C400-NFDM

Base Product



Product Classification

Product Type Braided cable assembly

Product Brand CNT®
Product Series CNT-400

General Specifications

Attachment, Connector A Field attachment

Body Style, Connector AStraightBody Style, Connector BStraightCable FamilyCNT-400Interface, Connector AN FemaleInterface, Connector B7-16 DIN Male

Specification Sheet Revision Level A

Variable Length For custom lengths contact 828-324-2200 or 1-800-982-1708 (toll free), or your local

CommScope representative

Dimensions

 Length
 0 m | 0 ft

 Nominal Size
 0.400 in

VSWR/Return Loss

Frequency Band VSWR Return Loss (dB)

700–3000 MHz 1.433 14.99

Jumper Assembly Sample Label





Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

Included Products

400BPDM-C - 7-16 DIN Male for CNT-400 braided cable

400BPDM-CR - 7-16 DIN Male for CNT-400 and CNT-400-Flex braided cable

400PDM-C-7-16 DIN Male for CNT-400 braided cable400PNF-C-Type N Female for CNT-400 braided cable

CNT-400 - CNT-400, CNT® 50 Ohm Braided Coaxial Cable, variable, black PE jacket

CNT-400-SFR - CNT-400-SFR, C CNT® 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant

polyolefin jacket, B2ca S1a d0 a1 Compliant

CNT-400-W - CNT-400-W, CNT® 50 Ohm Braided Coaxial Cable, variable, white PE jacket





7-16 DIN Male for CNT-400 braided cable

Product Classification

Product Type Braided cable connector

Product Brand CNT®

General Specifications

Body Style Straight

Inner Contact Attachment Method Captivated

Inner Contact Plating Silver

Interface 7-16 DIN Male

Outer Contact Attachment Method Clamp

Dimensions

Outer Contact Plating

Width 35 mm | 1.378 in

Length 40.73 mm | 1.604 in

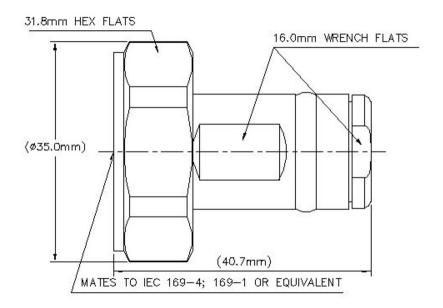
Trimetal

Diameter 35 mm | 1.378 in

Nominal Size 0.405 in

Outline Drawing





Electrical Specifications

Insertion Loss, typical 0.05 dB

Average Power at Frequency 580.0 W @ 900 MHz

Cable Impedance50 ohmConnector Impedance50 ohmdc Test Voltage2500 V

Inner Contact Resistance, maximum1.5 mOhmInsulation Resistance, minimum10000 MOhmOperating Frequency Band0 - 6000 MHzOuter Contact Resistance, maximum0.4 mOhm

RF Operating Voltage, maximum (vrms) 894 V

VSWR/Return Loss

 Frequency Band
 VSWR
 Return Loss (dB)

 0-3000 MHz
 1.05
 32.26

3000–6000 MHz 1.119 25.01

Mechanical Specifications

Connector Retention Tensile Force 330 N | 74.187 lbf

Connector Retention Torque 0.56 N-m | 4.956 in lb

Coupling Nut Proof Torque 35 N-m | 309.776 in lb

Coupling Nut Proof Torque Method IEC 61169-4:9.3.6

Coupling Nut Retention Force 1000 N | 224.809 lbf

Coupling Nut Retention Force Method IEC 61169-4:15.2.6

Interface Durability 500 cycles

Interface Durability Method IEC 61169-4:17

Mechanical Shock Test Method IEC 60068-2-27

Environmental Specifications

Operating Temperature $-40 \,^{\circ}\text{C} \text{ to } +85 \,^{\circ}\text{C} \, (-40 \,^{\circ}\text{F to } +185 \,^{\circ}\text{F})$

