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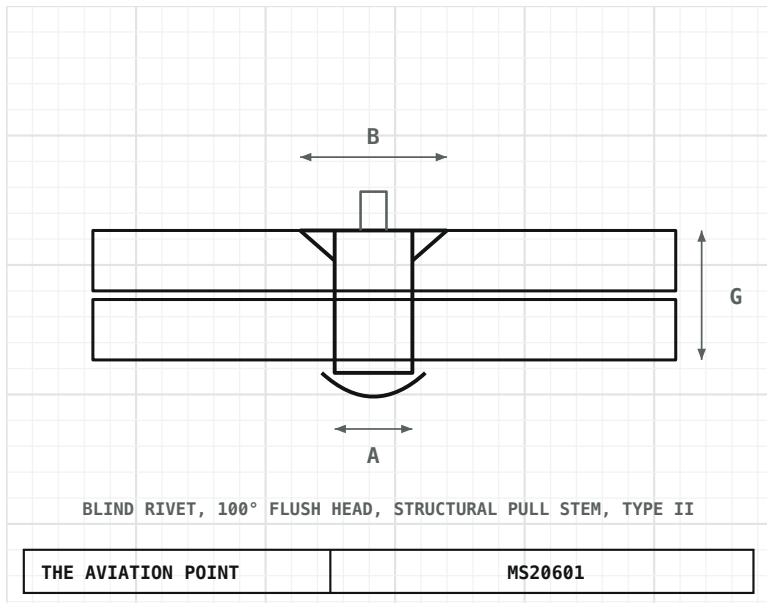
The Aviation Point

MS20601 — blind rivet, 100° flush head, structural pull stem, Type II

MS20601: structural blind rivet, pull stem, self-plugging, 100° flush head, Type II, in 2117 or 5056 aluminum alloy or Monel.



MS20601



Engineering drawing · dimensions in inches

Specification

Item	Value
Type	Blind rivet, structural, self-plugging, 100° flush head
Material	Sleeve: 2117 or 5056 aluminum alloy (QQ-A-430) or Monel, class A (QQ-N-281). Stem: 2017 or 5056 aluminum alloy (QQ-A-430) or Monel, class A (QQ-N-281)
Finish	Aluminum alloy: anodize (MIL-A-8625) or chemical surface treatment (MIL-C-5541). Monel: cadmium plated (MP)
Procurement	MIL-R-7885
Status	Cancelled by Notice 1 (Mar 2000) and superseded by NASM20601; the part numbers are identical.

Dimensions by size

Dimension, in	1/8	5/32	3/16	1/4
A — A, shank dia (+.003 / -.001)	.125	.156	.187	.250
B — B, head dia (+.004), to theoretical sharp corners	.225	.286	.353	.476
C — C, head height, ref	.042	.055	.070	.095
H — H, dia, max	.110	.138	.161	.215
J — J, min	.750	.750	.750	1.000

Dimensions in inches, as tabulated in the standard (letters as on its drawing).

Part numbers

1/8 12 part numbers

Part no.	Grip min, in	Grip max, in	Length max, in	F max, in	5056 Al sleeve	Monel sleeve	Monel, cadmium plated
MS20601AD4W1	—	.062	.170	.500	MS20601B4W1	MS20601M4W1	MS20601MP4W1
MS20601AD4W2	.063	.125	.232	.562	MS20601B4W2	MS20601M4W2	MS20601MP4W2
MS20601AD4W3	.126	.187	.295	.750	MS20601B4W3	MS20601M4W3	MS20601MP4W3
MS20601AD4W4	.188	.250	.357	.812	MS20601B4W4	MS20601M4W4	MS20601MP4W4
MS20601AD4W5	.251	.312	.420	1.010	MS20601B4W5	MS20601M4W5	MS20601MP4W5
MS20601AD4W6	.313	.375	.482	1.072	MS20601B4W6	MS20601M4W6	MS20601MP4W6
MS20601AD4W7	.376	.437	.545	1.197	MS20601B4W7	MS20601M4W7	MS20601MP4W7
MS20601AD4W8	.438	.500	.607	1.322	MS20601B4W8	MS20601M4W8	MS20601MP4W8
MS20601AD4W9	.501	.562	.670	1.509	MS20601B4W9	MS20601M4W9	MS20601MP4W9
MS20601AD4W10	.563	.625	.722	1.600	MS20601B4W10	MS20601M4W10	MS20601MP4W10
MS20601AD4W11	.626	.687	.785	1.730	MS20601B4W11	MS20601M4W11	MS20601MP4W11
MS20601AD4W12	.688	.750	.847	1.820	MS20601B4W12	MS20601M4W12	MS20601MP4W12

