

ITT's NGCON Fiber Optic Connector System

The next generation connector system for Naval and other Military/Aero-Space applications

Consult Factory for C.O.T.S/MIL Spec Product Availability and Qualification Status



MIL-PRF-NGCON Compliant Fiber Optic Connector System

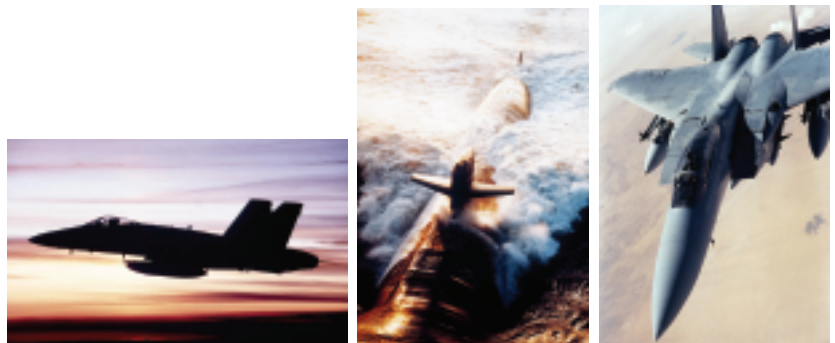
ITT's Next Generation Connector (NGCON) combines proven technology and features from connector standards 28876 and 38999. This new connector system was designed with innovations including genderless contacts and high density packaging. ITT led the high performance connector development effort and is an active member of the NGCON design committee.

Product Features

- Conforms to NGCON Military Standard
- Rear Release Termini
- Genderless Termini
- Wall-Mount & Jam-Nut Receptacle Configurations
- High Density Arrangements
- Operating Temperature Range: -55C to +200C.
- Environmental Sealing Terminus
- 125 mm Diameter Ceramic Ferrule
- Removable front insert
Easy access to termini for cleaning / inspections.

	Multimode	Singlemode
Ferrule (O.D.)	1.25 mm	1.25 mm
Fiber Type	62.5/125	SMF 28
Insertion Loss (dB typ.)	0.40	0.30
Maximum Loss (dB max.)	0.75	0.75
Return Loss (dB typ.)	35	50
Return Loss (dB min.)	30	50
Channel Servicing	Single	
Channel Repair	Single	
Cyclic Durability	500	

Applications include: Naval Shipboard / Dockside Communications and other Military Fiber Optic Interconnect Applications.

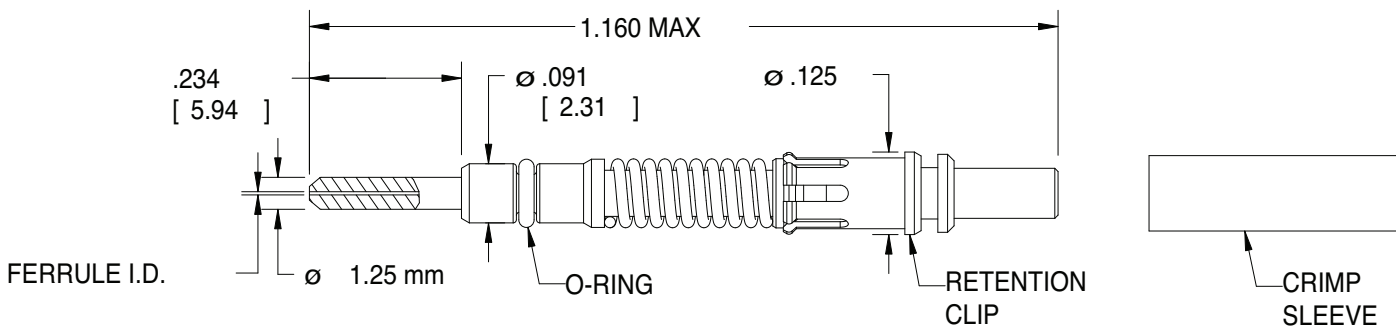


MIL-PRF-NGCON

NGCON Fiber Optic Connector System

Genderless Terminus design with Low Loss Optical Performance.