Storage Temperature -65 °C to +125 °C (-85 °F to +257 °F)

Attenuation, Ambient Temperature 20 °C | 68 °F

Average Power, Ambient Temperature 40 °C | 104 °F

Average Power, Inner Conductor Temperature 100 °C | 212 °F

Climatic Sequence Test Method IEC 60068-1

Corrosion Test Method IEC 60068-2-11

Damp Heat Steady State Test Method IEC 60068-2-3

Immersion Depth 1 m

Immersion Test Mating Mated

Immersion Test Method IEC 60529:2001, IP68

Thermal Shock Test Method IEC 60068-2-14

Vibration Test Method IEC 60068-2-6

Packaging and Weights

Weight, net 44.58 g | 0.098 lb

Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Below maximum concentration value

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

REACH-SVHC Compliant as per SVHC revision on www.commscope.com/ProductCompliance

ROHS Compliant UK-ROHS Compliant





* Footnotes

Insertion Loss, typical 0.05√-freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth Immersion at specified depth for 24 hours





7-16 DIN Male for CNT-400 and CNT-400-Flex braided cable

Product Classification

Product Type Braided cable connector

Product Brand CNT®

General Specifications

Body StyleStraightInner Contact Attachment MethodSolderInner Contact PlatingSilver

Interface 7-16 DIN Male

 Outer Contact Attachment Method
 Crimp

 Outer Contact Plating
 Trimetal

Dimensions

 Width
 35 mm | 1.378 in

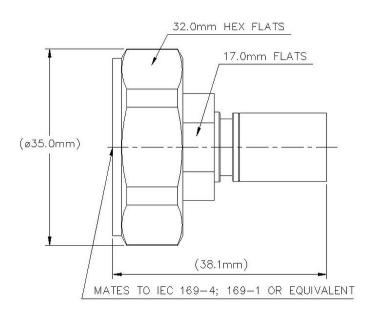
 Length
 38.12 mm | 1.501 in

 Diameter
 35 mm | 1.378 in

Nominal Size 0.405 in

Outline Drawing





Electrical Specifications

Insertion Loss, typical 0.05 dB

Average Power at Frequency 580.0 W @ 900 MHz

Cable Impedance50 ohmConnector Impedance50 ohmdc Test Voltage2500 V

Inner Contact Resistance, maximum1.5 mOhmInsulation Resistance, minimum10000 MOhmOperating Frequency Band0 - 6000 MHz

Outer Contact Resistance, maximum0.4 mOhmRF Operating Voltage, maximum (vrms)894 V

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0-3000 MHz	1.08	28.3
3000-6000 MHz	1.2	20.83

Mechanical Specifications

Connector Retention Tensile Force 330 N | 74.187 lbf

Connector Retention Torque0.56 N-m4.956 in lbCoupling Nut Proof Torque35 N-m309.776 in lb

Coupling Nut Proof Torque Method IEC 61169-4:9.3.6

Coupling Nut Retention Force 1000 N | 224.809 lbf

Coupling Nut Retention Force Method IEC 61169-4:15.2.6

Interface Durability 500 cycles

Interface Durability MethodIEC 61169-4:17Mechanical Shock Test MethodIEC 60068-2-27

Environmental Specifications

Operating Temperature $-40 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ (-40 $^{\circ}\text{F}$ to $+185 \,^{\circ}\text{F}$)

Storage Temperature $-65 \,^{\circ}\text{C} \text{ to } +125 \,^{\circ}\text{C} \, (-85 \,^{\circ}\text{F to } +257 \,^{\circ}\text{F})$

Attenuation, Ambient Temperature $20 \, ^{\circ}\text{C} \mid 68 \, ^{\circ}\text{F}$ Average Power, Ambient Temperature $40 \, ^{\circ}\text{C} \mid 104 \, ^{\circ}\text{F}$ Average Power, Inner Conductor Temperature $100 \, ^{\circ}\text{C} \mid 212 \, ^{\circ}\text{F}$

