

STRAIN RELIEF CLAMP



Amphenol Strain Reliefs not only tidy-up the cable after termination but provide good strain relief at the termination area. It is a cost effective cable holding option when environmental protection is not a concern, and weight saving is a major consideration

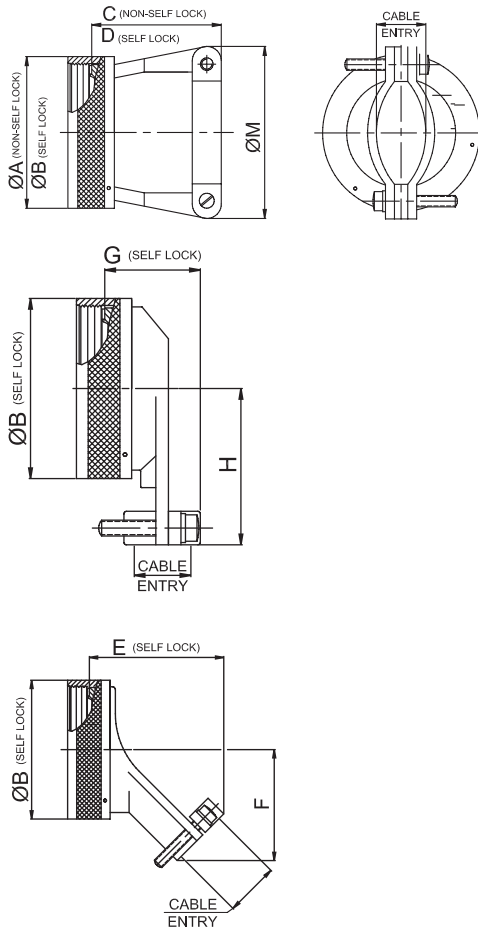
For Connector Group		Page No.
J	→	XI-1 - XI-2
K	→	XI-3 - XI-4
L	→	XI-5 - XI-6
M	→	XI-7 - XI-8
N	→	XI-9 - XI-10

Note: For Connector group Identification refer Table 1 - A, B, C, D ([Page 7-11](#)) and for Material / Plating Finish, Refer Table-2 ([Page 12](#))



Connector Group - J

Straight, 90°, 45°



Amphenol Part Number

BS1 X X J 99 99 9 X X

Series ———— BS1

Angle ———— X
S: straight
A: 90deg
B: 45deg

Coupling ———— J
R: spin
D: direct

Connector group ———— 99

Finish: see Table-2 ———— X

Constant: X ———— X

Length ———— 9
9 - for standard
Length in table / figure

Entry Size ———— 99
99 - for standard
Entry Size in table / figure

Shell size ———— X
See Table-A

MIL Part Number

M85049 / 99 S 9 X

MIL Series ———— M85049

Slash sheet ———— /
52: Straight
51: 90deg
43: 45deg

Finish: See Table-2 ———— 99

Dash Number: See Table-A ———— S

Coupling: ———— 9
S :Self lock
“-“ :Non self lock(for 45deg)
-1- : Non self lock(for straight/90deg)

