SPLICES – INDUSTRIAL WIRING

FACTORY AND FIELD-INSTALLED SPLICES FOR MINERAL INSULATED (MI) INDUSTRIAL WIRING CABLE

PRODUCT OVERVIEW

SPLICES FOR COPPER-SHEATHED CABLES

Factory and field-installed fire-rated and non-fire-rated splices are used to join individual lengths of nVent PYROTENAX cable for installations where the manufactured length is shorter than the run length. Field splices may also be used to repair damaged cables.

Factory-installed fire-rated and non-fire-rated splices are rugged, all welded in-line UL Listed splices for copper-sheathed wiring cables with up to seven conductors. In fire-rated applications, the splice is available for 0.402 in (10.2 mm) and larger diameter cables and provides up to two hours of fire protection at temperatures up to 1010°C (1850°F) based on the ASTM E119 time-temperature curve used in the UL 2196 fire test.

Field-installed non-fire-rated splice kits are available for copper-sheathed cables with up to seven conductors. These splice kits are also used to repair damaged cables. In non-fire-rated applications where the field-installed splice is installed outdoors or indoors where moisture is present, it must be protected with a moisture protection kit.

SPLICES FOR ALLOY 825 SHEATHED CABLES

Field-installed fire-rated splice kits are available for nVent PYROTENAX Alloy 825 sheathed cables with up to seven conductors. This kit includes both the field-installed splice and the fire protection kit. Tested by an independent laboratory, the fire-rated splice kit will provide protection up to 1093°C (2000°F) for 30 minutes based on UL 1709 rapid temperature rise curve when subjected to a heat flux of 65,000 BTU/ft² hr (200 kW/m²). For further information on splicing MI cable, contact nVent.

Industrial MI wiring cables are approved as a complete system only when used with the appropriate nVent PYROTENAX termination and splice kits. The use of nonapproved components will compromise the reliability of the system and will invalidate approvals and warranties.

For more information on splice kits for MI cable, contact your nVent representative or call (800) 545-6258.

SPLICES AND ACCESSORIES AVAILABLE FOR COPPER-SHEATHED CABLES

Factory-installed fire-rated or non-fire-rated splice (FRJ)
Field-installed non-fire-rated splice (STJ)
Field-installed moisture protection kit (STJMPR) (used with non-fire-rated splice)

SPLICES AVAILABLE FOR ALLOY 825 SHEATHED CABLES

Field-installed fire-rated splice (KMSPL) (includes splice and fire protection kit)
FACTORY-INSTALLED FIRE-RATED SPLICE FOR COPPER-SHEATHED CABLES

Splice type: Factory-installed (for cables 0.402 in (10.2 mm) and larger in diameter)

Temperature rating: 1010°C (1850°F) based on ASTM E119 two-hour time-temperature curve

Cable configurations: 1 to 7 conductors

Material: Cupro-nickel barrel with stainless-steel end cones

Dimensions (approximate):
- Cables up to 0.768 in (19.5 mm) OD: 10 in long x 1-3/4 in diameter (25.4 cm long x 4.4 cm diameter)
- Cables greater than 0.768 in (19.5 mm) OD: 10 in long x 2 in diameter (25.4 cm long x 5.1 cm diameter)

APPROVALS

- A Classified Electrical Circuit Integrity System (FHIT), System No. 1850, in the UL Fire Resistance Directory when used with System no. 1850 cable
- A Listed Electrical Circuit Integrity System (FHITC), System No. 1850, in the ULC Fire Resistance Directory when used with System no. 1850 cable

Order reference Description

FRJ+Cable reference number Factory-installed fire-rated splice (for System 1850 cables only)

Example: Order reference number for fire-rated splice for 1/1-496 System 1850 cable is: FRJ1/1-496.
FIELD-INSTALLED NON-FIRE-RATED SPLICE AND MOISTURE PROTECTION KIT FOR COPPER-SHEATHED CABLES

FIELD-INSTALLED NON-FIRE-RATED SPLICE KIT (STJ)

- Splice type: Field-installed
- Continuous Exposure Temperature: Single conductor: 90°C (194°F), Multi conductor: 105°C (221°F)
- Cable configurations: All single and multiconductor cables
- Material: Copper barrel with brass gland connectors
- Dimensions (approx.): 13 in long x 2 in dia. (33 cm long x 5 cm dia.)

MOISTURE PROTECTION KIT (STJMPRO)

- Type: Field-installed
- Continuous Exposure Temperature: 90°C (194°F)
- Cable configurations: All single and multiconductor cables
- Material: Heat-shrinkable tubing

APPROVALS

- Nonhazardous Locations
- Order Reference | Description
- ST J+Cable reference number | Field-installed splice (for System 1850 cables)
- STJMPRO12B | Moisture protection kit for 1/2” Conn size, 0.220 - 0.370” cable OD
- STJMPRO12C | Moisture protection kit for 1/2” Conn size, 0.371 - 0.418” cable OD
- STJMPRO34A | Moisture protection kit for 3/4” Conn size, 0.324 - 0.621” cable OD
- STJMPRO11A | Moisture protection kit for 1” Conn size, 0.621 - 0.699” cable OD
- STJMPRO114A | Moisture protection kit for 1-1/4” Conn size, 0.699 - 1.000” cable OD

Example: Order reference number for field-installed splice for 1/1-496 System 1850 cable is: STJ1/1-496.

FIELD-INSTALLED FIRE-RATED SPLICE FOR ALLOY 825 SHEATHED CABLES (KMSPL)

- Splice type: Field-installed
- Fire protection kit temperature rating: 1093°C (2000°F) for 30 minutes based on UL 1709 rapid temperature rise curve when subjected to a heat flux of 65,000 BTU/ft² hr (200 kW/m²)
- Cable configurations: 1 to 7 conductors
- Material: Intumescent epoxy
- Dimensions approx.:
  - KMSPL12-34: 17 in long x 3-3/4 in dia. (43 cm long x 9.5 cm dia.) (for MI cables using 1/2” NPT and 3/4” NPT gland connectors)
  - KMSPL1-114: 20 in long x 5 in dia. (51 cm long x 12.7 cm dia.) (for MI cables using 1” NPT and 1-1/4” NPT gland connectors)

Note: Splice kit is selected based on cable diameter and gland size. Contact nVent for assistance in selecting the appropriate splice kit for Alloy 825 sheath MI wiring cables.