

# SPLICES – INDUSTRIAL WIRING



**PYROTENAX**

## 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 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)

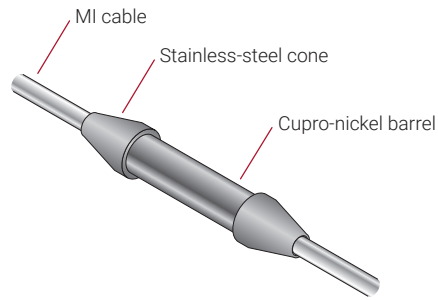
#### SPLICES FOR ALLOY 825 SHEATHED CABLES

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/ft<sup>2</sup> hr (200 kW/m<sup>2</sup>). 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.

## 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)	<table border="0"> <tr> <td>Cables up to 0.768 in (19.5 mm) OD</td> <td>10 in long x 1-3/4 in diameter (25.4 cm long x 4.4 cm diameter)</td> </tr> <tr> <td>Cables greater than 0.768 in (19.5 mm) OD</td> <td>10 in long x 2 in diameter (25.4 cm long x 5.1 cm diameter)</td> </tr> </table>	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)
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## APPROVALS



Nonhazardous Locations

- 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



UL Classified, 2-hour fire-resistive cable, tested to UL 2196



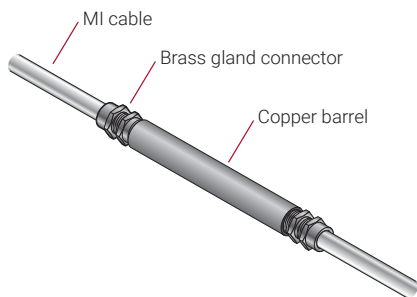
ULC Listed, 2-hour fire-resistant cable, tested to ULC-S139

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)



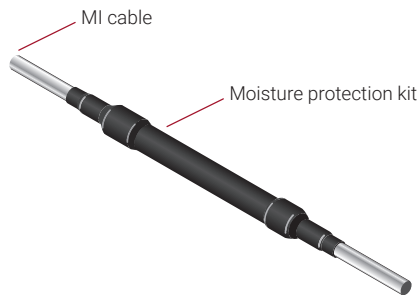
Splice type	Field-installed
Continuous Exposure Temperature	Single conductor: 90°C (194°F) Multi conductor: 105°C (221°F)
Cable configurations	All single and multiconductor cables
Material	Copper barrel with brass gland connectors
Dimensions (approx.)	13 in long x 2 in dia. (33 cm long x 5 cm dia.)

### APPROVALS



Nonhazardous Locations

### 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

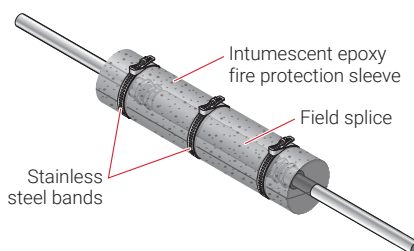


Nonhazardous Locations

Order Reference	Description
STJ+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
STJMPRO1A	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/ft <sup>2</sup> hr (200 kW/m <sup>2</sup> )
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.

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