



## Datasheet

### Stainless Steel Hexagon Socket Cap Head Screws: Metric Thread.



Socket caps have a small cylindrical head with tall vertical sides giving them space saving advantages as well as greater tensile strength and they require less side room for wrenches.

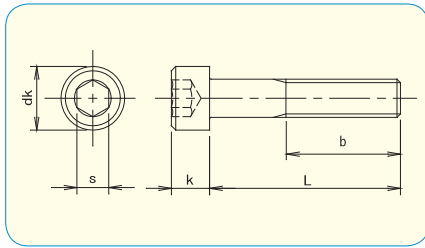
- Steel 10.9 / Zinc 3Cr. Plated
- Threaded in accordance with DIN912 standard.
- 1200 MPa maximum tensile strength\* compared to just 800 MPa for structural grade 8.8 so can be used in high tensile applications.
- 1100 yield strength\*\* compared to 640-660 MPa depending on the size of the screw for Structural grade 8.8.
- Used for applications with limited space in high tensile applications.
- Suitable for use in many industrial applications and similarly medical, construction, electronic & domestic applications.
- Requires a Hex key / Allen key.

\*Tensile Strength: The maximum load in tension (pulling apart) which a material can withstand before breaking or fracturing.

\*\*Yield Strength: The maximum load at which a material exhibits a specific permanent deformation.

NOTE: Zinc 3Cr. Plated and Black 3Cr. Plated are RoHS compliant trivalent finishes

## HEX SOCKET CAP SCREW ISO 4762 / JIS B1176 / DIN 912



- **Material · plating**  
 Steel 12.9 (~M20) / Black  
 Steel 10.9 (M22~) / Black



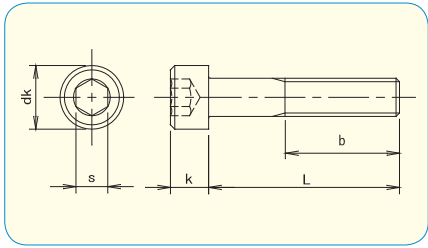
How to order or inquire: R830-912-12- diameter x length (up to M20)  
 How to order or inquire: R830-912-10- diameter x length (M22 and up)  
 Examples: R830-912-12 3x10, R830-912-10 24x35

	M1.6	M2	M2.5	M2.6	M3	M4	M5	M6	M8	M10	M12
dk	3	3.8	4.5	4.5	5.5	7	8.5	10	13	16	18
k	1.6	2	2.5	2.6	3	4	5	6	8	10	12
s	1.5	1.5	2	2	2.5	3	4	5	6	8	10
b	15	16	17	17	18	20	22	24	28	32	36

pcs / Box

d L	M1.6	M2	M2.5	M2.6	M3	M4	M5	M6	M8	M10	M12
3	1,000	500	500	500	500						
4	1,000	500	500	500	500	500	500				
5	1,000	500	500	500	500	500	500	200			
6	1,000	500	500	500	500	500	500	200			
8	1,000	500	500	500	500	500	500	200	100		
10	1,000	500	500	500	500	500	500	200	100	100	
12		500	500	500	500	500	500	200	100	100	100
14		500	500	500	500	500	500	200	100	100	
15		500	500	500	500	500	500	200	100	100	100
16		500	500	500	500	500	500	200	100	100	100
18		500	500	500	500	500	500	200	100	100	100
20		500	500	500	500	500	500	200	100	100	100
22					500	200	200	200	100	100	100
25					200	200	200	200	100	100	100
28					200	200	200	200	100	100	100
30					200	200	200	100	100	100	100
35					200	200	200	100	100	100	50
40					200	200	200	100	100	100	50
45					200	200	200	100	100	100	50
50					200	200	200	100	100	50	50
55						200	200	100	100	50	50
60						200	200	100	100	50	50
65						200	200	100	100	50	50
70						200	200	100	100	50	50
75								100	100	50	50
80								100	100	50	50
85								100	100	50	50
90								100	100	50	25
95								100	50	50	25
100								100	50	50	25
105									50	50	25
110					300				50	50	25
115									50	50	25
120									50	50	25
125									50	25	25
130									50	25	25
140									50	25	25
150									50	30	25
155											
160										30	25
165											
170										30	25
180										30	25
190										30	25
200										30	25

# HEX SOCKET CAP SCREW ISO 4762 / JIS B1176 / DIN 912



- **Material · plating**  
 Steel 12.9 (~M20) / Black  
 Steel 10.9 (M22~) / Black



