

SERIES 253-020 AS81703 Series 3 Type Connectors



253-020-09 Rack-and-panel plug Standard-density contact arrangements

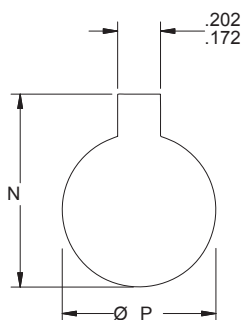


HOW TO ORDER							
Sample Part No.	253-020	-	09	ME	19-7	P	N
Basic Part Number	AS81703 Series 3 type connector						
Rear Option	- = Accessory threads B = Band porch (consult factory)						
Connector Style	09 = Rack & panel plug AS34461 type (MS3446)						
Material / Finish	C = Al Alloy/Black Anodize ME = Al Alloy/Electroless Nickel MT = Al Alloy/Nickel-PTFE NF = Al Alloy/Cad O.D. Over Electroless Nickel ZR = Al Alloy/Zinc-Nickel Black						
Shell Size-Insert Arrangement	See Table II						
Contact Styles	P = Pin insert S = Socket insert A = Pin insert less contacts B = Socket insert less contacts						
Insert Clocking Positions	N, W, X, Y, B, C (See Table III pg. 2)						

ADAPTER CODE A

"A" adapter code accessories fit AS81703 Series 3 (imperial thread) connectors

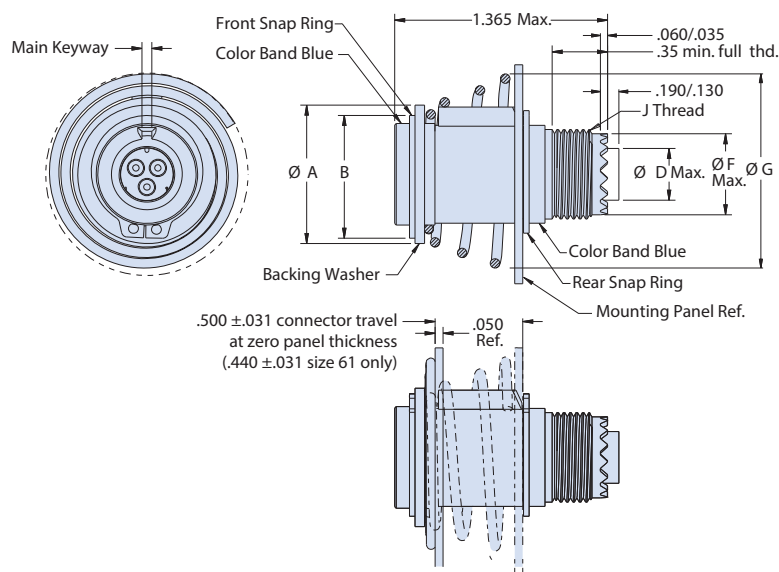
PANEL CUTOUT DIMENSIONS



PANEL CUTOUT DETAIL

Shell Size	Ø P		N	
	In.	mm	In.	mm
3	.671	17.0	.843	21.4
7	.812	20.6	.984	25.0
12	.953	24.2	1.109	28.2
19	1.062	27.0	1.234	31.3
27	1.203	30.6	1.375	34.9
37	1.375	34.9	1.531	38.9
61	1.687	42.8	1.859	47.2

-09 RACK-AND-PANEL PLUG DIMENSIONS



Shell Size	Ø A		Ø B Max.		Ø D Max.		Ø F Max.		Ø G Max.		J Thd.	Spring force when mated (lbs.-In.)
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm		
3	.891 .869	22.6 22.1	.800	20.3	.351	8.9	.509	12.9	1.225	31.1	¼-24 UNEF-2A	16 – 20
7	1.172 1.150	29.8 29.2	.990	25.1	.531	13.5	.687	17.4	1.356	34.4	⅜-20 UNEF-2A	16 – 20
12	1.263 1.241	32.1 31.5	1.190	30.2	.665	16.9	.812	20.6	1.575	40.0	⅞-20 UNEF-2A	30 – 35
19	1.391 1.369	35.3 34.8	1.320	33.5	.790	20.1	.937	23.8	1.715	43.6	1-20 UNEF-2A	40 – 50
27	1.529 1.507	38.8 38.3	1.475	37.5	.869	22.1	.992	25.2	1.860	47.2	1 ⅛-18 UNEF-2A	43 – 50
37	1.816 1.794	46.1 45.6	1.655	42.0	.994	25.2	1.117	28.4	2.120	53.8	1 ¾-18 UNEF-2A	45 – 53
61	2.150 2.118	54.6 53.8	2.025	51.4	1.280	32.5	1.427	36.2	2.850	72.4	1 ½-18 UNEF-2A	75 – 80

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TABLE I - MATERIAL AND FINISH			
Code	Mil Class	Material	Finish
TZ	-	Aluminum Alloy	Tin-Zinc over Nickel
MN	AA		MegaNickel
C	-		Black Anodize
ME	E		Electroless Nickel
NF	L		Cad O.D. over Electroless Nickel
MT	-		Nickel-PTFE
ZR	-		Zinc-Nickel/Black (Tri-Valent CR)

TABLE II: CONTACT ARRANGEMENTS			
Contact Arrangement	Contact Size & Quantity		
	#20	#16	#12
3-50	3		
7-50	7		
12-6	6		
12-50	12		
19-4			12
19-7			7
19-12		12	
19-50	19		
27-2		14	
27-3	14	2	
27-5		19	
27-8		6	4
27-11	12		
27-50	27		
37-2		24	
37-3			12
37-50	37		
61-42	29	4	8
61-50	61		

INSERT ROTATION AND INSERT CLOCKING ROTATION	
Master Keyway Pin insert rotated clockwise, Socket insert rotated counter-clockwise, relative to master key / keyway.	AS81703 Series 3 type connectors feature locksmith key/keyways. Plug connector keyways and receptacle connector keys are fixed for all sizes and contact arrangements. Alternate Insert Clocking is specified in the part number. Pin inserts are rotated clockwise, Socket inserts rotated counter-clockwise relative to the master key/keyway, to the positions indicated in the table below.

TABLE III: CLOCKING POSITIONS						
Contact Arrangement	Alternate Insert Clocking Positions					
	N	W	X	Y	B	C
3-50	0°			75°		
7-50	0°				150°	
12-6	0°	25°	45°	80°	150°	220°
12-50	0°	15°	50°	75°	150°	225°
19-4	0°			22° 30'	135°	247° 30'
19-7	0°			75°	150°	225°
19-12	0°	25°	50°	75°	150°	225°
19-50	0°			75°	150°	225°
27-2	0°	25°	50°	75°	150°	225°
27-3	0°	25°	50°	75°	150°	225°
27-5	0°			75°	150°	225°
27-8	0°	25°	50°	75°	150°	225°
27-11	0°	25°	50°	75°	150°	225°
27-50	0°	25°	50°	75°	150°	225°
37-2	0°	25°	145°	227° 30'		
37-3	0°	20°	70°			
37-50	0°	25°	50°	75°	150°	225°
61-42	0°		67° 30'			
61-50	0°			75°	150°	225°