Amphenol FSI

NGCON Fiber Optic Connector Series




The Next Generation Connector (NGCON) is designed and manufactured using proven technology and features from existing D38999 and M28876 connector standards. This innovative connector series includes genderless fiber optic termini and high density packaging.

Features & Benefits :

- Compliant with NGCON MIL-STD-64266 military standard
- Removable ASR to allow easy maintenance
- Ratcheting coupling nut to resist vibration
- Traverse sealing via O-ring on termini to eliminate troublesome rear grommet
- Replaceable retaining clip on contact ensures long service life
- Rear release contact requires no pulling on fiber
- D38999 accessory threads on rear and M28876 coupling threads
- Precision machined inserts with sub-alignment pins
- Full complement of tactical backshell
- Follows M28876 panel cutouts
- High Density arrangements

Applications :

- Avionics
- Naval shipboard/dockside communications
- Other military fiber optic interconnect applications

Featured Specs:

	Multimode	Single-mode
Ferrule (OD)	1.25mm	1.25mm
Fiber Type	50/125	9/125
Insertion Loss (dB typical)	0.25	0.25
Maximum Loss (dB maximum)	0.75	0.75
Return Loss (dB typical)	35	50
Return Loss (dB minimum)	30	60
Channel Servicing	Single	
Channel Repair	Single	
Cyclic Durability	500	

Product Shell Sizes & Channels :

Shell Size	Channels	Accessory Thread
11	2, 4	M15 X 1
13	6	M18 X 1
15	8, 10	M22 X 1
17	12	M25 X 1
23	18, 36	M34 X 1

Amphenol Fiber Systems International, Inc. | 1300 Central Expressway N, Suite 100 Allen, TX 75013
Phone: (214) 547-2400 | Email: sales@fibersystems.com | Website: www.fibersystems.com

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NGCON Fiber Optic Connector Series

NG01 - Receptacle, Flange Mount:

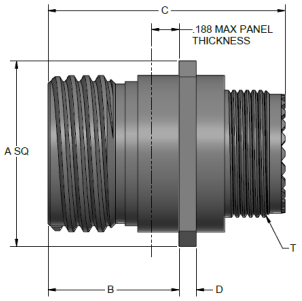
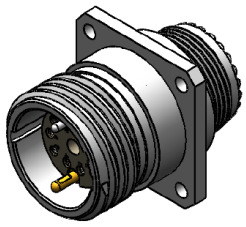


TABLE 1					
SHELL	A MAX	B MAX	C MAX	D MAX	T (THD)
11	1.040	0.900	1.662	0.125	M15 X 1.0
13	1.160				M18 X 1.0
15	1.280				M22 X 1.0
17	1.340				M25 X 1.0
23	1.740				M34 X 1.0



WITH ASR

TABLE 2				
SHELL SIZE	SHELL SIZE DESIGNATOR	INSERT ARRANGEMENT NUMBER	ASR INCLUDED	CONNECTOR KEYING POSITION
11	B	1 OR 2 / (2, 4)	YES	SEE TABLE 4
13	C	1 (6)		
15	D	1 OR 2 (8, 10)		
17	E	1 (12)		
23	H	1 OR 2 (36, 18)		

TABLE 4		
KEYING POSITION	ANGLE SHELL 13 THRU 23	ANGLE SHELL 11
1	30°	55°
2	55°	80°
3	80°	105°
4	105°	130°
5	130°	230°
6	155°	255°
7	205°	280°
8	230°	305°
9	255°	-
A	280°	-
B	305°	-
C	330°	-
U	NONE	-

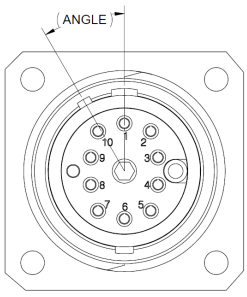


TABLE 4 KEYING ANGLE EXAMPLE
(VIEW W/ASR SHOWN)

