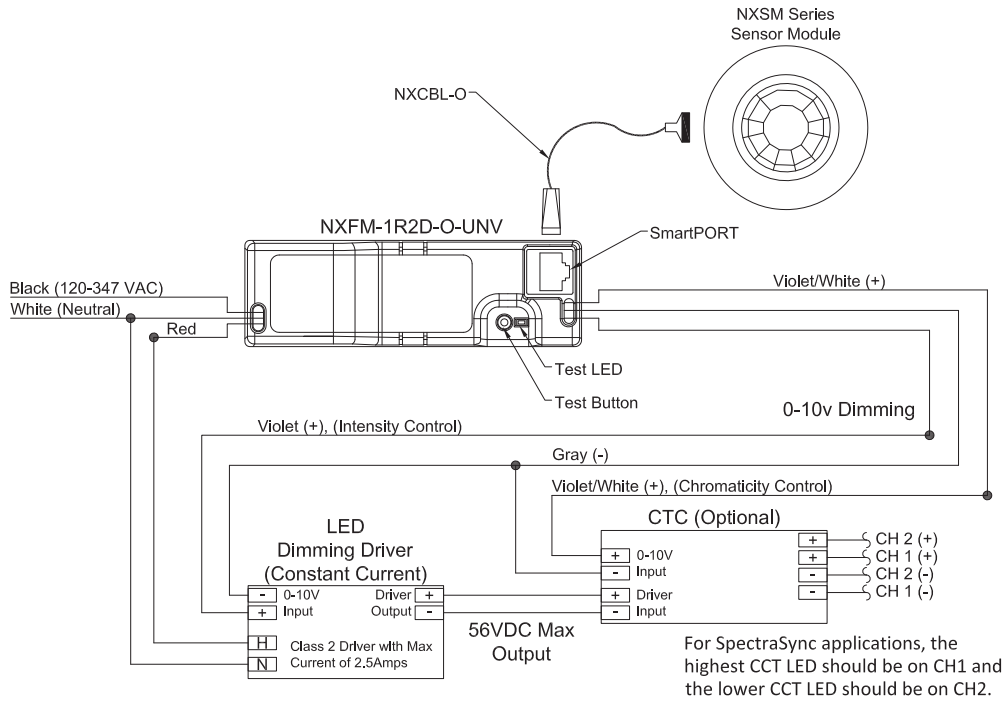
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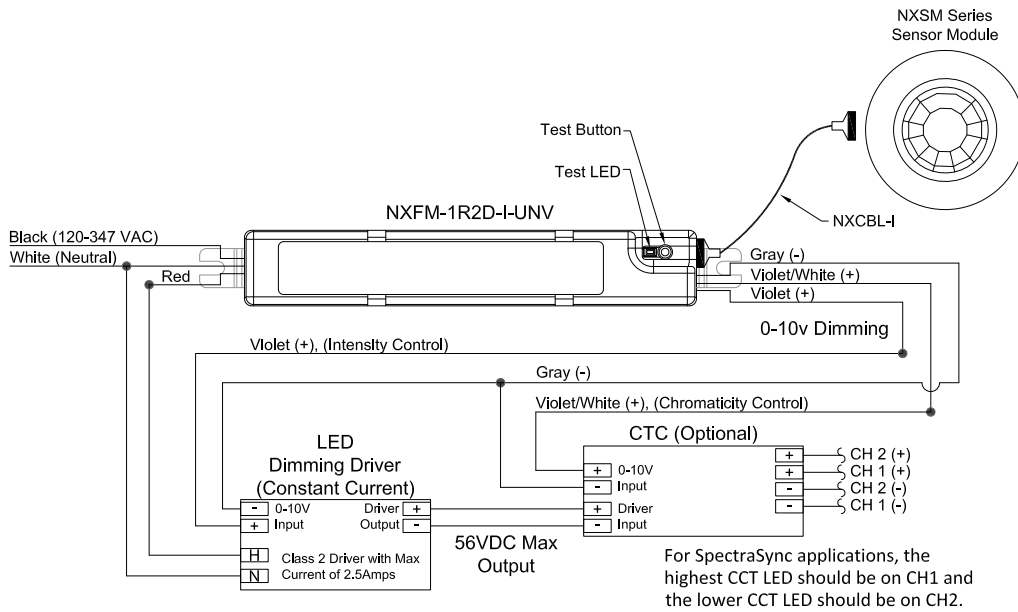
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WIRING DIAGRAMS



NXFM-1R2D-O-UNV with CTC



NXFM-1R2D-I-UNV with CTC