

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, as described in *The Project Resource Manual—CSI Manual of Practice, Fifth Edition*.

This section must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all "Specifier Notes" after editing this section.

Section numbers are from *MasterFormat 2010 Update*.

SECTION 27 05 83 CABLE CONNECTIONS FOR COMMUNICATION SYSTEMS

Specifier Notes: Delete any information below in Parts 1, 2 or 3 which is not required or relevant for the project.

PART 1 – GENERAL

1.01 SUMMARY

- A. This section includes compression style connectors for digital coaxial cable applications.

1.02 REFERENCES

- A. Society of Cable Telecommunication Engineers (SCTE)
 - 1. ANSI/SCTE 60 Test Method for Interface Moisture Migration Double Ended
 - 2. ANSI/SCTE 98 Test Method for Withstand Torque
 - 3. ANSI/SCTE 99 Test Method for Axial Pull Connector/Drop Cable
 - 4. ANSI/SCTE 103 Test Method for Contact Resistance
 - 5. ANSI/SCTE 123 Specification for F Connector, Male, Feed-through
 - 6. ANSI/SCTE 143 Test Method for Salt Spray
- B. Military Specification
 - 1. MIL-C-39012 General Specifications for Connectors, Coaxial, Radio Frequency

1.03 SUBMITTALS

- A. Comply with Section 01 33 00 – Submittal Procedures.
- B. Product Data:
 - 1. Submit manufacturer's descriptive literature and product specifications for each product.
 - 2. Manufacturer's product drawings.
- C. Manufacturer's installation instructions

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Products shall be free of defects in material and workmanship.

1.05 WARRANTY

- A. Product is warranted free of defects in material and workmanship.
- B. Product is warranted to perform the intended function within design limits.

PART 2 – PRODUCTS

2.01 GENERAL

- A. The following compression connectors for digital coaxial cable shall be available.
1. SNS1P__ series hex nut one-piece F style connectors for series 59 and series 6 cable.
 2. SNC6U series knurled hex nut continuity F style connectors for series 6 cable.
 3. SNS1P__ A series aluminum hex nut one-piece F style connectors for 59 and series 6 cable.
 4. SNS__ series environmentally sealed F style connectors for series 59 and series 6 cable.
 5. 90SNS1P6U series right angle F style for series 6 cable.
 6. SNS351 F style connector for digital drop cables.
 7. SNS320QR F style connector for flooded on non-flooded QR 320 cable.
 8. SNS1P__ series BNC style connectors for series 59 and series 6 cable.
- B. Compression connectors must use appropriate cable preparation and compression tools in order to assure the proper mechanical, environmental and electrical performance.

2.02 MANUFACTURERS

- A. Acceptable Manufacturers:
ABB Installation Products Inc.
860 Ridge Lake Boulevard
Memphis, Tennessee 38120
800-816-7809, 901-252-5000
electrification.us.abb.com
- Products: Snap-N-Seal® Compression Connectors

2.03 DESIGN AND PERFORMANCE REQUIREMENTS

- A. Snap-N-Seal® F and BNC series compression connectors shall be available for the following cable types:
1. Series 59 and series 6, single braid, tri-shield and quad-shield
 2. QR 320 (F series only)
- B. Snap-N-Seal® F and BNC series compression connectors shall have a brass nut, post, body and collar except as noted below.
1. SNSIP__ A series shall have an aluminum nut and collar
- C. Snap-N-Seal® F series compression connectors shall have a nickel-tin (collar and nut) or tin (internal post) plated finish.
- D. Snap-N-Seal® BNC series compression connectors shall have nickel plated finish.
- E. Snap-N-Seal® F and BNC series compression connector sleeves shall be molded from a UV resistant acetal plastic.
- F. Snap-N-Seal® F and BNC series compression connector o-ring shall be ethylene propylene.
- G. Snap-N-Seal® F and BNC series compression connectors shall have a return loss of >-30 dB up to 1GHz typical.
- H. Snap-N-Seal® F and BNC series compression connectors shall have an insertion loss of <-0.20 dB up to 1GHz typical.

- I. Snap-N-Seal® F series compression connectors shall have RFI shielding of -85 dB typical (60% bonded foil). Snap-N-Seal® BNC series compression connectors shall have RFI shielding of -65 dB typical (60% bonded foil).
- J. Snap-N-Seal® F and BNC series compression connectors shall have a cable retention force of 40 lbs minimum per ANSI/SCTE 99 2009.
- K. Snap-N-Seal® F and BNC series compression connectors shall have a cable insertion force <20 lbs.
- L. Snap-N-Seal® F and BNC series compression connectors shall have an operating temperature range of -40°F (-40°C) to 140°F (60°C).
- M. Snap-N-Seal® F series compression connectors for use outdoors shall pass 1000 hrs salt fog per ANSI/SCTE 143 2007.
- N. Snap-N-Seal® F series compression connectors for use outdoors shall pass moisture migration test per ANSI/SCTE 60 2004.
- O. Snap-N-Seal® F and BNC series compression connectors shall comply with all applicable ANSI/SCTE requirements.
- P. Snap-N-Seal® BNC series compression connectors shall incorporate a male plug interface designed to nominal MIL-C-39012 specifications.
- Q. Snap-N-Seal® F and BNC series compression connectors shall be RoHS compliant.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Installation shall be in accordance to manufacturer's instructions.
- B. Reference manufacturer's instructions and literature for the correct compression tool.

END OF SECTION