5/32 13 part numbers

Part no.	Grip min, in	Grip max, in	Length max, in	F max, in	5056 Al sleeve	Monel sleeve	Monel, cadmium plated
MS20601AD5W2	.065	.125	.254	.620	MS20601B5W2	MS20601M5W2	MS20601MP5W2
MS20601AD5W3	.126	.187	.317	.808	MS20601B5W3	MS20601M5W3	MS20601MP5W3
MS20601AD5W4	.188	.250	.379	.870	MS20601B5W4	MS20601M5W4	MS20601MP5W4
MS20601AD5W5	.251	.312	.441	1.058	MS20601B5W5	MS20601M5W5	MS20601MP5W5
MS20601AD5W6	.313	.375	.503	1.120	MS20601B5W6	MS20601M5W6	MS20601MP5W6
MS20601AD5W7	.376	.437	.567	1.339	MS20601B5W7	MS20601M5W7	MS20601MP5W7
MS20601AD5W8	.438	.500	.629	1.401	MS20601B5W8	MS20601M5W8	MS20601MP5W8
MS20601AD5W9	.501	.562	.692	1.567	MS20601B5W9	MS20601M5W9	MS20601MP5W9
MS20601AD5W10	.563	.625	.754	1.630	MS20601B5W10	MS20601M5W10	MS20601MP5W10
MS20601AD5W11	.626	.687	.817	1.817	MS20601B5W11	MS20601M5W11	MS20601MP5W11
MS20601AD5W12	.688	.750	.879	1.880	MS20601B5W12	MS20601M5W12	MS20601MP5W12
MS20601AD5W13	.751	.812	.942	2.067	MS20601B5W13	MS20601M5W13	MS20601MP5W13
MS20601AD5W14	.813	.875	1.004	2.130	MS20601B5W14	MS20601M5W14	MS20601MP5W14

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

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3/16 13 part numbers

Part no.	Grip min, in	Grip max, in	Length max, in	F max, in	5056 Al sleeve	Monel sleeve	Monel, cadmium plated
MS20601AD6W2	.080	.125	.277	.700	MS20601B6W2	MS20601M6W2	MS20601MP6W2
MS20601AD6W3	.126	.187	.340	.888	MS20601B6W3	MS20601M6W3	MS20601MP6W3
MS20601AD6W4	.188	.250	.402	.950	MS20601B6W4	MS20601M6W4	MS20601MP6W4
MS20601AD6W5	.251	.312	.465	1.138	MS20601B6W5	MS20601M6W5	MS20601MP6W5
MS20601AD6W6	.313	.375	.527	1.200	MS20601B6W6	MS20601M6W6	MS20601MP6W6
MS20601AD6W7	.376	.437	.590	1.419	MS20601B6W7	MS20601M6W7	MS20601MP6W7
MS20601AD6W8	.438	.500	.652	1.481	MS20601B6W8	MS20601M6W8	MS20601MP6W8
MS20601AD6W9	.501	.562	.715	1.637	MS20601B6W9	MS20601M6W9	MS20601MP6W9
MS20601AD6W10	.563	.625	.777	1.699	MS20601B6W10	MS20601M6W10	MS20601MP6W10
MS20601AD6W11	.626	.687	.840	1.887	MS20601B6W11	MS20601M6W11	MS20601MP6W11
MS20601AD6W12	.688	.750	.902	1.949	MS20601B6W12	MS20601M6W12	MS20601MP6W12
MS20601AD6W13	.751	.812	.965	2.074	MS20601B6W13	MS20601M6W13	MS20601MP6W13
MS20601AD6W14	.813	.875	1.027	2.199	MS20601B6W14	MS20601M6W14	MS20601MP6W14