NG01 - Part Number Scheme:

NG01 - X X X X

BASIC PIN

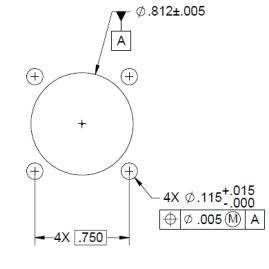
SHELL SIZE DESIGNATOR
B = SHELL 11
C = SHELL 13
D = SHELL 15
E = SHELL 17
H = SHELL 23
(TABLE 2, SHEET 2)

CLASS (MATERIAL DESIGNATOR)
A = ALUMINUM WITH CAD ELECTROLYTIC COMPATIBLE PLATING
B = STAINLESS STEEL, PASSIVATED
C = COMPOSITE WITH CAD ELECTROLYTIC COMPATIBLE PLATING
D = ALUMINUM WITH NON-CONDUCTIVE FINISH
E = COMPOSITE WITH NON-CONDUCTIVE FINISH
F = ALUMINUM WITH CAD OLIVE DRAB PLATING
T = ALUMINUM WITH Ni-PTFE PLATING

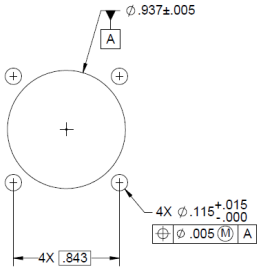
INSERT ARRANGEMENT NUMBER
SHELL 11
1 = 2 CH
2 = 4 CH
SHELL 13
1 = 6 CH
SHELL 15
1 = 8 CH
2 = 10 CH
SHELL 17
1 = 12 CH
SHELL 23
1 = 36 CH
2 = 18 CH
(TABLE 2, SHEET 2)

SHELL KEYING POSITION NUMBER
(TABLE 4, SHEET 2)

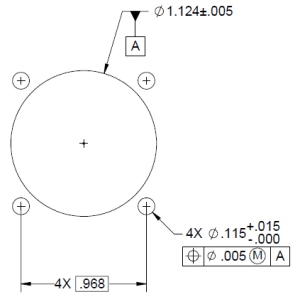
NG01 - Panel Mount Dimensions:



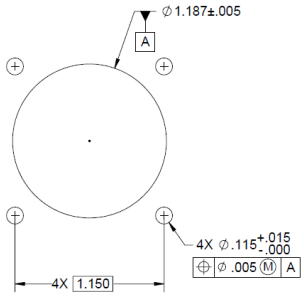
SHELL 11 PANEL MOUNTING DIMENSIONS



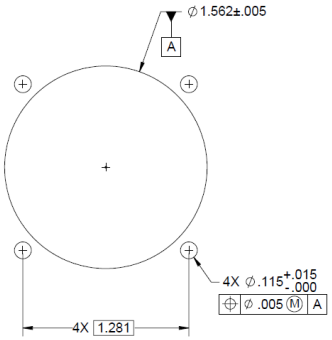
SHELL 13 PANEL MOUNTING DIMENSIONS



SHELL 15 PANEL MOUNTING DIMENSIONS



SHELL 17 PANEL MOUNTING DIMENSIONS



SHELL 23 PANEL MOUNTING DIMENSIONS

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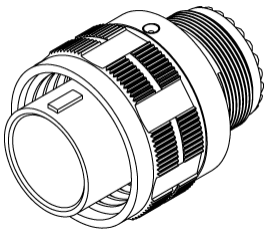
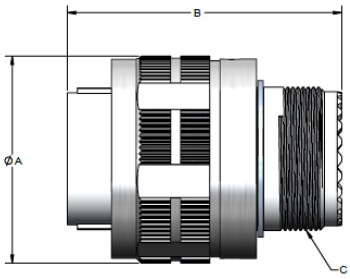
NG02 - PLUG - 3D Drawing/Rendering:





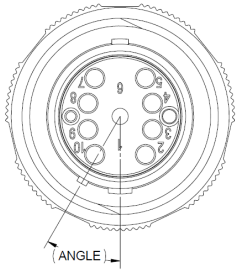


TABLE 2 KEYING ANGLE EXAMPLE

TABLE 1				
SHELL SIZE	SHELL SIZE DESIGNATOR	INSERT ARRANGEMENT NUMBER	ASR INCLUDED	CONNECTOR KEYING POSITION
11	B	1 OR 2 / (2, 4)	NO RECEPTACLES ONLY	SEE TABLE 2
13	C	1 (6)		
15	D	1 OR 2 (8, 10)		
17	E	1 (12)		
23	H	1 OR 2 (36, 18)		

TABLE 2		
KEYING POSITION	ANGLE SHELL 13 THRU 23	ANGLE SHELL 11
1	30°	55°
2	55°	80°
3	80°	105°
4	105°	130°
5	130°	230°
6	155°	255°
7	205°	280°
8	230°	305°
9	255°	-----
A	280°	-----
B	305°	-----
C	330°	-----
U	NONE	-----

TABLE 4			
SHELL	ØA MAX	B MAX	C (THD)
11	1.028	1.662	M15 X 1.0
13	1.141	1.662	M18 X 1.0
15	1.263	1.662	M22 X 1.0
17	1.387	1.662	M25 X 1.0
23	1.705	1.662	M34 X 1.0

NG02 - Part Number Scheme:

NG02 - X X X X X

BASIC PIN

SHELL SIZE DESIGNATOR
B = SHELL 11
C = SHELL 13
D = SHELL 15
E = SHELL 17
H = SHELL 23
(TABLE 1, SHEET 2)

CLASS (MATERIAL DESIGNATOR)
A = ALUMINUM WITH CAD ELECTROLYTIC COMPATIBLE PLATING
B = STAINLESS STEEL, PASSIVATED
C = COMPOSITE WITH CAD ELECTROLYTIC COMPATIBLE PLATING
D = ALUMINUM WITH NON-CONDUCTIVE FINISH
E = COMPOSITE WITH NON-CONDUCTIVE FINISH
F = ALUMINUM WITH CAD OLIVE DRAB PLATING
G = MARINE BRONZE
T = ALUMINUM WITH Ni-PTFE PLATING
L = STAINLESS STEEL WITH E-Ni PLATING

INSERT ARRANGEMENT NUMBER
SHELL 11
1 = 2 CH
2 = 4 CH
SHELL 13
1 = 6 CH
SHELL 15
1 = 8 CH
2 = 10 CH
SHELL 17
1 = 12 CH
SHELL 23
1 = 36 CH
2 = 18 CH
(TABLE 1, SHEET 2)

SHELL KEYING POSITION NUMBER
(TABLE 2, SHEET 2)

PART NUMBER EXAMPLE
NG02-DA11 DESCRIBES:
SHELL SIZE 15,
CLASS A
SHELL KEYING POSITION 1,
INSERT ARRANGEMENT 1

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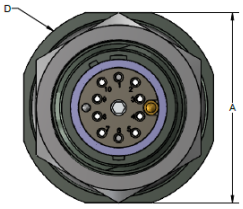
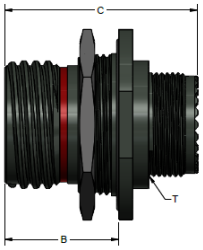
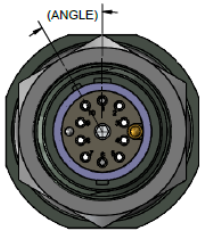
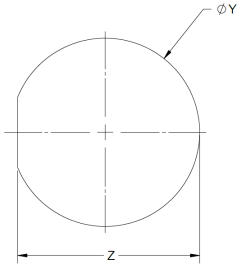
NG03 - Receptacle, Jamnut:







SEE TABLE 3



PANEL MOUNT DIMENSIONS

TABLE 1							
SHELL	A MAX	B MAX	C MAX	ØD MAX	T (THREAD)	Y MAX	Z MAX
11	1.274	0.958	1.662	1.368	M15X1.0	0.890	0.853
13	1.399	0.958	1.662	1.508	M18X1.0	1.015	0.978
15	1.587	0.958	1.662	1.681	M22X1.0	1.203	1.165
17	1.649	0.958	1.662	1.743	M25X1.0	1.265	1.228
23	2.014	0.958	1.662	1.510	M34X1.0	1.635	1.598

TABLE 2				
SHELL SIZE	SHELL SIZE DESIGNATOR	INSERT ARRANGEMENT NUMBER	ASR INCLUDED	CONNECTOR KEYING POSITION
11	B	1 OR 2 / (2, 4)	YES	SEE TABLE 3
13	C	1 (6)		
15	D	1 OR 2 / (8, 10)		
17	E	1 (12)		
23	H	1 OR 2 / (36, 18)		

TABLE 3		
KEYING POSITION	ANGLE SHELL 13 THRU 23	ANGLE SHELL 11
1	30°	55°
2	55°	80°
3	80°	105°
4	105°	130°
5	130°	230°
6	155°	256°
7	205°	280°
8	230°	305°
9	256°	-
A	280°	-
B	305°	-
C	330°	-
U	NONE	NONE

NG02 - Part Number Scheme:

NG03 - X X X X

BASIC PIN

SHELL SIZE DESIGNATION
B = SHELL 11
C = SHELL 13
D = SHELL 15
E = SHELL 17
H = SHELL 23
(TABLE 2)

CLASS (MATERIAL DESIGNATOR)
A = ALUMINUM WITH CAD ELECTROLYTIC COMPATIBLE PLATING
B = STAINLESS STEEL, PASSIVATED
C = COMPOSITE WITH CAD ELECTROLYTIC COMPATIBLE PLATING
D = ALUMINUM WITH NON-CONDUCTIVE FINISH
E = COMPOSIT WITH NON-CONDUCTIVE FINISH
F = ALUMINUM WITH CAD OLIVE DRAB PLATING
G = MARINE BRONZE
T = ALUMINUM WITH Ni-PTFE PLATING
L = STAINLESS STEEL WITH E-Ni PLATING

INSERT ARRANGEMENT NUMBER
SHELL 11
1 = 2 CH
2 = 4 CH
SHELL 13
1 = 6 CH
SHELL 15
1 = 8 CH
2 = 10 CH
SHELL 17
1 = 12 CH
SHELL 23
1 = 36 CH
2 = 18 CH
(TABLE 2)

SHELL KEYING POSITION NUMBER
(TABLE 3)

PART NUMBER EXAMPLE
NG03-DA11 DESCRIBES:
SHELL SIZE 15,
CLASS A
SHELL KEYING POSITION 1,
INSERT ARRANGEMENT 1

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Amphenol Fiber Systems International (AFSI) :

Amphenol Fiber Systems International (AFSI) designs, manufactures, markets and supports the broadest portfolio of reliable and innovative fiber optic interconnect solutions to withstand the harsh environments of military, aerospace, heavy industrial, broadcast and medical applications. Since inception in 1993, AFSI continues to advance its position as a global leader in harsh environment fiber optic interconnect.

AFSI has delivered millions of fiber optic solutions in more than 30 countries. Whenever there is a need for superior, cost-effective fiber optic systems to withstand the harshest of operating environments, you can rely on AFSI for engineering know-how, top-quality products and expert technical support.

Visit **www.fibersystems.com** for more information.

How to Order :

For more information on how to order or to obtain a price quote on NGCON Connector series, call toll free (U.S. only) at 800.472.4225, international calls please use 1.214.547.2400 or e-mail: info@fibersystems.com.

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