

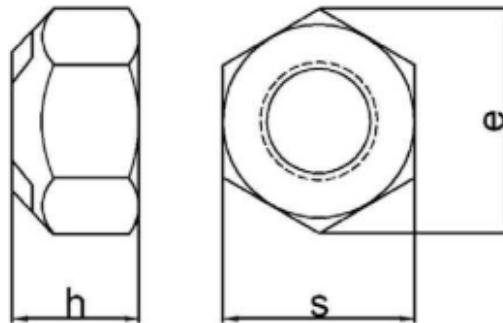
P R O D U C T D A T A S H E E T

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DIN 980 Type V All Metal Lock Nuts - Metric Series

1.0 Dimensions: DIN 980

2.0 Key Dimensions



2.1 Key Dimensions Table

Thread Size	Width Across Flats		Width Across Corners	Nut Height	
	S		e	h	
	Maximum	Minimum	Minimum	Maximum	Minimum
M3	5.5	5.32	6.01	3.7	3.4
M4	7	6.78	7.66	4.2	3.9
M5	8	7.78	8.79	5.1	4.8
M6	10	9.78	11.05	6	5.7
M7	11	10.73	12.12	7	6.5
M8	13	12.73	14.38	8	7.5
M10	17	16.73	18.9	10	9
M12	19	18.67	21.1	12	11
M14	22	21.67	24.49	14	12
M16	24	23.67	26.75	16	14
M18	27	26.16	29.56	18	16
M20	30	29.16	32.95	20	18
M22	32	31	35.03	22	20
M24	36	35	39.55	24	22
M27	41	40	45.2	27	25
M30	46	45	50.85	30	28
M33	50	49	55.37	33	31
M36	55	53.8	60.79	36	34
M39	60	58.8	66.44	39	37



PRODUCT DATA SHEET

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Notes:

- 1) All dimensions in millimeters.
- 2) Thread tolerance: 6H. For a detailed explanation of thread tolerances and dimensions for all thread sizes, refer to the Product Data Sheet on "Thread Details Metric Series".
- 3) BBI stocks most sizes in coarse thread and some sizes in fine thread. If we do not stock a size, it is available through our Mill department.
- 4) The prevailing torque design and the number of deformations is at the manufacturer's option.
- 5) Comparison to ISO: DIN 980 is **not** a comparable standard to ISO 7719. Tolerances on nut height are different between the two standards. Additionally, the across flats is different for M10, M12, M14 and M22.

3.0 Mechanical Properties:

A detailed explanation of the metric property class designations for various types of fasteners can be found in the Product Data Sheet (PDS) titled "Property Classes Metric Series".

3.1 DIN 980V Steel: Standard ISO 898-2 for coarse threads and DIN 267 Part 4 for fine threads.

3.1.1 Steel: Mechanical Properties Table for Coarse Threads. Standard: ISO 898-2

Property Class	8		10	
Hardness	91.5 HRB to 33.9 HRC		26.5 HRC to 36.9 HRC	
Approximate Proof Load Strength	Thread Diameter	Proof Load	Thread Diameter	Proof Load
	M5 & M6	855 MPa	M5 to M10	1040 MPa
	M8 & M10	870 MPa		
	M12 to M16	880 MPa	M12 to M16	1050 MPa
	M20	920 MPa	M20	1060 MPa
Property Class Marking	8		10	

3.1.2 Steel: Mechanical Properties Table for Fine Threads. Standard: DIN 267 Part 4

Property Class	8	10
Hardness	30 HRC Max	36 HRC Max
Proof Load	800 MPa	1000 MPa
Property Class Marking	8	10



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Notes:

- 1) BBI currently stocks property classes 8 and 10 DIN 980 Style V nuts in coarse thread in most sizes and some in fine thread. Requirements for other property classes and fine thread sizes can be made and supplied through our Mill department.
- 2) Prevailing torque requirements in accordance with DIN 267 Part 15.
- 3) 1 MPa = Megapascal, the metric unit similar to Inch KSI and used for proof load strength of nuts. It is also termed as N/mm² (Newton Per millimeter square). 1 MPa = 1 N/mm² = 145.03773 psi.
- 4) While DIN 980 specifies DIN 267 Part 4 for mechanical properties for fine thread nuts, manufacturers often make them to ISO 898-2, which has a slightly higher proof load value and mark the nuts with 8 or 10 and not |8| or |10|.

4.0 Surface Finish:

Steel: Zinc Plate and Wax. Zinc plating details shown in the table below.

Plating	Zinc
Type	Trivalent (Cr+3)
Color	Clear
Minimum Coating Thickness	0.0001" / 3 Microns
Specification	ASTM F1941/F1941M Fe/Zn 3AN

Disclaimer: The above is a compilation of data, from various industry standards. BBI has taken every effort to present the data accurately. However BBI cannot be held liable for any claim traceable to any errors typographical or otherwise contained herein.