NOTE: * For more cable entry and length options, contact factory

TABLE - A

AMPHENOL PART NUMBER DESIGNATOR	MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE SIZE	A DIA.(MAX)		B DIA.(MAX)		C (MAX)		D (MAX)		E (MAX)		F (MAX)	
			INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
08	08	8	0.62	15.67	0.89	22.48	0.63	16.00	0.73	18.54	1.32	33.53	0.77	19.61
10	10	10	0.73	18.64	1.01	25.65	0.74	18.80	0.85	21.59	1.36	34.65	0.80	20.40
12	12	7/12	0.86	21.79	1.14	28.83	0.86	21.84	0.98	24.89	1.44	36.53	0.87	22.00
14	14	12/14	0.98	24.99	1.26	32.00	0.86	21.84	0.98	24.89	1.48	37.59	0.93	23.57
16	16	19/16	1.11	28.24	1.39	35.18	0.99	25.15	1.10	27.94	1.59	40.28	0.99	25.17
18	18	27/18	1.22	30.94	1.51	38.35	1.24	31.50	1.35	34.29	1.70	43.28	1.11	28.19
20	20	37/20	1.35	34.16	1.64	41.53	1.36	34.54	1.48	37.59	1.75	44.40	1.17	29.77
22	22	22	1.47	37.29	1.76	44.70	1.49	37.85	1.60	40.64	1.79	45.52	1.24	31.37
24	24	24	1.59	40.46	1.89	47.88	1.61	40.89	1.73	43.94	1.84	46.63	1.30	32.94
28	28	28	1.97	50.01	2.14	54.23	1.76	44.70	1.88	47.75	1.96	49.81	1.54	39.19
32	32	32	2.22	56.36	2.40	60.83	1.95	49.53	2.13	54.10	2.05	52.04	1.67	42.37
36	36	36	2.47	62.71	2.64	66.93	2.33	59.18	2.44	61.98	2.09	53.16	1.79	45.54
40	40	40	2.72	69.06	2.89	73.28	2.51	63.75	2.63	66.80	2.09	53.19	1.92	48.72
44	44	44	2.97	75.41	3.14	79.63	2.89	73.41	3.00	76.20	2.36	59.94	2.13	54.15
48	48	48	3.22	81.76	3.39	85.98	3.26	82.80	3.40	86.36	2.45	62.18	2.26	57.33

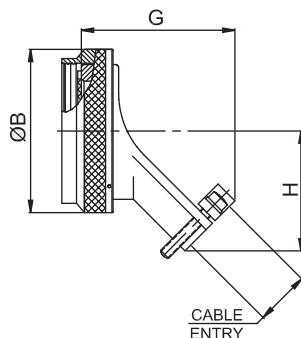
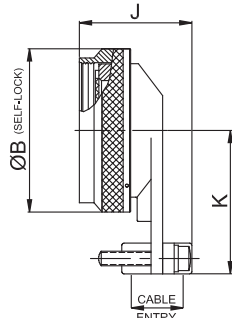
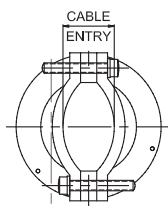
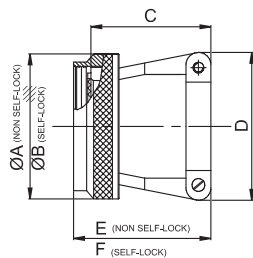
Table Continued

TABLE - A

AMPHENOL PART NUMBER DESIGNATOR	MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE SIZE	G (MAX)		H (MAX)		M (MAX)		CABLE ENTRY			
									MAX		MIN	
SHELL SIZE	DASH NO		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
08	08	8	0.93	23.62	0.75	18.95	0.78	19.86	0.20	5.18	0.13	3.18
10	10	10	1.02	25.91	0.81	20.45	0.86	21.89	0.29	7.26	0.19	4.75
12	12	7/12	1.21	30.73	0.87	22.02	1.00	25.48	0.42	10.57	0.29	7.39
14	14	12/14	1.27	32.26	0.93	23.62	1.06	26.95	0.48	12.09	0.35	8.92
16	16	19/16	1.42	36.07	0.99	25.25	1.33	33.88	0.63	15.90	0.50	12.73
18	18	27/18	1.53	38.86	1.17	29.74	1.47	37.24	0.71	17.93	0.52	13.16
20	20	37/20	1.65	41.91	1.23	31.34	1.57	39.93	0.83	21.11	0.58	14.76
22	22	22	1.78	45.21	1.30	32.92	1.69	42.88	0.96	24.28	0.64	16.36
24	24	24	1.90	48.26	1.36	34.49	1.79	45.47	1.08	27.46	0.71	17.93
28	28	28	2.20	55.88	1.57	39.93	2.04	51.69	1.19	30.15	0.75	19.05
32	32	32	2.27	57.66	1.80	45.64	2.39	60.60	1.25	31.75	0.88	22.23
36	36	36	2.39	60.71	1.92	48.82	2.50	63.40	1.38	34.93	0.94	23.83
40	40	40	2.52	64.01	2.05	51.99	2.57	65.18	1.50	38.10	0.94	23.83
44	44	44	2.77	70.36	2.30	58.32	2.86	72.64	1.75	44.45	1.19	30.18
48	48	48	2.89	73.41	2.42	61.49	3.34	84.94	1.88	47.63	1.31	33.32