Climatic Sequence Test Method IEC 60068-1

Corrosion Test Method IEC 60068-2-11

Damp Heat Steady State Test Method IEC 60068-2-3

Thermal Shock Test Method IEC 60068-2-14

Vibration Test Method IEC 60068-2-6

Water Jetting Test Mating Mated

Water Jetting Test Method IEC 60529:2001, IP65

Packaging and Weights

Weight, net 57.2 g | 0.126 lb

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

* Footnotes



Insertion Loss, typical 0.05√ freq (GHz) (not applicable for elliptical waveguide)



7-16 DIN Male for CNT-400 braided cable

Product Classification

 Product Type
 Braided cable connector

 Product Brand
 CNT® | ConQuest®

General Specifications

Body StyleStraightInner Contact Attachment MethodCaptivatedInner Contact PlatingSilver

Interface 7-16 DIN Male

 Outer Contact Attachment Method
 Clamp

 Outer Contact Plating
 Trimetal

 Pressurizable
 No

Dimensions

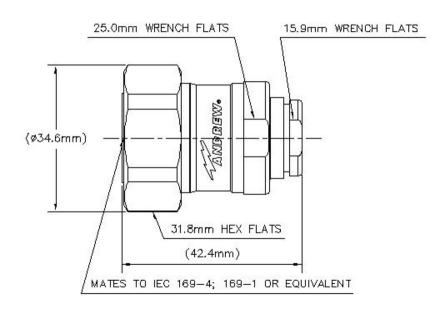
 Width
 34.6 mm | 1.362 in

 Length
 42.41 mm | 1.67 in

 Diameter
 34.6 mm | 1.362 in

Nominal Size 0.405 in

Outline Drawing



Electrical Specifications

Inner Contact Resistance, maximum

Insertion Loss, typical 0.05 dB

Average Power at Frequency 580.0 W @ 900 MHz

Cable Impedance50 ohmConnector Impedance50 ohmdc Test Voltage2500 V

Insulation Resistance, minimum10000 MOhmOperating Frequency Band0 - 6000 MHz

Outer Contact Resistance, maximum1.5 mOhmPeak Power, maximum16 kW

RF Operating Voltage, maximum (vrms) 894 V

VSWR/Return Loss

Frequency Band VSWR Return Loss (dB) 0-3000 MHz 1.058 31

3000–6000 MHz 1.119 25.01

Mechanical Specifications

Connector Retention Tensile Force 330 N | 74.187 lbf

COMMSCOPE®

0.4 mOhm

Connector Retention Torque 0.56 N-m | 4.956 in lb

Coupling Nut Proof Torque 50 N-m | 442.537 in lb

Coupling Nut Proof Torque Method IEC 61169-4:9.3.6

Coupling Nut Retention Force 800 N | 179.847 lbf

Coupling Nut Retention Force Method IEC 61169-4:15.2.6

Interface Durability 500 cycles

Interface Durability Method IEC 61169-4:17

Mechanical Shock Test Method IEC 60068-2-27

Environmental Specifications

Operating Temperature $-40 \,^{\circ}\text{C} \text{ to } +85 \,^{\circ}\text{C} \, (-40 \,^{\circ}\text{F to } +185 \,^{\circ}\text{F})$

Storage Temperature -65 °C to +125 °C (-85 °F to +257 °F)

Attenuation, Ambient Temperature 20 °C | 68 °F

Average Power, Ambient Temperature 40 °C | 104 °F

Average Power, Inner Conductor Temperature 100 °C | 212 °F

Climatic Sequence Test Method IEC 60068-1

Corrosion Test Method IEC 60068-2-11

Damp Heat Steady State Test Method IEC 60068-2-3

Immersion Depth 1 m

Immersion Test Mating Mated

Immersion Test Method IEC 60529:2001, IP68

Thermal Shock Test Method IEC 60068-2-14

Vibration Test Method IEC 60068-2-6

Packaging and Weights

Weight, net 125.06 g | 0.276 lb

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

* Footnotes

Insertion Loss, typical 0.05√ freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth

