

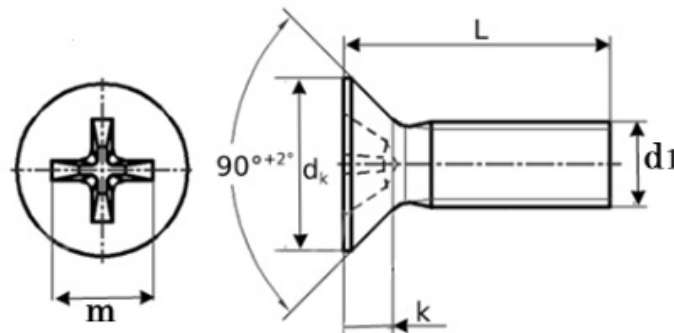
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DIN 965A Philips Flat Head Machine Screws - Metric Series

1.0 Dimensions: DIN 965

2.0 Key Dimensions



2.1 Key Dimensions Table

d_1	d_k		k		m		
Thread size	Head Diameter		Head Height	Drive Size	Recess Diameter	Recess Penetration Depth	
	Min	Max	Max	No	Approx.	Min	Max
M1.6	2.75	3	0.96	0	1.7	0.66	0.91
M2	3.5	3.8	1.2	1	2.35	0.95	1.25
M2.5	4.4	4.7	1.5	1	2.7	1.25	1.55
M3	5.3	5.6	1.65	1	2.9	1.5	1.8
M3.5	6.14	6.5	1.93	2	3.9	1.4	1.9
M4	7.14	7.5	2.2	2	4.4	1.9	2.4
M5	8.84	9.2	2.5	2	4.4	2.1	2.6
M6	10.57	11	3	3	6.6	2.8	3.3
M8	14.07	14.5	4	4	8.7	3.9	4.4
M10	17.57	18	5	4	9.6	4.8	5.3



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Notes:

- 1) DIN 965 specifies both full thread (FT) and partial thread (PT). Suppliers can supply full thread for all lengths provided it is designated as DIN 965A. BBI currently stocks only full thread machine screws and partial threaded can be supplied through our mill department.
- 2) Thread Tolerance: **Plain:** 6g. **Zinc plated:** 6g before plating and must meet 6h GO and 6g NO-GO ring gages after plating. 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) **Comparison of DIN & ISO Standards:** The ISO standards for Philips flat head machine screw is ISO 7046. There are differences between DIN and ISO standard dimensions. However, these differences do not apply uniformly across all dimensions and sizes. As a result, these standards are not interchangeable, meaning one cannot be substituted for the other. BBI Currently stocks DIN 965A (fully threaded) Philips flat head machine screws. ISO 7046 standard Philips flat head machine screws can be supplied through our mill department.

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 Steel: ISO 898-1

3.1.1 Mechanical Properties: ISO 898-1

Property Class	Hardness	Ultimate Tensile Strength (Minimum)	Marking
4.8	HRB 71-95.0	420 MPa	No Marking

Notes:

- 1) 1MPa = 145.03773 PSI
- 2) BBI currently stocks property class 4.8. Other property classes can be supplied through our mill department.



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3.2 Stainless Steel: ISO 3506-1

3.2.1 Stainless Steel: Mechanical Properties ISO 3506-1

Property Class	Tensile Strength (Minimum)	Yield Strength (Minimum)	Marking
A2-70	700 MPa	450 MPa	No Marking

Notes:

- 1) 1MPa = 145.03773 PSI
- 2) Suppliers may not perform tensile test on these machine screws. Hardness is not a requisite mechanical property for austenitic stainless-steel screws per ISO 3506-1.

4.0 Surface Finish:

4.1 Steel: Zinc Plated (See details below)

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

4.2 Stainless Steel: Passivated