Connector Group - K

Straight, 90°, 45°



Amphenol Part Number

BS1 X X K 99 99 9 X X

Series
Angle
S: straight
A: 90deg
B: 45deg
Coupling
R: spin
D: direct
Connector group

Finish: see Table-2
Constant: X
Length
9 - for standard
Length in table / figure
Entry Size
99 - for standard
Entry Size in table / figure
Shell size
See Table-A

MIL Part Number

M85049 / 99 S 9 X

MIL Series
Slash sheet
49-2: Straight
47 : 90deg
Finish:
See Table-2
Dash Number:
See Table-A
Coupling:
S :Self lock
"-" :Non self lock

NOTE: * For more cable entry and length options, contact factory

TABLE - A

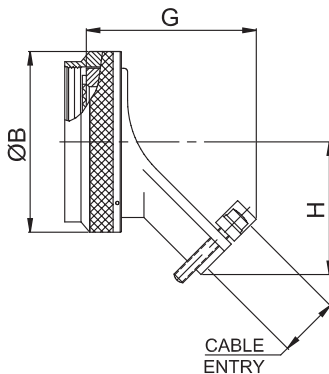
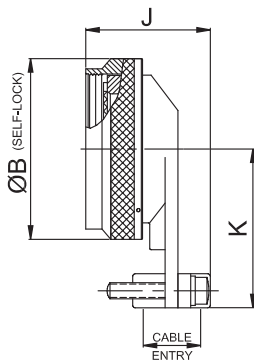
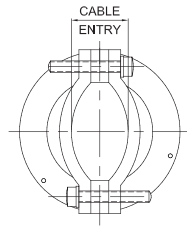
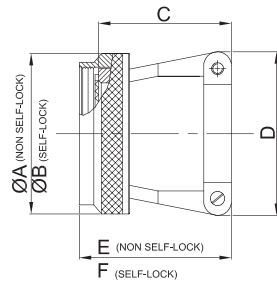
AMPHENOL PART NUMBER DESIGNATOR	MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE SIZE	A DIA.(MAX)		B DIA.(MAX)		C (MAX)		D (MAX)		E (MAX)		F (MAX)	
			INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
08	08	8	0.62	15.67	0.89	22.48	0.63	16.00	0.73	18.54	1.32	33.53	0.77	19.61
10	10	10	0.73	18.64	1.01	25.65	0.74	18.80	0.85	21.59	1.36	34.65	0.80	20.40
12	12	7/12	0.86	21.79	1.14	28.83	0.86	21.84	0.98	24.89	1.44	36.53	0.87	22.00
14	14	12/14	0.98	24.99	1.26	32.00	0.86	21.84	0.98	24.89	1.48	37.59	0.93	23.57
16	16	19/16	1.11	28.24	1.39	35.18	0.99	25.15	1.10	27.94	1.59	40.28	0.99	25.17
18	18	27/18	1.22	30.94	1.51	38.35	1.24	31.50	1.35	34.29	1.70	43.28	1.11	28.19
20	20	37/20	1.35	34.16	1.64	41.53	1.36	34.54	1.48	37.59	1.75	44.40	1.17	29.77
22	22	22	1.47	37.29	1.76	44.70	1.49	37.85	1.60	40.64	1.79	45.52	1.24	31.37
24	24	24	1.59	40.46	1.89	47.88	1.61	40.89	1.73	43.94	1.84	46.63	1.30	32.94
28	28	28	1.97	50.01	2.14	54.23	1.76	44.70	1.88	47.75	1.96	49.81	1.54	39.19
32	32	32	2.22	56.36	2.40	60.83	1.95	49.53	2.13	54.10	2.05	52.04	1.67	42.37
36	36	36	2.47	62.71	2.64	66.93	2.33	59.18	2.44	61.98	2.09	53.16	1.79	45.54
40	40	40	2.72	69.06	2.89	73.28	2.51	63.75	2.63	66.80	2.09	53.19	1.92	48.72
44	44	44	2.97	75.41	3.14	79.63	2.89	73.41	3.00	76.20	2.36	59.94	2.13	54.15
48	48	48	3.22	81.76	3.39	85.98	3.26	82.80	3.40	86.36	2.45	62.18	2.26	57.33

