

## FEATURES

- Requires a Hex key / Allen key
- Also used in many internal joinery applications
- Have the marking on the head

# RS PRO M6 x 16mm Hex Socket Countersunk Screw Black, Self-Colour Steel

RS Stock No.: 281-502



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

## Product Description

RS PRO hexagon socket countersunk screws are an excellent choice when you need a fastener to sit flush or below the surface of your material. These popular metric thread countersunk screws are produced in 10.9 grade steel and are designed for light duty applications where space is limited. These fasteners have a black finish which ensures an attractive, quality appearance and finish wherever they are used.

## General Specifications

<b>Thread Size</b>	M6
<b>Head Shape</b>	Hex Socket Countersunk
<b>Material</b>	Steel
<b>Finish</b>	Furnace Black
<b>Thread Type</b>	Metric
<b>Grade</b>	10.9
<b>Applications</b>	Woodworking, Domestic applications, Fasteners and fixings, Machine tooling and repair, Security guarding, Panel Building

## Mechanical Specifications

<b>Length</b>	16mm
<b>Thread Pitch</b>	1mm
<b>Head Diameter Range</b>	11.57mm to 13.44mm
<b>Head Height Range</b>	3.3mm to 3.72mm
<b>Key Size Nominal Range</b>	4mm to 4.12mm
<b>Key Engagement</b>	2.25mm
<b>Thread Tolerance</b>	6g

## Approvals

### Compliance/Certifications

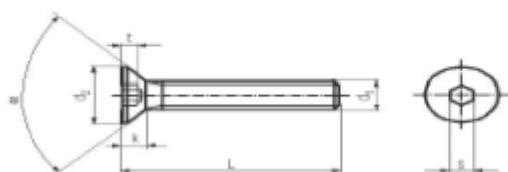
RoHS Certificate Of Compliance ,DIN7991 , ISO10642  
, ANSI B18



Please view our full range listing below for all Steel Black Self-Colour, Hexagon Countersunk Socket Screws:

Head Shape	Material	Thread Size	Length	RS Part No.
Hex Socket Countersunk	Steel	M3	6 mm	281372
Hex Socket Countersunk	Steel	M3	8 mm	281388
Hex Socket Countersunk	Steel	M3	10 mm	281394
Hex Socket Countersunk	Steel	M3	12 mm	281401
Hex Socket Countersunk	Steel	M3	16 mm	292423
Hex Socket Countersunk	Steel	M3	20 mm	292439
Hex Socket Countersunk	Steel	M4	8 mm	281417
Hex Socket Countersunk	Steel	M4	10 mm	281423
Hex Socket Countersunk	Steel	M4	12 mm	281439
Hex Socket Countersunk	Steel	M4	16 mm	281445
Hex Socket Countersunk	Steel	M4	20 mm	292445
Hex Socket Countersunk	Steel	M4	25 mm	292451
Hex Socket Countersunk	Steel	M5	10 mm	281451
Hex Socket Countersunk	Steel	M5	12 mm	281467
Hex Socket Countersunk	Steel	M5	16 mm	281473
Hex Socket Countersunk	Steel	M5	20 mm	281489
Hex Socket Countersunk	Steel	M5	25 mm	292467
Hex Socket Countersunk	Steel	M5	30 mm	292473
Hex Socket Countersunk	Steel	M6	10 mm	281495
Hex Socket Countersunk	Steel	M6	16 mm	281502
Hex Socket Countersunk	Steel	M6	20 mm	281518
Hex Socket Countersunk	Steel	M6	25 mm	281524
Hex Socket Countersunk	Steel	M6	30 mm	292489
Hex Socket Countersunk	Steel	M6	35 mm	292495
Hex Socket Countersunk	Steel	M6	40 mm	8229142
Hex Socket Countersunk	Steel	M6	50 mm	8229145
Hex Socket Countersunk	Steel	M8	16 mm	281546
Hex Socket Countersunk	Steel	M8	20 mm	281552
Hex Socket Countersunk	Steel	M8	25 mm	281568
Hex Socket Countersunk	Steel	M8	30 mm	292502
Hex Socket Countersunk	Steel	M8	35 mm	292518
Hex Socket Countersunk	Steel	M8	40 mm	8229149
Hex Socket Countersunk	Steel	M8	50 mm	8229158
Hex Socket Countersunk	Steel	M8	75 mm	8229151

FLAT HEAD SOCKET CAP SCREWS DIN 7991 / ISO 10642 / ANSI B18.3.5M



\*\*\*\*\*Notice\*\*\*\*\*  
 Lindstrom Metric, LLC will supply all Flat Head Socket Cap Screws With Full Thread, not according to below formulas.

