National Electrical Manufacturers Association

A NEMA Joint Sections Committee Document
Bulletin No. 119

Identification of Lighting Control Conductor Insulation, Technical Clarification Bulletin

Prepared by

Building Wire & Cable Section
Ballast & Driver Section
Emergency Lighting Section
Lighting Controls Section
Luminaire Section

National Electrical Manufacturers Association
1300 North 17th Street, Suite 900
Rosslyn, Virginia 22209

Approved: April 16, 2020

Disclaimer

The Standards or guidelines presented in a NEMA publication are considered technically sound at the time they are approved for publication. They are not a substitute for a product seller's or user's own judgment with respect to the particular product referenced in the Standard or guideline, and NEMA does not undertake to guarantee the performance of any individual manufacturer's products by virtue of this Standard or guide. Thus, NEMA expressly disclaims any responsibility for damages arising from the use, application, or reliance by others on the information contained in these Standards or guidelines.

Identification of Lighting Control Conductor Insulation

For many years, to facilitate wiring of light dimming applications, the convention was to use one purple color insulated conductor and one gray color insulated conductor to identify pairs of control circuit conductors.

The 2020 *National Electrical Code*® (NEC) (NFPA-70) contains a new requirement in section 410.69 that disallows the use of insulation colors reserved for the grounded branch circuit conductor (white or gray) or the equipment grounding conductor (green or green with a yellow stripe) for a field-connected control circuit conductor. This requirement will become effective on January 1, 2022.

In preparation for this new requirement, the NEMA Wire & Cable Section and Lighting Systems Division formed a Joint Section Committee with a goal of deciding on a replacement color for the gray control conductor now typically used. A decision was made that pink is an acceptable color for this conductor, so moving forward, the pair of control conductors can be identified with purple and pink color insulation.

To assist in compliance with the new requirement, section 410.69 allows permanent re-identification of gray-colored control conductors where they are visible and accessible. Marking tape, painting, or other effective means are permitted.

This new requirement necessitates substantial revisions in product and product literature (e.g., instruction sheets and wiring diagrams) to reflect the new color convention. To ensure compliance with this requirement, manufacturers of the wiring and devices involved are encouraged to initiate changes as expeditiously as possible to ensure all necessary changes are made by January 1, 2022. Prior to January 1, 2022, installers should consider re-identification of grey control conductors using marking tape, painting, or other effective means as permitted by 2020 NEC section 410.69.

§

© 2020 National Electrical Manufacturers Association