Table Continued

TABLE - A												
AMPHENOL PART NUMBER DESIGNATOR	MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE SIZE	G (MAX)		H (MAX)		M (MAX)		CABLE ENTRY			
SHELL SIZE	DASH NO		INCH	MM	INCH	MM	INCH	MM	MAX		MIN	
									INCH	MM	INCH	MM
08	08	8	0.93	23.62	0.75	18.95	0.78	19.86	0.20	5.18	0.13	3.18
10	10	10	1.02	25.91	0.81	20.45	0.86	21.89	0.29	7.26	0.19	4.75
12	12	7/12	1.21	30.73	0.87	22.02	1.00	25.48	0.42	10.57	0.29	7.39
14	14	12/14	1.27	32.26	0.93	23.62	1.06	26.95	0.48	12.09	0.35	8.92
16	16	19/16	1.42	36.07	0.99	25.25	1.33	33.88	0.63	15.90	0.50	12.73
18	18	27/18	1.53	38.86	1.17	29.74	1.47	37.24	0.71	17.93	0.52	13.16
20	20	37/20	1.65	41.91	1.23	31.34	1.57	39.93	0.83	21.11	0.58	14.76
22	22	22	1.78	45.21	1.30	32.92	1.69	42.88	0.96	24.28	0.64	16.36
24	24	24	1.90	48.26	1.36	34.49	1.79	45.47	1.08	27.46	0.71	17.93
28	28	28	2.20	55.88	1.57	39.93	2.04	51.69	1.19	30.15	0.75	19.05
32	32	32	2.27	57.66	1.80	45.64	2.39	60.60	1.25	31.75	0.88	22.23
36	36	36	2.39	60.71	1.92	48.82	2.50	63.40	1.38	34.93	0.94	23.83
40	40	40	2.52	64.01	2.05	51.99	2.57	65.18	1.50	38.10	0.94	23.83
44	44	44	2.77	70.36	2.30	58.32	2.86	72.64	1.75	44.45	1.19	30.18
48	48	48	2.89	73.41	2.42	61.49	3.34	84.94	1.88	47.63	1.31	33.32