How to order or inquire: R830-912-12- diameter x length (up to M20)  
 How to order or inquire: R830-912-10- diameter x length (M22 and up)  
 Examples: R830-912-12 3x10, R830-912-10 24x35

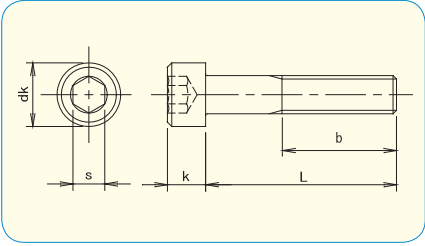
	M1.6	M2	M2.5	M2.6	M3	M4	M5	M6	M8	M10	M12
dk	3	3.8	4.5	4.5	5.5	7	8.5	10	13	16	18
k	1.6	2	2.5	2.6	3	4	5	6	8	10	12
s	1.5	1.5	2	2	2.5	3	4	5	6	8	10
b	15	16	17	17	18	20	22	24	28	32	36

	M14	M16	M20	M24	M36
dk	21	24	30	36	54
k	14	16	20	24	36
s	12	14	17	19	27
b	40	44	52	60	84

		pcs / Box				
L \ d		M14	M16	M20	M24	M36
20		50				
25		50	50			
30		50	50		20	
35		50	40		20	
40		50	40	40		
45		50	40	40		
50		50	30	35		
55		40	30	30		
60		40	30	30		1
65		40	25	30		
70		40	25	25		1
75		40	25	25		
80		40	25	25		1
85		30	25	25		
90		30	20	25		1
95		30	20	25		
100		30	20	20		1
105			20			
110			20			1
115			15			
120			15			1
125			15			
130			15			1
140			15			1
150			15			1
160						1
170						1
180						1
190						1
200						1
210						1
220						1
230						1
240						1
250						1
260						1
280						1
300						1

NOTE: Zinc 3Cr. Plated and Black 3Cr. Plated are RoHS compliant trivalent finishes

# HEX SOCKET CAP SCREW ISO 4762 / JIS B1176 / DIN 912



- **Material · plating**  
 Steel 10.9 / Zinc 3Cr. Plated  
 Steel 10.9 / Zinc Black 3Cr. Plated



How to order or inquire: R830-912-10-finish code diameter x length

Example: R830-912-10-CR3 4x10

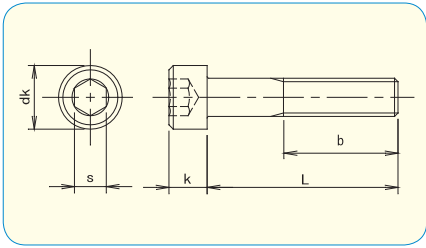
Finish codes: CR3 for Zinc 3Cr. Plated, CR3B for Black 3Cr. Plated

	M2	M2.5	M2.6	M3	M4	M5	M6	M8	M10	M12
dk	3.8	4.5	4.5	5.5	7	8.5	10	13	16	18
k	2	2.5	2.6	3	4	5	6	8	10	12
s	1.5	2	2	2.5	3	4	5	6	8	10
b	16	17	17	18	20	22	24	28	32	36



											pcs / Box
d	L	M2	M2.5	M2.6	M3	M4	M5	M6	M8	M10	M12
3	3	500	500	500	500						
4	4	500	500	500	500	500					
5	5	500	500	500	500	500	500				
6	6	500	500	500	500	500	500	500			
8	8	500	500	500	500	500	500	500			
10	10	500	500	500	500	500	500	500	100	100	
12	12	500	500	500	500	500	500	500	100	100	
14	14	500	500	500	500	500	500	500	100	100	
15	15	500	500	500	500	500	200	200	100	100	
16	16	500	500	500	500	500	200	200	100	100	
18	18	500	500	500	500	500	200	200	100	100	
20	20	500	500	500	500	200	200	200	100	100	
25	25		500		500	200	200	200	100	100	50
30	30				500	200	200	200	100	50	50
35	35				500	200	200	100	100	50	50
40	40				500	200	200	100	100	50	50
45	45				500	200	200	100	100	50	50
50	50				200	200	200	100	100	50	
55	55				200	200	200	100	50	50	
60	60				200	200	200	100	50	50	40
65	65						200	100			
70	70					200	200	100		50	
75	75					200		100			
80	80						100	100			
85	85					100					
90	90							100			
100	100							100	50	30	
110	110										
120	120								50		