Immersion at specified depth for 24 hours



400PNF-C



Type N Female for CNT-400 braided cable

Product Classification

 Product Type
 Braided cable connector

 Product Brand
 CNT® | ConQuest®

General Specifications

Body Style Straight
Inner Contact Attachment Method Captivated
Inner Contact Plating Gold

 Interface
 N Female

 Outer Contact Attachment Method
 Clamp

 Outer Contact Plating
 Trimetal

Pressurizable No

Dimensions

 Width
 19 mm | 0.748 in

 Length
 40.84 mm | 1.608 in

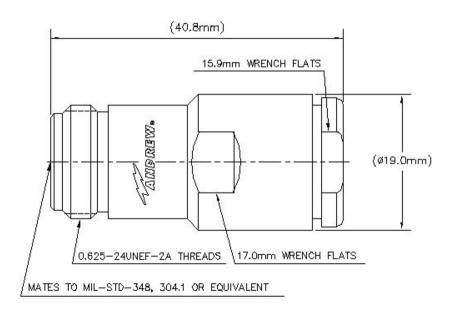
 Diameter
 19 mm | 0.748 in

Nominal Size 0.405 in

Outline Drawing



400PNF-C



Electrical Specifications

Insertion Loss, typical 0.05 dB

Average Power at Frequency 580.0 W @ 900 MHz

Cable Impedance50 ohmConnector Impedance50 ohmdc Test Voltage2500 VInner Contact Resistance, maximum1 mOhm

Insulation Resistance, minimum5000 MOhmOperating Frequency Band0 - 6000 MHz

Outer Contact Resistance, maximum 0.25 m0hm
Peak Power, maximum 10 kW

Peak Power, maximum 10 kW

RF Operating Voltage, maximum (vrms) 707 V

VSWR/Return Loss

 Frequency Band
 VSWR
 Return Loss (dB)

 0-3000 MHz
 1.045
 33.15

3000–6000 MHz 1.172 22.03

Mechanical Specifications

Connector Retention Tensile Force 330 N | 74.187 lbf

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400PNF-C

Connector Retention Torque 0.56 N-m | 4.956 in lb | 0.75 N-m | 6.638 in lb

Insertion Force 28 N | 6.295 lbf
Insertion Force Method IEC 61169-16:9.3.5

Interface Durability 500 cycles

Interface Durability Method IEC 61169-16:9.5

Mechanical Shock Test Method IEC 60068-2-27

Environmental Specifications

Operating Temperature $-40 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ (-40 $^{\circ}\text{F}$ to $+185 \,^{\circ}\text{F}$)

Storage Temperature $-65 \,^{\circ}\text{C}$ to $+125 \,^{\circ}\text{C}$ (-85 $^{\circ}\text{F}$ to $+257 \,^{\circ}\text{F}$)

Attenuation, Ambient Temperature20 °C | 68 °FAverage Power, Ambient Temperature40 °C | 104 °FAverage Power, Inner Conductor Temperature100 °C | 212 °F

Climatic Sequence Test MethodIEC 60068-1Corrosion Test MethodIEC 60068-2-11Damp Heat Steady State Test MethodIEC 60068-2-3

Immersion Depth1 mImmersion Test MatingMated

Immersion Test Method IEC 60529:2001, IP68

Thermal Shock Test Method IEC 60068-2-14

Vibration Test Method IEC 60068-2-6

Packaging and Weights

Weight, net 53.19 g | 0.117 lb

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

* Footnotes

Insertion Loss, typical 0.05√-freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth Immersion at specified depth for 24 hours