Connector Group - L

Straight, 90°, 45°



Amphenol Part Number

BS1 X X L 99 99 9 X X

Series

Angle

S: straight
A: 90deg
B: 45deg

Coupling

R: spin
D: direct

Connector group

Finish: see Table-2

Constant: X

Length
9 - for standard
Length in table / figure

Entry Size
99 - for standard
Entry Size in table / figure

Shell size
See Table-A

MIL Part Number

M85049 / 99 S 9 X

MIL Series

Slash sheet
38 : Straight
39 : 90deg

Finish:
See Table-2

Shell size:
See Table-A

Coupling:
S :Self lock
" " :Non self lock

NOTE: * For more cable entry and length options, contact factory

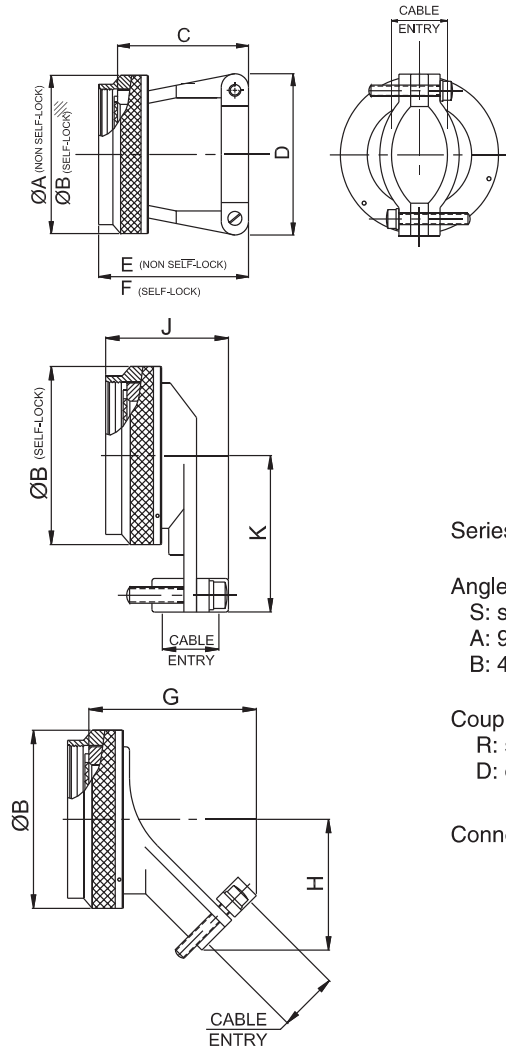
TABLE - A														
AMPHENOL PART NUMBER DESIGNATOR	MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE/CODE (REF.)	A DIA. (MAX)		B DIA. (MAX)		C (MAX)		D (MAX)		E (MAX)		F (MAX)	
SHELL SIZE	CONNECTOR SHELL SIZE		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
08	09	09 / A	0.75	19.05	0.86	21.82	0.91	23.11	0.85	21.59	1.10	27.94	1.21	30.73
10	11	11 / B	0.85	21.59	0.98	24.99	0.91	23.11	0.90	22.86	1.10	27.94	1.21	30.73
12	13	13 / C	1.00	25.40	1.16	29.36	1.01	25.65	1.10	27.94	1.20	30.48	1.31	33.27
14	15	15 / D	1.10	27.94	1.28	32.54	1.06	26.92	1.15	29.21	1.25	31.75	1.35	34.29
16	17	17 / E	1.25	31.75	1.41	35.71	1.16	29.46	1.30	33.02	1.36	34.44	1.45	36.83
18	19	19 / F	1.40	35.56	1.52	38.51	1.41	35.81	1.50	38.10	1.60	40.64	1.71	43.43
20	21	21 / G	1.50	38.10	1.64	41.68	1.51	38.35	1.60	40.64	1.70	43.21	1.81	45.97
22	23	23 / H	1.65	41.91	1.77	44.86	1.66	42.16	1.70	43.18	1.85	46.99	1.95	49.53
24	25	25 / J	1.75	44.45	1.89	48.03	1.76	44.70	1.80	45.72	1.95	49.56	2.05	52.07

Table Continued

TABLE - A														
AMPHENOL PART NUMBER DESIGNATOR	MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE/CODE (REF.)	G (MAX)		H (MAX)		J (MAX)		K (MAX)		CABLE ENTRY			
SHELL SIZE	CONNECTOR SHELL SIZE		INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN		MAX	
											INCH	MM	INCH	MM
08	09	09 / A	1.32	33.53	0.77	19.61	1.31	33.27	1.00	25.40	0.10	2.49	0.23	5.94
10	11	11 / B	1.36	34.65	0.80	20.40	1.31	33.27	1.10	27.94	0.15	3.89	0.23	5.94
12	13	13 / C	1.44	36.53	0.87	22.00	1.51	38.35	1.10	27.94	0.19	4.83	0.33	8.33
14	15	15 / D	1.48	37.59	0.93	23.57	1.55	39.37	1.25	31.75	0.26	6.60	0.46	11.61
16	17	17 / E	1.59	40.28	0.99	25.17	1.71	43.43	1.30	33.02	0.28	7.19	0.61	15.60
18	19	19 / F	1.70	43.28	1.11	28.19	1.81	45.97	1.35	34.29	0.33	8.26	0.63	16.10
20	21	21 / G	1.75	44.40	1.17	29.77	1.95	49.53	1.60	40.64	0.34	8.71	0.70	17.73
22	23	23 / H	1.79	45.52	1.24	31.37	2.10	53.34	1.75	44.45	0.38	9.68	0.82	20.90
24	25	25 / J	1.84	46.63	1.30	32.94	2.21	56.13	1.85	46.99	0.42	10.62	0.85	21.67