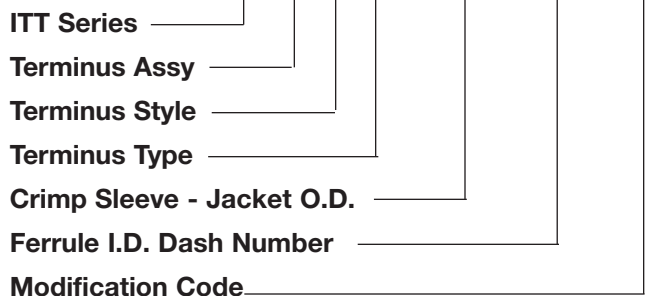
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Descriptive Part Number

NGCON / T 18 M 1 - 1260 - M0001

M29504/18 Genderless Terminus for use with MIL-PRF-NGCON style NGCON Connectors			
Fiber Size	Ferrule I.D.	Dash No.	ITT Part Number
Singlemode 9/125	125 +1/-0	-1250	031-9747-001
Singlemode 9/125	125.5 +1/-0	-1255	031-9747-003
Singlemode 9/125	126 +1/-0	-1260	031-9747-004
Multimode 50/125, 62.5/125	126 +1/-0	-1260	031-9747-005
Multimode 50/125, 62.5/125	127 +1/-0	-1270	031-9747-002
Multimode 100/140	142 +1/-0	-1420	031-9747-006
Multimode 100/140	145 +1/-0	-1450	031-9747-007
Multimode 50/125, 62.5/125/155	156 +3/-0	-1560	031-9747-008
Multimode 50/125, 62.5/125/155	157 +3/-0	-1570	031-9747-009
Multimode 100/140/172	173 +3/-0	-1730	031-9747-010
Multimode 100/140/172	175 +3/-0	-1750	031-9747-011



Terminus Type	Terminus Style
S – Singlemode	18 – Genderless Terminus
M – Multimode	19 – Dummy Terminus
	20 – Keyed Terminus

Crimp Sleeve - Jacket O.D

- 1 – 1.6mm - 2.0mm
- 2 – 1.8mm - 2.4mm
- 3 – 2.4mm - 3.0mm

Modification Code -

Consult Factory for Modification Codes (Omit for none)

- Crimp Sleeve may be ordered separately.
Part Number 252-0378-000

PRODUCT NOTES

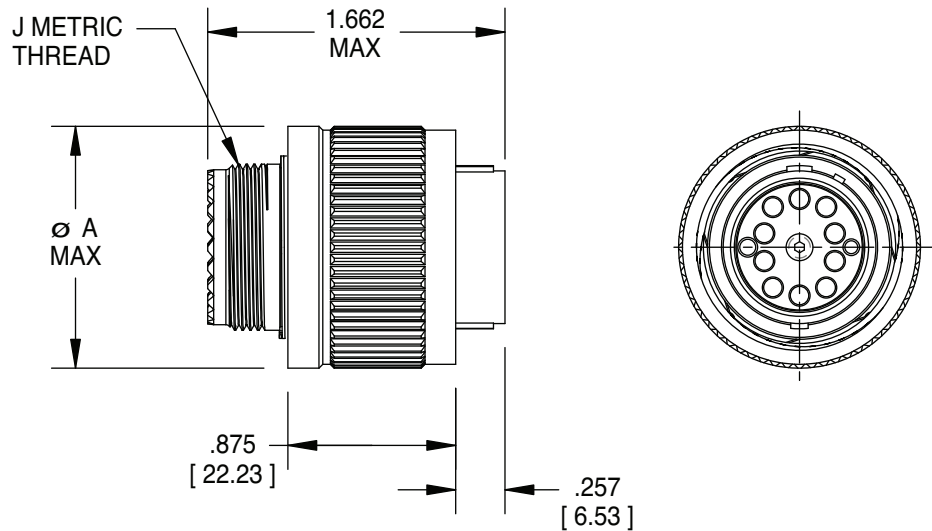
- 1. Packaging:** Packaging identification includes manufacturer's name and part number
- 2. Material / Finish:**
 Ferrule Connector assembly : Zirconia Ceramic/N.A.
 Terminus assembly: Stainless Steel / Passivate
 Retaining Clip: Beryllium Copper/NA
 Crimp Sleeve: Brass Alloy/N.A.
 O-Ring: Fluorosilicone
 Spring: High Tensile Stainless Steel/Passivate

- 3. Tooling:**
 Insertion: Tool Part Number: 274-0058-000
 Removal Tool Part Number: 274-0058-001
- 4. Instructions:** Consult factory for contact termination instructions and tooling.
- 5. Connector:** Genderless Terminus used in NGCON Plug and Receptacle configurations. See Page 56-58 for connector options.