Thread Size d1		(M2)	(M2.5)	M3	M4	M5	M6	M8	M10	M12	(M14)	M16	(M18)	M20	(M22)	M24
Thread Pitch		0.4	0.45	0.5	0.7	0.8	1	1.25	1.5	1.75	2	2.5	2.5	2.5	2.5	3
Head Angle α		90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	60°	60°
DIN 7991 Thread Length Formula	For Lengths ≤125mm	10	11	12	14	16	18	22	26	30	34	38	42	46	50	54
	For Lengths =125mm-200mm						24	28	32	36	40	44	48	52	56	60
	For Lengths >200 mm							45	49	53	57	61	65	69	73	
ISO 10642 & ANSI B18.3.5M use a shank length / grip length formula to determine thread length. - Refer to full ISO or ANSI standard for more details.																
DIN 7991 Head Dia. d2	min.	3.7	4.7	5.7	7.64	9.64	11.57	15.57	19.48	23.48	26.48	29.48	32.38	35.38	35.38	38.38
	max. = nominal	4.0	5.0	6.0	8.00	10.00	12.00	16.00	20.00	24.00	27.00	30.00	33.00	36.00	36.00	39.00
ISO 10642 Head Dia. d2	min.			5.64	7.53	9.43	11.34	15.24	19.22	23.12	26.52	29.01		36.05		
	max. = theoretical			6.72	8.96	11.20	13.44	17.92	22.40	26.88	30.80	33.60		40.32		
ANSI B18.3.5M Head Dia. D2	min.			5.35	7.80	9.75	11.70	15.65	19.50	23.40	26.18	23.75		34.60		
	max. = theoretical			6.72	8.96	11.20	13.44	17.92	22.40	26.88	30.24	33.60		40.32		
ISO 10642 & ANSI B18.3.5M use a theoretical value for the max head diameter, which represents the exact diameter of a hole countersunk to exactly 90° in which a screw having the maximum head size will fit flush. - Refer to full ISO or ANSI standard for more details.																
DIN 7991 Head Height k	max.	1.2	1.5	1.7	2.3	2.8	3.3	4.4	5.5	6.5	7	7.5	8	8.5	13.1	14
ISO 10642 Head Height k	max. = reference			1.86	2.48	3.10	3.72	4.96	6.20	7.44	8.40	8.80		10.16		
ANSI B18.3.5M Head Height k	max. = reference			1.86	2.48	3.10	3.72	4.96	6.20	7.44	8.12	8.80		10.16		
ISO 10642 & ANSI B18.3.5M show Head Height k as a reference point only. - Refer to full ISO or ANSI standard for more details.																
For DIN 7991 / ISO 10642 / ANSI B18.3.5M, the overall length of the screw includes the head.																
DIN 7991 Key Size s	Nominal Size	1.3	1.5	2	2.5	3	4	5	6	8	10	10	12	12	14	14
	min.	1.275	1.545	2.02	2.52	3.02	4.02	5.02	6.02	8.025	10.025	10.025	12.032	12.032	14.032	14.032
ISO 10642 Key Size s	min.			2.02	2.52	3.02	4.020	5.02	6.02	8.025	10.025	10.025		12.032		
	max.			2.06	2.58	3.08	4.095	5.14	6.14	8.175	10.175	10.175		12.212		
ANSI B18.3.5M Key Size s	Nominal Size	2	2.5	3	4	5	6	8	10	10	12	12		14		
	min.			2.020	2.52	3.020	4.020	5.020	6.020	8.025	10.025	10.025		12.032		
DIN 7991 Key Engagement t	min.	0.75	0.8	0.950	1.55	2.05	2.25	3.2	4.1	4.3	4.5	5.0	5.2	5.6	8.44	9.87
				1.100	1.50	1.90	2.20	3.0	3.6	4.3	4.5	4.8		5.6		
ISO 10642 Key Engagement t	min.			1.100	1.50	1.90	2.20	3.0	3.6	4.3	4.5	4.8		5.6		
ANSI B18.3.5M Key Engagement t	min.			1.100	1.50	1.90	2.20	3.0	3.6	4.3	4.7	4.8		5.6		

Length Tolerance	DIN 7991 / ISO 10642		ANSI B18.3.5M		Length Tolerance	DIN 7991 / ISO 10642		ANSI B18.3.5M	
	min	max	min	max		min	max	min	max
Nominal Length									
(4)	3.76	4.24	3.7	4.3	30	29.58	30.42	29.5	30.5
(5)	4.76	5.24	4.7	5.3	35	34.5	35.5	34.5	35.5
(6)	5.76	6.24	5.7	6.3	40	39.5	40.5	39.5	40.5
8	7.71	8.29	7.7	8.3	45	44.5	45.5	44.5	45.5
10	9.71	10.29	9.7	10.3	50	49.5	50.5	49.5	50.5
12	11.65	12.35	11.7	12.3	(55)	54.4	55.6	54.5	55.5
(14)	13.65	14.35	13.7	14.3	60	59.4	60.6	59.5	60.5
16	15.65	16.35	15.7	16.3	(65)	64.4	65.6	64.2	65.8
(18)	17.65	18.35	17.5	18.5	70	69.4	70.6	69.2	70.8
20	19.59	20.42	19.5	20.5	(75)	74.4	75.6	74.2	75.8
(22)	21.59	22.42	21.5	22.5	80	79.4	80.6	79.2	80.8
25	24.58	25.42	24.5	25.5	90	89.3	90.7	89.2	90.8
(28)	27.58	28.42	27.5	28.5	100	99.3	100.7	99.2	100.8

\*\*\*\*\*Notice\*\*\*\*\*  
 Diameters and or Lengths shown with ( ) are not shown in some standards are not recommended for use in new design.

\*\*\*\*\*Notice\*\*\*\*\*  
 DIN 7991, ISO 10642, and ANSI B18.3.5M are not intended for high strength applications. The only purpose of having them produced in property class 18.9 or 12.9 is to increase the wear resistance of the socket drive.

	DIN 7991 / ISO 10642		ANSI B18.3.5M
	Steel	Stainless Steel	Steel
Material			
Property Class	10.9	A2 & A4	12.9
Finish	Furnace Black	Plain	Furnace Black
Thread Tolerance	6g	6g	4g6g