CNT-400, CNT® 50 Ohm Braided Coaxial Cable, variable, black PE jacket



Product Classification

Product Type Braided coaxial cable

Product Brand CNT®
Product Series CNT-400

General Specifications

Braid Coverage 90 %

Cable Type CNT-400

Jacket Color Black

Dimensions

Diameter Over Dielectric7.24 mm | 0.285 inDiameter Over Jacket10.29 mm | 0.405 inDiameter Over Tape7.391 mm | 0.291 inInner Conductor OD2.74 mm | 0.108 inOuter Conductor OD8.08 mm | 0.318 in

Nominal Size 0.400 in

Electrical Specifications

Cable Impedance 50 ohm

Capacitance 78 pF/m | 23.774 pF/ft

dc Resistance, Inner Conductor4.69 ohms/km | 1.43 ohms/kftdc Resistance, Outer Conductor5.61 ohms/km | 1.71 ohms/kft

dc Test Voltage $2500 \ \lor$ Jacket Spark Test Voltage (rms) $4000 \ \lor$

CNT-400

Maximum Frequency 16.2 GHz

Operating Frequency Band 30 - 6000 MHz

Peak Power16 kWShielding Effectiveness90 dBVelocity85 %

Material Specifications

Braid Material Tinned copper

Dielectric Material Foam PE

Jacket Material Non-halogenated PE

Inner Conductor Material Copper-clad aluminum wire

Shield Tape Material Aluminum

Mechanical Specifications

Minimum Bend Radius, single Bend 25.4 mm | 1 in

Tensile Strength 73 kg | 160.937 lb

Bending Moment 0.7 N-m | 6.196 in lb

Flat Plate Crush Strength 0.7 kg/mm | 39.198 lb/in

Environmental Specifications

Installation temperature $-40 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ (-40 $^{\circ}\text{F}$ to $+185 \,^{\circ}\text{F}$)

Operating Temperature $-40 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ (-40 $^{\circ}\text{F}$ to $+185 \,^{\circ}\text{F}$)

Storage Temperature $-70 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ (-94 $^{\circ}\text{F}$ to $+185 \,^{\circ}\text{F}$)

Packaging and Weights

Cable weight 0.1 kg/m | 0.067 lb/ft

Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Below maximum concentration value

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

REACH-SVHC Compliant as per SVHC revision on www.commscope.com/ProductCompliance

ROHS Compliant UK-ROHS Compliant



CNT-400



CNT-400-SFR



CNT-400-SFR, C CNT® 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket, B2ca S1a d0 a1 Compliant

Product Classification

Product TypeBraided coaxial cable

Product Brand CNT®

Product Series CNT-400

General Specifications

Braid Coverage90 %Cable TypeCNT-400Jacket ColorBlack

Dimensions

 Diameter Over Dielectric
 7.24 mm | 0.285 in

 Diameter Over Jacket
 10.29 mm | 0.405 in

 Diameter Over Tape
 7.391 mm | 0.291 in

 Inner Conductor OD
 2.74 mm | 0.108 in

 Outer Conductor OD
 8.08 mm | 0.318 in

Nominal Size 0.400 in

Electrical Specifications

Cable Impedance 50 ohm

Capacitance 78 pF/m | 23.774 pF/ft

dc Resistance, Inner Conductor4.49 ohms/km | 1.369 ohms/kftdc Resistance, Outer Conductor5.61 ohms/km | 1.71 ohms/kft

dc Test Voltage 2500 V

Jacket Spark Test Voltage (rms) 4000 V

CNT-400-SFR

Maximum Frequency 16.2 GHz

Operating Frequency Band 30 - 6000 MHz

Peak Power16 kWShielding Effectiveness90 dBVelocity85 %

Material Specifications

Braid Material Tinned copper
Dielectric Material Foam PE

Jacket Material Non-halogenated, fire retardant polyolefin

Inner Conductor Material Copper-clad aluminum wire

Shield Tape Material Aluminum

Mechanical Specifications

Minimum Bend Radius, single Bend25.4 mm | 1 inTensile Strength73 kg | 160.937 lbBending Moment0.7 N-m | 6.196 in lbFlat Plate Crush Strength0.7 kg/mm | 39.198 lb/in