Plug Connector (MIL-PRF-NGCON/2)

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Shell Size	Channels	A	J - Accessory Thread
11	2	1.028 (26.1)	M15 X 1
13	6	1.141 (30.0)	M18 X 1
15	10	1.263 (32.1)	M22 X 1
23	36	1.705 (43.3)	M34 X 1

PRODUCT NOTES

1. Packaging: Packaging identification includes manufacturer's name and part number.

2. Material / Finish:

Insert: Aluminum Alloy / Electroless Nickel
 Hardware Stainless Steel / Passivated
 Internal Alignment Sleeves: Ceramic
 Shell / Shell Hardware: Aluminum Alloy / Olive Drab
 Cadmium over Electroless Nickel
 Screws, Washers, Alignment pins: Stainless Steel / NA

3. Tooling:

Termini Insertion Tool Part Number: 274-0058-000
 Termini Removal tool Part Number: 274-0058-001

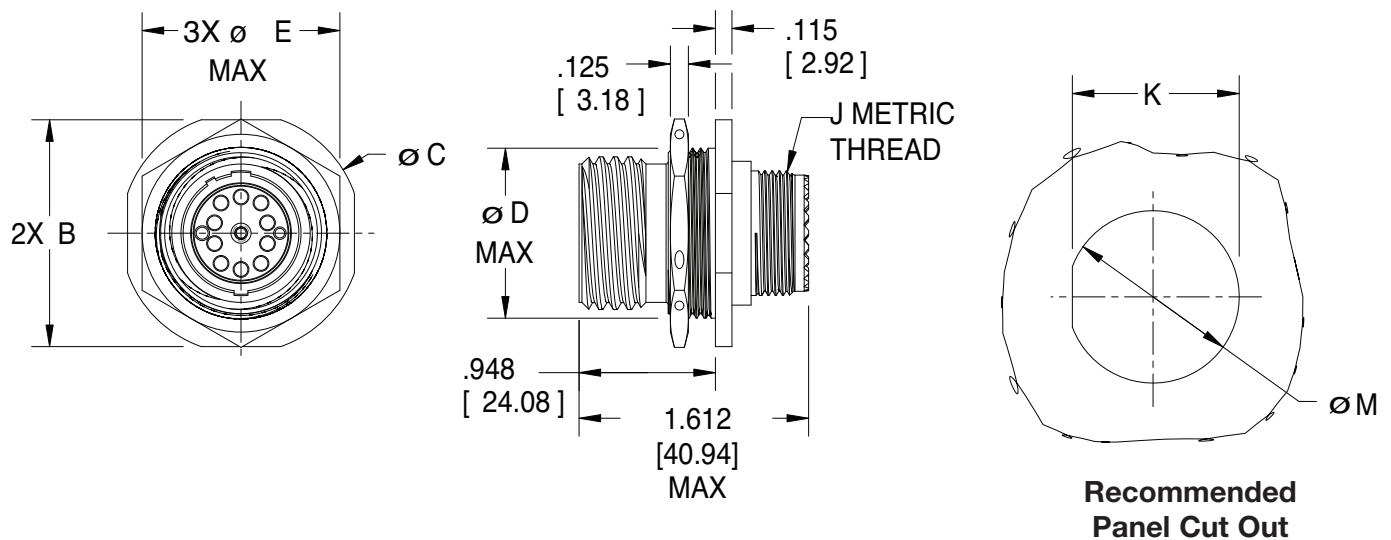
4. Insert: Front Alignment Insert Assembly may be added to the Plug Assembly or the Receptacle Assembly but not both. See Connector Assembly Matrix for Part Numbers.