# HEX SOCKET CAP SCREW ISO 4762 / JIS B1176 / DIN 912



● **Material**  
Stainless Steel A2



How to order or inquire: R830-DIN 912A2 diameter x length

Example: R830-DIN 912A2 4x16

Material codes: A2 for Stainless Steel A2

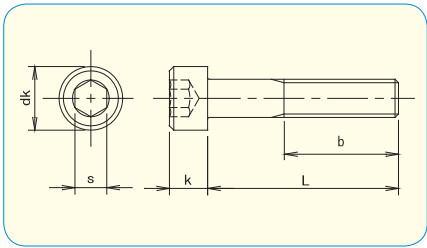
	M1.6	M2	M2.5	M2.6	M3	M4	M5	M6	M8	M10
dk	3	3.8	4.5	4.5	5.5	7	8.5	10	13	16
k	1.6	2	2.5	2.6	3	4	5	6	8	10
s	1.5	1.5	2	2	2.5	3	4	5	6	8
b	15	16	17	17	18	20	22	24	28	32



RoHS Directive Compliance

		pcs / Box								
L \ d	M1.6	M2	M2.5	M2.6	M3	M4	M5	M6	M8	M10
3	1,000	1,000	1,000	1,000	1,000					
4	1,000	1,000	1,000	1,000	500	1,000				
5	1,000	1,000	1,000	1,000	500	500	500			
6	1,000	1,000	1,000	1,000	500	500	500	500		
8	1,000	1,000	1,000	1,000	500	500	500	200	100	
10	1,000	1,000	1,000	1,000	500	500	500	200	100	100
12	1,000	1,000	1,000	1,000	500	500	500	200	100	100
14		1,000	1,000	1,000	500	500	500	200	100	100
15		1,000	1,000	1,000	500	500	500	200	100	100
16		1,000	1,000	1,000	500	500	200	200	100	100
18		1,000	1,000	1,000	500	500	200	200	100	100
20		1,000	1,000	1,000	500	500	200	200	100	100
22					200	500	200	200	100	100
25		1,000	1,000	1,000	200	500	200	200	100	100
28					200	200	200	200	100	100
30		1,000	1,000	1,000	200	200	200	200	100	50
35					200	200	200	200	100	50
40		1,000	1,000	1,000	200	200	200	200	100	50
45					200	200	100	200	100	50
50					200	200	100	200	100	50
55					200	200	100	100	50	50
60					200	200	100	100	50	50
65					200	200	100	100	50	50
70					200	200	100	100	50	40
75					200	200	100	100	50	40
80					200	200	100	100	50	40
85					200	200	100	100	50	40
90					200	200	100	100	50	30
95					200	100	100	100	50	30
100					200	100	100	100	50	30
105							100	100	50	25
110							100	100	50	30
115							100	100	50	25
120							100	100	50	30
125								100	50	25
130							100	100	50	30
140							100	100	50	30
150							100	100	50	30
155								100	50	30
160								100	50	30
165										30
170								100	50	30
180								100	70	30
190								100	70	30
200								100	70	30
210									70	
220									50	30
230									50	30
240										
250									50	30

# HEX SOCKET CAP SCREW ISO 4762 / JIS B1176 / DIN 912



● **Material**  
Stainless Steel A2



How to order or inquire: R830-DIN 912A2 diameter x length

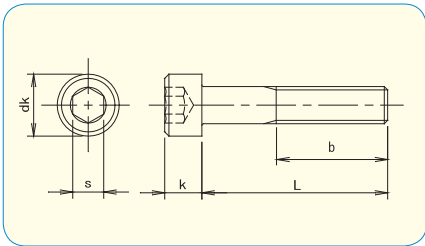
Example: R830-DIN 912A2 4x16

Material codes: A2 for Stainless Steel A2

	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36
dk	18	21	24	27	30	33	36	40	45	50	54
k	12	14	16	18	20	22	24	27	30	33	36
s	10	12	14	14	17	17	19	19	22	24	27
b	36	40	44	48	52	56	60	66	72	78	84

