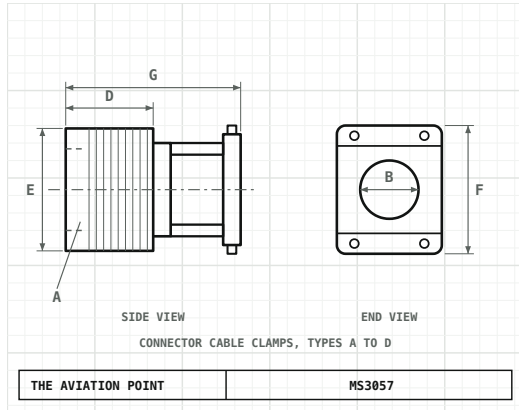
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MS3057 — connector cable clamps, types A to D

MS3057: cable clamps for AN-type circular connectors: type A strain relief, type B grounding cable seal, type C strain-relief cable seal and type D heavy-duty high-shock clamp, with dimensions by dash number.



Engineering drawing · dimensions in inches

Specification

Item	Value
Type	Cable clamp, electrical connector
Material	Type A: aluminum alloy, QQ-A-591 alloy no. 13. Types B and C: body aluminum alloy (QQ-A-225/5 temper T4, QQ-A-601 or QQ-A-591, alloy no. 13, 218, 380 or SC114A), sleeve aluminum (AMS4025 or QQ-A-225), gland rubber AMS3209 (durometer A 70 ±5), retaining ring brass SAE 70, hard temper; type C clamping bars aluminum QQ-A-250/8 temper H32. Type D: body and saddle aluminum alloy QQ-A-591 (comp. 13, 380 or A380), clamp screws AISI 300 series stainless steel.
Finish	Type A per MIL-C-5015. Types B and C: body, screws and washers cadmium plate QQ-P-416 type II class 3, dull olive drab, electrically conductive; sleeve per MIL-C-5541. Type D by finish code.
Status	Inactive for design after 1 July 1982; the standard directs MIL-C-85049/1, /2, /41 and /42 and states its cancellation after 1 July 1984. Check the current issue before design use.

Dimensions by size

Dimension, in	-3A	-4A	-6A	-8A	-10A	-12A	-16A	-20A	-24A	-28A	-32A	-40A
A — A thread	.500-28 UNEF-2B	.625-24 UNEF-2B	.750-20 UNEF-2B	.875-20 UNEF-2B	1.000-20 UNEF-2B	1.188-18 UNEF-2B	1.438-18 UNEF-2B	1.750-18 UNS-2B	2.000-18 UNS-2B	2.250-16 UN-2B	2.500-16 UN-2B	3.000-16 UN-2B
B — B, max	.250	.312	.438	.562	.625	.750	.938	1.250	1.375	1.625	1.875	2.375
C — C	.047	.062	.078	.109	.125	.156	.188	.250	.297	.328	.375	.453
D — D	.406	.406	.406	.406	.406	.406	.406	.469	.531	.531	.594	.656
E — E dia, ±.031	.688	.812	.969	1.094	1.188	1.375	1.656	2.031	2.219	2.500	2.781	3.281
F — F, ±.031	.812	.875	1.062	1.156	1.250	1.469	1.688	2.031	2.281	2.688	2.938	3.500
G — G, ±.031	.812	.812	.875	.938	.938	.938	1.031	1.094	1.156	1.688	1.750	1.750
Shell size (ref.)	8S and 10S	10SL, 12S and 12	14S and 14	16S and 16	18	20 and 22	24 and 28	32	36	40	44	48
Bushing (ref.)	MS3420-3	MS3420-4	MS3420-6	MS3420-8	MS3420-10	MS3420-12	MS3420-16	MS3420-20	MS3420-24	MS3420-28	MS3420-32	MS3420-40

Type A, dimensions in inches; letters as on the standard's drawing. Types B, C and D follow below.

Part numbers

8S and 10S 3 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-3A	A	—	MS3420-3
MS3057-3B	B	—	MS3420-3A
MS3057-3C	C	—	MS3420-3A

10SL, 12S and 12 3 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-4A	A	—	MS3420-4
MS3057-4B	B	—	MS3420-4A
MS3057-4C	C	—	MS3420-4A

14S and 14 3 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-6A	A	—	MS3420-6
MS3057-6B	B	—	MS3420-6A
MS3057-6C	C	—	MS3420-6A

16S and 16 3 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-8A	A	—	MS3420-8
MS3057-8B	B	—	MS3420-8A
MS3057-8C	C	—	MS3420-8A

18 3 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-10A	A	—	MS3420-10
MS3057-10B	B	—	MS3420-10A
MS3057-10C	C	—	MS3420-10A

20 and 22 3 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-12A	A	—	MS3420-12
MS3057-12B	B	—	MS3420-12A
MS3057-12C	C	—	MS3420-12A

24 and 28 3 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-16A	A	—	MS3420-16
MS3057-16B	B	—	MS3420-16A
MS3057-16C	C	—	MS3420-16A

32 3 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-20A	A	—	MS3420-20
MS3057-20B	B	—	MS3420-20A
MS3057-20C	C	—	MS3420-20A

36 3 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-24A	A	—	MS3420-24
MS3057-24B	B	—	MS3420-24A
MS3057-24C	C	—	MS3420-24A