5. Termini: Genderless design allows termini to be used in Plug and Receptacle configurations. See Page 54 for Product Details.

MIL-PRF-NGCON

Jam-Nut Mount Receptacle Connector (MIL-PRF-NGCON/3)

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Shell Size	Channels	B	C	D	E	K	M	Max Panel Thickness	J-Accessory Thread
11	2	1.264 (32.1)	1.358 (34.5)	.875 (22.2)	1.075 (27.3)	.848 (21.5)	.885 (22.5)	.188 (4.78)	M15 X 1
13	6	1.389 (35.3)	1.498 (38.1)	1.000 (25.4)	1.205 (30.6)	.973 (24.7)	1.010 (25.7)	.188 (4.78)	M18 X 1
15	10	1.577 (40.1)	1.671 (42.4)	1.188 (30.2)	1.392 (35.4)	1.160 (29.5)	1.198 (30.4)	.188 (4.78)	M22 X 1
23	36	2.004 (50.9)	2.098 (53.3)	1.625 (41.3)	1.812 (46.0)	1.593 (40.5)	1.630 (41.4)	.188 (4.78)	M34 X 1

PRODUCT NOTES

1. Packaging: Packaging identification includes manufacturer's name and part number.

2. Material / Finish:

Insert: Aluminum Alloy / Electroless Nickel
 Hardware Stainless Steel / Passivated
 Internal Alignment Sleeves: Ceramic
 Shell / Shell Hardware: Aluminum Alloy / Olive Drab
 Cadmium over Electroless Nickel
 Screws, Washers, Alignment pins: Stainless Steel / NA

3. Tooling:

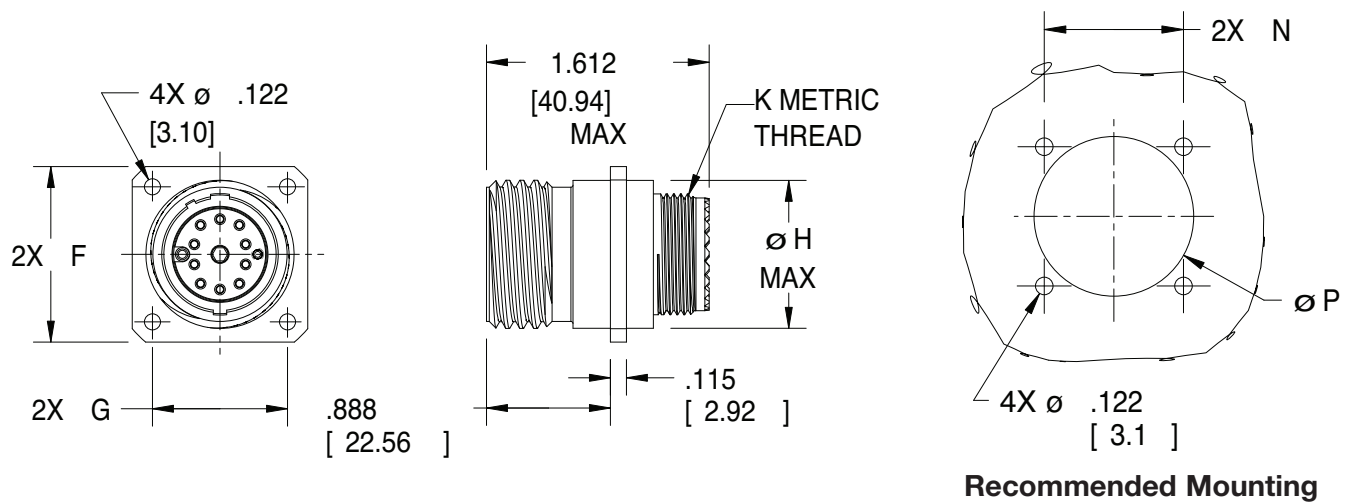
Termini Insertion Tool Part Number: 274-0058-000
 Termini Removal tool Part Number: 274-0058-001

4. Insert: Front Alignment Insert Assembly may be added to the Plug Assembly or the Receptacle Assembly but not both. See Connector Assembly Matrix for Part Numbers.

