

SECTION 27 15 43
COMMUNICATIONS FACEPLATES AND MODULAR CONNECTORS

Part 1 General

1.1 Summary

- 1.1.1 This section shall govern the products and installation of communications faceplates and modular jacks.

1.2 Related Documents

- 1.2.1 The latest versions of the following codes, standards, and guidelines shall be followed. Bring to CCS' immediate attention where construction documents or conditions differ from requirements in codes, standards, guidelines and specifications.

- 1.2.2 The following codes, as required by law:

Ontario Electrical Safety Code (OESC)

Ontario Building Code (OBC)

- 1.2.3 The following standards:

1. ANSI/TIA-568-C.0, Generic Telecommunications Cabling for Customer Premises

2. ANSI/TIA-568-C.2, Balanced Twisted-Pair Telecommunications Cabling and Components Standards

3. ANSI/TIA-568-C.4, Broadband Coaxial Cabling and Components Standard

4. TIA-569-C, Commercial Building Standard for Telecommunications Pathways and Spaces

5. TIA-606-B, Administration Standard for the Telecommunications Infrastructure of Commercial Buildings

- 1.2.4 The following guidelines:

1. BICSI, Telecommunications Distribution Methods Manual (TDMM)

2. BICSI, Information Transport Systems Installation Methods Manual (ITSIMM)

- 1.2.5 The following project specifications:

1. 27 05 33 Conduits and Backboxes for Communications Systems

2. 27 05 39 Surface Raceways for Communications Systems

3. 27 05 53 Identification for Communications Systems

1.3 Quality Assurance

- 1.3.1 Faceplates and modular connectors are to be covered by the Contractor's and Manufacturer's System Warranty

1.4 Submittals

- 1.4.1 The following submittals are due at the Pre-Construction Phase, in accordance with submittal requirements in Section 27 05 00 Communications:

1. Product Information

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a) Provide manufacturer's product information cutsheet or specifications sheet with the specific product number identified or filled out.

2. Shop Drawings

1.4.2 The following submittals are due Post-Construction, in accordance with the submittal requirements in Section 27 05 00:

1. Record Drawings

2. Manufacturer and Maintenance Manuals for all installed equipment.

a) Provide manufacturer's product information cutsheet or specifications sheet with the specific product number identified or filled out.

b) List of bill of materials, including all parts, pieces and connectors required for installation of the cable tray system.

Part 2 Product

2.1 UTP Termination Modules

2.1.1 All UTP termination modules shall have the following minimum performance characteristics:

Modular jack current rating	1.5 Amperes maximum
Modular jack durability	1,000 mating cycles
Modular jack contact pressure	100 grams minimum per contact
Dielectric voltage strength	1,000 V RMS at 60Hz for 1 minute
Insulation resistance	200 M Ω minimum
Contact resistance	1 M Ω per contact
IDC termination connectors resistance	100 M Ω between clips

2.1.2 The contact material of the jack in a modular jack connector shall be phosphor bronze with 50 micro-inches of gold over nickel.

2.1.3 UTP termination modules shall be of the same category as the UTP cabling to ensure that manufacturer end to end warranties can be attained.

2.1.4 UTP cables shall be terminated with modules as listed below. New building construction shall use 6A products for data.

Specified Product:

	Cat.	Colour	Part No.	System
Panduit	3	Black		Voice
Panduit	6	Orange	NK6TMOR	Data
Panduit	6A	Orange	NK6X88MOR	Data
Hubbell	6	Orange	HXJ6OR	Data
Hubbell	6A	Orange	HJ6AOR	Data

2.2 Coaxial Connectors

2.2.1 Coaxial connectors shall be installed on both ends of the horizontal cable. Connectors shall be F-type and have a screw type coupling for quick connect/disconnect of coaxial cable terminations.

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2.2.2 It shall be a crimp on integral ferrule connector designed to fit the coaxial cable specified. The connector shall be installed using the connector manufacturer's approved crimping tool.

2.2.3 The coaxial connectors shall have the following minimum performance and technical characteristics:

Working Voltage	500 Volts
Frequency Range	0 to 890 MHz
Impedance	75 Ω
Return Loss	25 dB

Specified Product:

Snap & Seal	Connector	FRG625	Two per cable
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2.3 Workstation Faceplates and Adapters

2.3.1 Workstation outlets shall be supplied and installed for all terminations at the workstation end and as further specified below to suit the application.

2.3.2 The Communications Contractor shall confirm colour of outlets prior to placing order.

2.3.3 Workstation outlets shall be manufactured by the end to end solution manufacturer when available.

2.3.4 Modular Furniture Faceplates

- .1 Modular furniture faceplates shall be installed in all furniture outlets that have a modular furniture knockout shall consist of a minimum of (3) ports.
- .2 Each outlet shall be installed with the specified termination modules or a blank insert. No openings shall remain exposed.
- .3 Communications Contractor shall verify furniture manufacturer and modular faceplate requirement prior to placing order

Specified Product:

	No. of Ports	Part No.
Panduit	4-port	NK4MFBL

2.3.5 Decora Adapters

- .1 Decora style adapters and faceplates shall be installed for all wall outlets, floor or raceway outlets and shall consist of a minimum of (2) ports.
- .2 Each outlet shall be installed with the specified termination modules or a blank insert. No openings shall remain exposed.

Specified Product:

	No. of Ports	Part No.
Panduit	2-port	NK2RMFxx
Panduit	4-port	NK4RMFxx

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2.3.6 Wall Faceplates

Specified Product:

	No. of Ports	Part No.
Panduit	2-port	NK2Fxx
Panduit	4-port	NK4Fxx
Panduit	6-port	NK6Fxx

2.3.7 Surface Mount Boxes (Stand Alone)

- .1 Surface mount boxes shall be installed for all furniture outlets that do not have a modular furniture knockout, exposed ceiling outlets or any location not provided with an electrical backbox.
- .2 The surface mounted box shall consist of a minimum of (2) ports.
- .3 Each outlet shall be installed with the specified termination modules or a blank insert. No openings are to remain exposed.

Specified Product:

	No. of Ports	Part No.
Panduit	2-port	NK2Bxx-A
Panduit	4-port	NK4Bxx-A

Part 3 Execution

3.1 General

- 3.1.1 Follow all manufacturers' instructions.
- 3.1.2 All category modular jacks shall be terminated using the T568A termination scheme specified in ANSI/TIA-568-C.0.
- 3.1.3 Coordinate with all other trades prior to pre-construction submittals and installation.

3.2 Faceplates

- 3.2.1 Faceplates shall be installed straight and plumb in all directions.
- 3.2.2 Should the faceplate not cover the entirety of the outlet box hole in the wall due to overcutting or rough workmanship, the wall shall be appropriately patched and painted for a neat and clean finished appearance.
- 3.2.3 Fill all module openings with blank modules. Blank insert plates shall be manufactured by the end to end solution manufacturer and be of the same colour as the workstation outlet.

End of Section 27 15 43