		pcs / Box										
d	L	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36
12	50											
14	50											
15	50											
16	50											
18	50											
20	50	40	40									
22	50											
25	50	40	50		20							
30	50	40	50	10	20	15	5					
35	50	40	50	10	20	15	5					
40	50	30	40	10	20	15	5					
45	50	30	40	10	15	15	5					
50	40	30	40	10	15	15	5	5	4			
55	40	25	35	10	15	15	5	5	4			
60	30	25	30	10	15	15	5	5	4			
65	30	25	30	10	15	15	5	5	4			
70	30	25	30	10	15	15	5	5	4	1	1	
75	30	25	25	10	12	15	5	5	4	1	1	
80	30	25	25	10	12	15	5	5	4	1	1	
85	30	25	25	10	10	15	5	5	4	1	1	
90	25	25	25	10	10	15	5	5	4	1	1	
95	25	15	20		10	15	5	5	4		1	
100	25	15	20	10	10	15	5	5	4	1	1	
105	25	15	15			15	5					
110	20	15	15	10	10	15	5	5	4	1	1	
115	20	15	15			15	5					
120	20	15	12	10	8	15	5	5	4	1	1	
125	20	15	15			10	5					
130	20	15	12	10	8	10	5	5	4	1	1	
140	20	15	12	10	8	10	5	5	4	1	1	
150	20	15	12	10	6	10	5	5	4	1	1	
160	20	15	12	10	6	10	5	5	4		1	
170	20	15	12	10	6	10	5	5	4		1	
180	20	15	12	10	6	10	5	5	4		1	
190	20	15	12		6	10	5	5	3		1	
200	20	15	10	10	6	10	5	5	3		1	
210			10									
220	20		10									
230	20		10		6		5		3			
240	20		10									
250	20	20	10		6	10	5	5	3		1	
260			10									
280							5					
300	20	15	10		5	10	5	5	3		1	

**HEX SOCKET CAP SCREW ISO 4762 / JIS B1176 / DIN 912**



● **Material**

**SUS 316L**

Stainless Steel A4



How to order or inquire: R830-DIN 912-material code diameter x length

Example: R830-DIN 912-316L 4x16

Material codes: 316L for Stainless Steel 316L

	M3	M4	M5	M6	M8	M10	M12	M14
dk	5.5	7	8.5	10	13	16	18	21
k	3	4	5	6	8	10	12	14
s	2.5	3	4	5	6	8	10	12



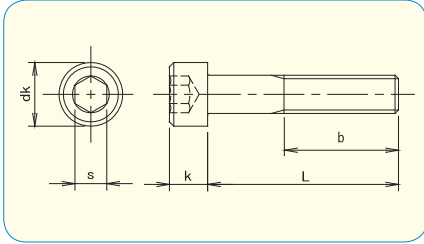
									pcs / Box
L \ d	M3	M4	M5	M6	M8	M10	M12	M14	
4	500	500							
5	500	500	300						
6	500	500	300	300					
8	500	500	300	300					
10	500	500	300	300	200				
12	500	500	300	300	200				
14	500	500	300	300	200				
15	500	500	300	300	200	100	100		
16	500	500	300	300	200	100	100		
18	500	500	300	300	200				
20	500	500	300	300	200	100	100		
25	* 500	500	300	300	200	100	100	30	
30	* 500	* 500	* 300	300	200	100	100	30	
35	* 500	* 500	* 300	* 300	200	100	100	30	
40	* 500	* 500	* 300	* 300	* 200	100	100	30	
45	* 500	* 500	* 300	* 300	* 200	* 100	100	30	
50	* 500	* 500	* 300	* 300	* 200	* 100	* 100	30	
55		* 500	* 300	* 300	* 200	* 100	* 100		
60		* 500	* 300	* 300	* 200	* 100	* 100	* 30	
65		* 500	* 300	* 300	* 200	* 100	* 100		
70		* 500	* 300	* 300	* 200	* 100	* 100		
75		* 500	* 300	* 300	* 200	* 100	* 100		
80		* 500	* 300	* 300	* 200	* 100	* 100		
85				* 300	* 200		* 100		
90				* 300	* 200	* 100	* 100		
95				* 300	* 200				
100				* 300	* 200	* 100	* 100		
110						* 100	* 100		
120						* 100	* 100		
130						* 100	* 100		
140						* 100	* 100		
150						* 100	* 100		