Environmental Specifications

Installation temperature $-40 \,^{\circ}\text{C}$ to $+60 \,^{\circ}\text{C}$ ($-40 \,^{\circ}\text{F}$ to $+140 \,^{\circ}\text{F}$)

Operating Temperature $-40 \,^{\circ}\text{C}$ to $+60 \,^{\circ}\text{C}$ ($-40 \,^{\circ}\text{F}$ to $+140 \,^{\circ}\text{F}$)

Storage Temperature $-40 \,^{\circ}\text{C}$ to $+60 \,^{\circ}\text{C}$ ($-40 \,^{\circ}\text{F}$ to $+140 \,^{\circ}\text{F}$)

EN50575 CPR Cable EuroClass Fire PerformanceB2caEN50575 CPR Cable EuroClass Smoke Ratings1aEN50575 CPR Cable EuroClass Droplets Ratingd0EN50575 CPR Cable EuroClass Acidity Ratinga1

Smoke Index Test MethodIEC 61034Toxicity Index Test MethodIEC 60754-2

Packaging and Weights

 $\textbf{Cable weight} \hspace{1.5cm} \textbf{0.1 kg/m } \hspace{0.2cm} \textbf{0.067 lb/ft}$

Regulatory Compliance/Certifications

CNT-400-SFR

Agency

Classification

CENELEC

EN 50575 compliant, Declaration of Performance (DoP) available

ISO 9001:2015

Designed, manufactured and/or distributed under this quality management system

CENELEC

CNT-400-W

CNT-400-W, CNT® 50 Ohm Braided Coaxial Cable, variable, white PE jacket



Product Classification

Product Type Braided coaxial cable

Product Brand CNT®
Product Series CNT-400

General Specifications

Braid Coverage 90 %

Cable Type CNT-400

Jacket Color White

Dimensions

 Diameter Over Dielectric
 7.24 mm | 0.285 in

 Diameter Over Jacket
 10.29 mm | 0.405 in

 Diameter Over Tape
 7.391 mm | 0.291 in

 Inner Conductor OD
 2.74 mm | 0.108 in

 Outer Conductor OD
 8.08 mm | 0.318 in

Nominal Size 0.400 in

Electrical Specifications

Cable Impedance 50 ohm

Capacitance 78 pF/m | 23.774 pF/ft

dc Resistance, Inner Conductor4.69 ohms/km | 1.43 ohms/kftdc Resistance, Outer Conductor5.61 ohms/km | 1.71 ohms/kft

dc Test Voltage 2500 VJacket Spark Test Voltage (rms) 4000 V

COMMSC PE®

CNT-400-W

Maximum Frequency 16.2 GHz

Operating Frequency Band 30 - 6000 MHz

Peak Power16 kWShielding Effectiveness90 dBVelocity85 %

Material Specifications

Braid Material Tinned copper

Dielectric Material Foam PE

Jacket Material Non-halogenated PE

Inner Conductor Material Copper-clad aluminum wire

Shield Tape Material Aluminum

Mechanical Specifications

Minimum Bend Radius, single Bend25.4 mm | 1 inTensile Strength73 kg | 160.937 lbBending Moment0.7 N-m | 6.196 in lb

Flat Plate Crush Strength 0.7 kg/mm | 39.198 lb/in

Environmental Specifications

Installation temperature $-40 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ (-40 $^{\circ}\text{F}$ to $+185 \,^{\circ}\text{F}$)

Operating Temperature $-40 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ (-40 $^{\circ}\text{F}$ to $+185 \,^{\circ}\text{F}$)

Storage Temperature $-70 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ (-94 $^{\circ}\text{F}$ to $+185 \,^{\circ}\text{F}$)

Packaging and Weights

Cable weight 0.1 kg/m | 0.067 lb/ft

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