Connector Group - M

Straight, 90°, 45°



Amphenol Part Number

BS1 X X M 99 99 9 X X

Series — BS1
Angle — X
S: straight
A: 90deg
B: 45deg
Coupling — X
R: spin
D: direct
Connector group — M

Finish: see Table-2
Constant: X
Length — 99
Length in table / figure
Entry Size — 9
Entry Size in table / figure
Shell size — See Table-A

NOTE: * For more cable entry and length options, contact factory

TABLE - A

AMPHENOL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE	A DIA. (MAX)		B DIA. (MAX)		C (MAX)		D (MAX)		E (MAX)		F (MAX)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
08	8	0.75	19.05	0.86	21.82	0.91	23.11	0.85	21.59	1.10	27.94	1.15	29.21
10	10	0.85	21.59	0.98	24.99	0.91	23.11	0.90	22.86	1.10	27.94	1.15	29.21
12	12	1.00	25.40	1.16	29.36	1.01	25.65	1.10	27.94	1.20	30.48	1.25	31.75
14	14	1.10	27.94	1.28	32.54	1.06	26.92	1.15	29.21	1.25	31.75	1.30	33.02
16	16	1.25	31.75	1.41	35.71	1.16	29.46	1.30	33.02	1.36	34.44	1.40	35.56
18	18	1.40	35.56	1.52	38.51	1.41	35.81	1.50	38.10	1.60	40.64	1.65	41.91
20	20	1.50	38.10	1.64	41.68	1.51	38.35	1.60	40.64	1.70	43.21	1.75	44.45
22	22	1.65	41.91	1.77	44.86	1.66	42.16	1.70	43.18	1.85	46.99	1.90	48.26
24	24	1.75	44.45	1.89	48.03	1.76	44.70	1.80	45.72	1.95	49.56	2.00	50.80