\* ... Half thread



**TITAN**

## HEX SOCKET CAP SCREW ISO 4762 / JIS B1176 / DIN 912



How to order or inquire: R830-DIN 912-material code diameter x length

Example: R830-DIN 912-TI 4x16

Material codes: TI for Titanium

	M3	M4	M5	M6	M8	M10	M12	M16
dk	5.5	7	8.5	10	13	16	18	24
k	3	4	5	6	8	10	12	16
s	2.5	3	4	5	6	8	10	14

● **Material** **TITAN**

pcs / Box

L \ d	M3	M4	M5	M6	M8	M10	M12
6	200	200					
8	200	200	100	100			
10	200	200	100	100			
12	200	200	100	100			
15	200	200	100	100	100	50	
16	200	200	100	100	100	50	
20	200	200	100	100	100	50	
25	* 200	200	100	100	100	50	30
30		* 200	* 100	100	100	50	30
35		* 200	* 100	* 100	100	50	30
40		* 200	* 100	* 100	* 100	50	30
45			* 100	* 100	* 100	* 50	30
50			* 100	* 100	* 100	* 50	30
55			* 100	* 100	* 100	* 50	* 30
60			* 100	* 100	* 100	* 50	* 30



\* ... Half thread

● **Material · plating** Steel 12.9 / **DISGO**

pcs / Box

L \ d	M6	M8	M10	M12	M16
10	200	100			
12	200	100			
14	200	100			
15	200	100			
16	200	100	100		
18	200	100			
20	200	100	100	50	
22	200	100			
25	200	100	100	50	
30	200	100	50	50	40
35	* 200	100	50	50	40
40	* 200	* 100	50	50	30
45	* 200	* 100	* 50	50	30
50	* 200	* 100	* 50	40	30
55		* 50	* 50	* 40	25
60		* 50	* 50	* 30	25
65		* 50	* 50	* 30	* 25
70			* 40	* 30	* 20
75			* 40	* 30	* 20
80			* 40	* 30	* 20
90				* 25	* 15
100				* 25	* 15

How to order or inquire: R830-912-finish code diameter x length

Example: R830-912-DI 4x10

Finish codes: DI for DISGO Plated



**High Rustproof Plating**

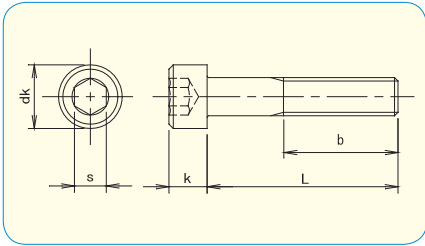


- No Hydrogen-Embrittlement.
- No Cr. contained.
- Special plating for High tensile Fasteners. (class 8.8 / 10.9 / 12.9)

\* ... Half thread



# HEX SOCKET CAP SCREW ISO 4762 / JIS B1176 / DIN 912



● **Material**  
YUS-550



How to order or inquire: R830-DIN 912-material code diameter x length  
 Example: R830-DIN 912-YU 4x16  
 Material codes: YU for YUS-550

	M2	M2.5	M3	M4	M5	M6	M8	M10	M12	M16
dk	3.8	4.5	5.5	7	8.5	10	13	16	18	24
k	2	2.5	3	4	5	6	8	10	12	16
s	1.5	2	2.5	3	4	5	6	8	10	14

		pcs / Box								
L \ d	M2	M2.5	M3	M4	M5	M6	M8	M10	M12	M16
3	2000									
4	2000	2000								
5	2000	2000	2000							
6	2000	2000	2000	1000						
8	2000	2000	2000	1000	500					
10	2000	2000	1000	1000	500	200				
12	2000	2000	1000	500	200	200	200			
15	2000	2000	1000	500	200	200	200	100		
16			1000	500	200					
20		2000	1000	500	200	200	200	100		
25			* 1000	500	200	200	100	100		
30			* 1000	* 500	200	200	100	100	100	
35				* 500	* 200	* 100	100	100		
40				* 500	* 200	* 100	100	100	100	50
45					* 100	* 100	* 100	* 100		
50					* 100	* 100	* 100	* 100	50	
60									* 50	25
65										* 25
70									* 50	

\* ... Half thread

**HIGH STRENGTH**  
 YUS-550 has enough hardness to the core, the thread is able not to be transformed and gain high fastening.

**HIGH TOUGHNESS**  
 Generally, stainless which has high tensile strength or hardness doesn't have toughness. But YUS-550 has high toughness with keeping these performance.

**HIGH RUSTPROOF**  
 YUS-550 has rustproof more than the equal to SUS XM7 / SUS 304.