5. Termini: Genderless design allows termini to be used in Plug and Receptacle configurations. See Page 54 for Product Details.

Wall Mount Receptacle Connector (MIL-PRF-NGCON/1)

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Recommended Mounting

Shell Size	Channels	F	G	H	N	P	Max Panel Thickness	J-Accessory Thread
11	2	1.023 (26.0)	.750 (19.1)	.750 (19.1)	.750 (19.1)	.800 (20.3)	.188 (4.78)	M15 X 1
13	6	1.138 (28.9)	.843 (21.4)	.875 (22.2)	.843 (21.4)	.925 (23.5)	.188 (4.78)	M18 X 1
15	10	1.258 (31.9)	.968 (24.6)	1.062 (27.0)	.968 (24.6)	1.110 (28.2)	.188 (4.78)	M22 X 1
23	36	1.718 (43.6)	1.281 (32.5)	1.500 (38.1)	1.281 (32.5)	1.550 (39.4)	.188 (4.78)	M34 X 1

PRODUCT NOTES

1. Packaging: Packaging identification includes manufacturer's name and part number.

2. Material / Finish:

Insert: Aluminum Alloy / Electroless Nickel
 Hardware Stainless Steel / Passivated
 Internal Alignment Sleeves: Ceramic
 Shell / Shell Hardware: Aluminum Alloy / Olive Drab
 Cadmium over Electroless Nickel
 Screws, Washers, Alignment pins: Stainless Steel / NA

3. Tooling:

Termini Insertion Tool Part Number: 274-0058-000
 Termini Removal tool Part Number: 274-0058-001

4. Insert: Front Alignment Insert Assembly may be added to the Plug Assembly or the Receptacle Assembly but not both. See Connector Assembly Matrix for Part Numbers.

5. Termini: Genderless design allows termini to be used in Plug and Receptacle configurations. See Page 54 for Product Details.

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ITT Series

NGCN - NGCON Fiber Optic Connector System

Connector Type

- 1 - Receptacle, Wall Mount
- 2 - Plug
- 3 - Receptacle, Jam Nut Mount

Arrangement (Shell Size / Channels)

- B - Shell Size 11 / 2 Channels
- C - Shell Size 13 / 6 Channels
- D - Shell Size 15 / 10 Channels
- H - Shell Size 23 / 36 Channels

Insert Style

- P - Pin
- S - Socket (With Front Alignment Insert)

Keying Position

Key Configuration
1 through 9, A, B, C

Backshell Configuration

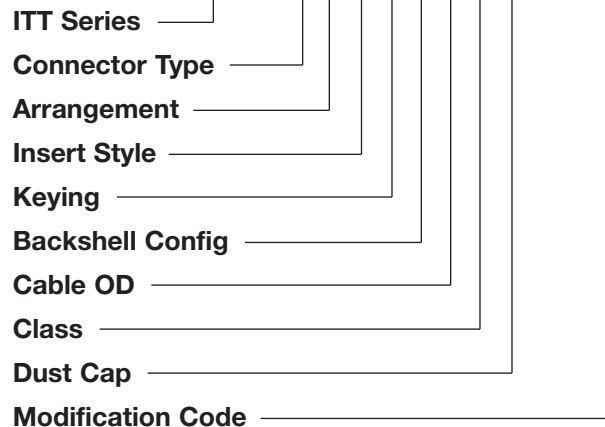
- B - Straight
- C - Environmental 45°
- D - 90°
- E - Straight, Light Duty
- F - EMI Retention Nut
- X - No Backshell

Backshell Cable OD

- 1 - .315 [8.00]
- 2 - .425 [10.80]
- 3 - .563 [14.30]
- 4 - .817 [20.75]
- F - .071/.094 [1.80/2.39]
- 0 - No Backshell

Descriptive Part Number

NGCN / 1 B S 1 B 1 B X - M001



Class

- F - Electroless nickel finish
- W - Olive drab over electroless nickel finish
- A - Anodize, Black finish
- S - Stainless Steel, Passivated

Dust Cap

- W - Connector Supplied with Dust Cap
- X - Without Dust Cap

Modification Code

Consult Factory for Modification Codes
(Omit for none)