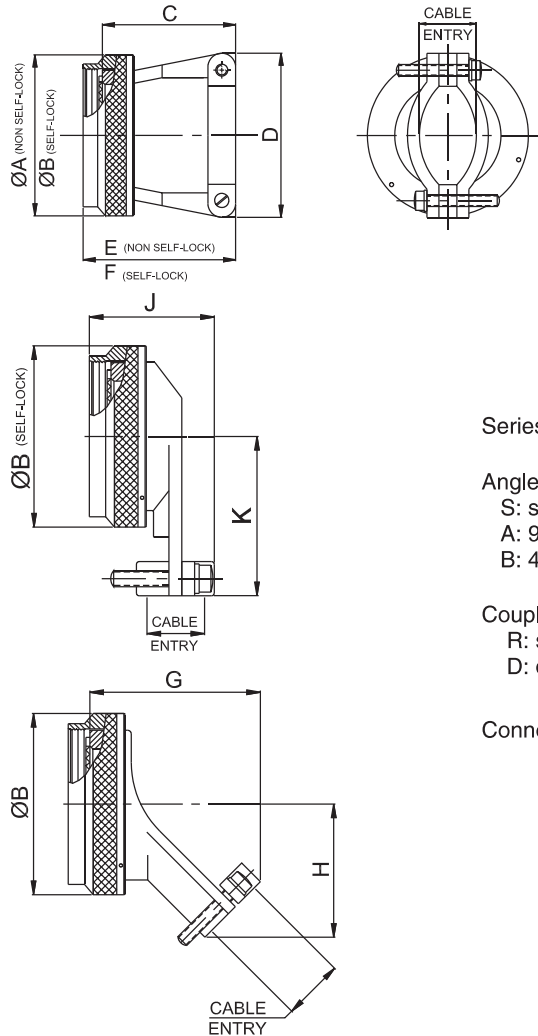
Table Continued

TABLE - A

AMPHENOL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE	G (MAX)		H (MAX)		J (MAX)		K (MAX)		CABLE ENTRY			
										MIN		MAX	
		NCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
08	8	1.32	33.53	0.77	19.61	1.38	35.05	1.00	25.40	0.10	2.49	0.23	5.94
10	10	1.36	34.65	0.80	20.40	1.38	35.05	1.10	27.94	0.15	3.89	0.23	5.94
12	12	1.44	36.53	0.87	22.00	1.46	37.08	1.10	27.94	0.19	4.83	0.33	8.33
14	14	1.48	37.59	0.93	23.57	1.63	41.40	1.25	31.75	0.26	6.60	0.46	11.61
16	16	1.59	40.28	0.99	25.17	1.80	45.72	1.30	33.02	0.28	7.19	0.61	15.60
18	18	1.70	43.28	1.11	28.19	1.82	46.23	1.35	34.29	0.33	8.26	0.63	16.10
20	20	1.75	44.40	1.17	29.77	1.90	48.26	1.60	40.64	0.34	8.71	0.70	17.73
22	22	1.79	45.52	1.24	31.37	2.04	51.82	1.75	44.45	0.38	9.68	0.82	20.90
24	24	1.84	46.63	1.30	32.94	2.15	54.61	1.85	46.99	0.42	10.62	0.85	21.67

Connector Group - N

Straight, 90°, 45°



Amphenol Part Number

BS1 X X N 99 99 9 X X

Series ——— BS1

Angle ——— X
S: straight
A: 90deg
B: 45deg

Coupling ——— X
R: spin
D: direct

Connector group ——— N

Finish: see Table-2

Constant: X

Length
9 - for standard
Length in table / figure

Entry Size
99 - for standard
Entry Size in table / figure

Shell size
See Table-A

NOTE: * For more cable entry and length options, contact factory

TABLE - A															
AMPHENOL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE	A DIA. (MAX)		B DIA. (MAX)		C (MAX)		D (MAX)		E (MAX)		F (MAX)		G (MAX)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
08	8	0.75	19.05	0.86	21.82	0.91	23.11	0.85	21.59	1.10	27.94	1.15	29.21	1.32	33.53
10	10	0.85	21.59	0.98	24.99	0.91	23.11	0.90	22.86	1.10	27.94	1.15	29.21	1.36	34.65
12	12	1.00	25.40	1.16	29.36	1.01	25.65	1.10	27.94	1.20	30.48	1.25	31.75	1.44	36.53
14	14	1.10	27.94	1.28	32.54	1.06	26.92	1.15	29.21	1.25	31.75	1.30	33.02	1.48	37.59
16	16	1.25	31.75	1.41	35.71	1.16	29.46	1.30	33.02	1.36	34.44	1.40	35.56	1.59	40.28
18	18	1.40	35.56	1.52	38.51	1.41	35.81	1.50	38.10	1.60	40.64	1.65	41.91	1.70	43.28
20	20	1.50	38.10	1.64	41.68	1.51	38.35	1.60	40.64	1.70	43.21	1.75	44.45	1.75	44.40
22	22	1.65	41.91	1.77	44.86	1.66	42.16	1.70	43.18	1.85	46.99	1.90	48.26	1.79	45.52
24	24	1.75	44.45	1.89	48.03	1.76	44.70	1.80	45.72	1.95	49.56	2.00	50.80	1.84	46.63

Table Continued

TABLE - A											
AMPHENOL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE	H (MAX)		J (MAX)		K (MAX)		CABLE ENTRY			
SHELL SIZE								MIN		MAX	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
08	8	0.77	19.61	1.38	35.05	1.00	25.40	0.10	2.49	0.23	5.94
10	10	0.80	20.40	1.38	35.05	1.10	27.94	0.15	3.89	0.23	5.94
12	12	0.87	22.00	1.46	37.08	1.10	27.94	0.19	4.83	0.33	8.33
14	14	0.93	23.57	1.63	41.40	1.25	31.75	0.26	6.60	0.46	11.61
16	16	0.99	25.17	1.80	45.72	1.30	33.02	0.28	7.19	0.61	15.60
18	18	1.11	28.19	1.82	46.23	1.35	34.29	0.33	8.26	0.63	16.10
20	20	1.17	29.77	1.90	48.26	1.60	40.64	0.34	8.71	0.70	17.73
22	22	1.24	31.37	2.04	51.82	1.75	44.45	0.38	9.68	0.82	20.90
24	24	1.30	32.94	2.15	54.61	1.85	46.99	0.42	10.62	0.85	21.67