1/4 14 part numbers

Part no.	Grip min, in	Grip max, in	Length max, in	F max, in	5056 Al sleeve	Monel sleeve	Monel, cadmium plated
MS20601AD8W3	.125	.187	.385	.968	MS20601B8W3	MS20601M8W3	MS20601MP8W3
MS20601AD8W4	.188	.250	.447	1.030	MS20601B8W4	MS20601M8W4	MS20601MP8W4
MS20601AD8W5	.251	.312	.510	1.218	MS20601B8W5	MS20601M8W5	MS20601MP8W5
MS20601AD8W6	.313	.375	.572	1.280	MS20601B8W6	MS20601M8W6	MS20601MP8W6
MS20601AD8W7	.376	.437	.635	1.468	MS20601B8W7	MS20601M8W7	MS20601MP8W7
MS20601AD8W8	.438	.500	.697	1.530	MS20601B8W8	MS20601M8W8	MS20601MP8W8
MS20601AD8W9	.501	.562	.760	1.718	MS20601B8W9	MS20601M8W9	MS20601MP8W9
MS20601AD8W10	.563	.625	.822	1.780	MS20601B8W10	MS20601M8W10	MS20601MP8W10
MS20601AD8W11	.626	.687	.885	1.968	MS20601B8W11	MS20601M8W11	MS20601MP8W11
MS20601AD8W12	.688	.750	.947	2.030	MS20601B8W12	MS20601M8W12	MS20601MP8W12
MS20601AD8W13	.751	.812	1.010	2.218	MS20601B8W13	MS20601M8W13	MS20601MP8W13
MS20601AD8W14	.813	.875	1.072	2.280	MS20601B8W14	MS20601M8W14	MS20601MP8W14
MS20601AD8W15	.876	.937	1.134	—	MS20601B8W15	MS20601M8W15	MS20601MP8W15
MS20601AD8W16	.938	1.000	—	2.530	MS20601B8W16	MS20601M8W16	MS20601MP8W16

How to read the part number

Part	Meaning
Format	MS20601<material><dash>
AD	Material: 2117 aluminum alloy sleeve
B	Material: 5056 aluminum alloy sleeve
M	Material: Monel sleeve
MP	Material: Monel sleeve, cadmium plated
Example	MS20601AD5W5 — 2117 aluminum alloy sleeve, .156 dia, serrated stem, .251 to .312 grip range

Notes

- **Cancelled: use NASM20601.** MS20601 is cancelled (Cancelled by Notice 1 (Mar 2000) and superseded by NASM20601; the part numbers are identical.). Replacement named by the standard: NASM20601. The old number MS20601AD4W1 still turns up on drawings and IPCs: check the replacement for each part before you order.
- Part number: MS20601, the sleeve material letters in place of the dash (AD 2117 aluminum alloy, B 5056 aluminum alloy, M Monel; P after the material letter for cadmium plate), the diameter in 32nds, W for the serrated stem and the grip number: MS20601AD5W5.
- Grip number 1 covers grips up to .062 in. Length is the maximum length of the sleeve.
- Head angle 100° ±1° (aluminum alloy), ±1-1/2° (Monel). Head edge .002 - .006 (aluminum alloy), .002 - .015 (Monel).
- 5056 aluminum alloy rivets are identified by an orange color, color number 32246.
- .001 in shank diameter increase permissible within .100 in of the base of the head.
- Serrated stem rivets (series W) are universally, functionally and dimensionally interchangeable with knob stem rivets (series K) with proper tooling. Knob stem rivets (series K) and rivets with no stem letter were inactive for design after 21 March 1962.
- Interchangeability: inactive MS20605 numbers AD4E, AD5E, AD6E, AD8E, B4E, B5E, B6E, B8E, M4E, M5E, M6E and M8E are replaced by MS20601 AD4W, AD5W, AD6W, AD8W, B4W, B5W, B6W, B8W, M4W, M5W, M6W and M8W; ML_E and MP_E by MP_W of the same diameter. Corresponding grip numbers are directly interchangeable. AD3E, B3E, ML3E, MP3E and M3E have no substitute.
- Qualified products: QPL-7885. Design usage limitations: MS33522.
- Approved data governs. Use the fastener the SRM, drawing or IPC calls for.

SOURCES · MS20601 Rev. J, 10 Aug 1992 — Rivet, Blind, Structural, Pull Stem, Self-Plugging, 100° Flush Head, Type II

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theaviationpoint.com/parts/blind-fasteners/ms20601/

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