40 3 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-28A	A	—	MS3420-28
MS3057-28B	B	—	MS3420-28A
MS3057-28C	C	—	MS3420-28A

44 3 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-32A	A	—	MS3420-32
MS3057-32B	B	—	MS3420-32A
MS3057-32C	C	—	MS3420-32A

48 2 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-40A	A	—	MS3420-40
MS3057-40B	B	—	MS3420-40A

4D 5 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-4DA	D	A	—
MS3057-4DC	D	C	—
MS3057-4DN	D	N	—

6D 5 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-6DA	D	A	—
MS3057-6DC	D	C	—
MS3057-6DN	D	N	—

8D 5 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-8DA	D	A	—
MS3057-8DC	D	C	—
MS3057-8DN	D	N	—

10D 5 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-10DA	D	A	—
MS3057-10DC	D	C	—
MS3057-10DN	D	N	—

12D 5 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-12DA	D	A	—
MS3057-12DC	D	C	—
MS3057-12DN	D	N	—

16D 5 part numbers

Part no.	Type	Finish code	Bushing (ref.)
MS3057-16DA	D	A	—
MS3057-16DC	D	C	—
MS3057-16DN	D	N	—

Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.

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Showing 53 of 85 rows. Complete table: theaviationpoint.com/parts/electrical/ms3057/

How to read the part number

Part	Meaning
Format	MS3057-<dash><finish>
A	Finish: Cadmium plate, QQ-P-416 type II class 3, over nickel; olive drab
C	Finish: Cadmium plate, QQ-P-416 type II class 3; olive drab
N	Finish: Electroless nickel, MIL-C-26074 class 3 or 4, grade B
D	Finish: Nonmagnetic CRES (QQ-S-763, 300 series): cadmium plate, QQ-P-416 type II class 3, black
S	Finish: Nonmagnetic CRES (QQ-S-763, 300 series): passivated
Example	MS3057-16DA — Type D clamp, dash 16D, finish A (cadmium plate over nickel, olive drab)

Type B, cable seal, grounding: dimensions

Dash	Shell size (ref.)	A +.031 −.016	C, max	D dia (gland) +.000 −.020	F dia +.020 −.000	H dia +.000 −.020	K, max	L, min	M ±.031	N	P ±2°	R, min
-3B	8S and 10S	.188	.812	.389	.231	.441	1.031	.156	.473	.254	20°	.531
-4B	10SL, 12S and 12	.188	.937	.510	.315	.560	1.031	.156	.473	.254	20°	.531
-6B	14S and 14	.188	1.062	.627	.440	.676	1.031	.156	.473	.254	30°	.531
-8B	16S and 16	.188	1.188	.744	.515	.800	1.031	.156	.473	.254	30°	.531
-10B	18	.188	1.312	.870	.614	.926	1.094	.156	.537	.281	30°	.531
-12B	20 and 22	.250	1.562	1.037	.738	1.107	1.219	.156	.625	.320	30°	.531
-16B	24 and 28	.250	1.750	1.286	.926	1.357	1.219	.156	.662	.344	30°	.531
-20B	32	.312	2.250	1.590	1.200	1.670	1.344	.156	.662	.406	35°	.562
-24B	36	.312	2.375	1.844	1.363	1.920	1.547	.156	.940	.406	35°	.781
-28B	40	.312	2.625	2.083	1.611	2.162	1.547	.156	.940	.406	35°	.781
-32B	44	.375	2.812	2.332	1.865	2.412	1.734	.188	1.047	.500	35°	.781
-40B	48	.375	3.312	2.832	2.365	2.912	1.781	.188	1.047	.500	35°	.781

Showing 1 of 5 further tables. Complete table: theaviationpoint.com/parts/electrical/ms3057/

Notes

- Types A, B and C: dimensions in inches; unless otherwise specified, tolerances ±.016 and angles ±2°. Threads per MIL-S-7742.
- The clamp mates with the connector shell size listed (reference). Types A, B and C carry no finish code; type D adds the finish code after the dash number.
- MS3057-3A to -40A are interchangeable with AN3057-3A to -40A, and MS3057-3B to -40B with AN3057-3B to -40B.
- Type A bushings are for reference and are not supplied with the clamp. For additional close-down of B: one bushing for MS3057-3A to -12A (MS3420-3 to -12); two for -16A to -24A (MS3057-16A takes one MS3420-16 and one MS3420-12); three for -28A to -40A (MS3057-40A takes one MS3420-40, one MS3420-32 and one MS3420-28).
- Types B and C: for additional close-down of Z, bushings MS3420-3A to MS3420-40A may be used; diameter Z is free of obstructions. Lubricant VV-P-236 on the threads and sleeve surfaces; retaining ring bonded in the rubber gland.
- Type D: cables do not pull out under the tabulated loads and slippage does not exceed .125. Relative magnetic permeability below 2.0 (MIL-I-17214); vibration per MIL-STD-167-1 and MIL-STD-202 method 204, condition B; shock per MIL-S-901, grade A; no safety wire.
- Approved data governs. Use the part the drawing, SRM or IPC calls for.

SOURCES · MS3057 Rev. E, 10 May 1982 — Clamps, Cable, Electrical Connector

SCAN · OPEN THIS DATA SHEET
theaviationpoint.com/parts/electrical/ms3057/

Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.