

Solid Disk Handwheels / Adjusting Collars

Spoked Handwheels - Retractable Handle / No Handle

Solid Disk Handwheels RoHS 10

Shaft Bore Config.	Type	Hub	Handwheel	Handle Mounting Hole	Handle	Handle Thread	
	Stationary Handles	Folding Handle	Material	Surface Treatment	Material	Material	Surface Treatment
No Hole	PHSN	PHSFN	EN-JL 1030 Equiv.	Black Oxide	Phenol	Brass	
	AHSN	AHSFN	EN-AC-51300 Equiv.	-	EN-AC-51300 Equiv.	EN-AC-51300 Equiv.	
H9 Hole + Tap	PHSM	PHSFM	EN-JL 1030 Equiv.	Black Oxide	Phenol	Brass	Phenol EN 1.0711 Equiv. Trivalent Chromate
	AHSM	AHSFM	EN-AC-51300 Equiv.	-	EN-AC-51300 Equiv.	EN-AC-51300 Equiv.	
H9 Hole + Keyway + Tap	PHSK	PHSKF	EN-JL 1030 Equiv.	Black Oxide	Phenol	Brass	Phenol EN 1.0711 Equiv. Trivalent Chromate
	AHSK	AHSKF	EN-AC-51300 Equiv.	-	EN-AC-51300 Equiv.	EN-AC-51300 Equiv.	

ϕ d is a through hole.

Stationary Handles are GRW on **P.1151**.
 Folding Handles are GRMBM on **P.1151**.
 Both Stationary Handles and Folding Handles make rotation.

Part Number	PHSM, PHSFM, PHSK, PHSKF		AHSM, AHSFM, AHSK, AHSKF		H	A	F	D1	D2	h	L	d1	h1	M	P	Reference Mass (g)									
	Type	D	d Selection	M1 (Coarse)												d	b	t	PHS	PHSF	AHS	AHSF	PHS	AHS	PHSF
(Phenol)		80	10	5	10	3	1.4	35	13	15	28	36	14	30	22	8	34	181	201	200	220				
PHSN	PHSFN	100	12	5	12	4	1.8	40	15	17	32	39	15	36	28.5	12	41	20	19	40	55	277	324	296	343
PHSM	PHSFM	125	12, 16		15	5	2.3	44	19	19	39	46	15	38	28.5	12	52	23	22	67	104	405	468	428	491
PHSK	PHSKF	150	15, 20		16	5	2.3	48	18	21	39	48	15	43	28.5	12	64	23	22	67	104	570	729	618	777
(Aluminum)				6																					
AHSN	AHSFN	*175	16, 20	6	15	5	2.3	53	19	24	56	15	30	14	10	74	23	22	67	104	859	-	907	-	
AHSM	AHSFM	*200	16, 20		16	5	2.3	57	21	27	48	61	15	43	28.5	12	86	24	22	75	104	1017	-	1062	-
AHSK	AHSKF																								

* D175 and D200 are not available for Aluminum Type.

Ordering Example: Part Number - d
 PHSN80 - 12

D	Unit Price											
	PHSN	PHSFN	PHSM	PHSFM	PHSK	PHSKF	AHSN	AHSFN	AHSM	AHSFM	AHSK	AHSKF
80												
100												
125												
150												
175												
200												

New JIS (B1301) Keyway Dimensions

dH9	W	bJS9	t ^{0.1}	
10	+0.036 0	11.4	3 ±0.0125	1.4
12	+0.043 0	13.8	4 ±0.0150	1.8
15	+0.043 0	17.3	5 ±0.0150	2.3
16		18.3		

Adjusting Collars RoHS 10

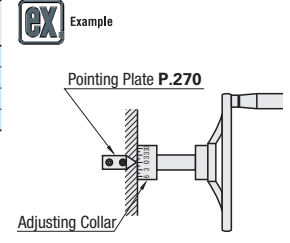
Type	Material	Surface Treatment
Right-hand / Left-hand	EN AW-5056 Equiv.	Black Anodize

Right-hand (SCOR) Left-hand (SCOL)

Angle selection 10° is shown in the diagram.

Part Number	D	Angle Selection	d	M	Mass (g)	Unit Price
SCOL (Left)	22	10 15	8	M4	20	
SCOR (Right)	27		12	M4	25	
	35		15	M5	40	
	45		16	M5	72	

Ordering Example: Part Number - Angle
 SCOR35 - 10



Spoked Handwheels - Retractable Handle RoHS 10

Type	Handwheel	Hub	Handle	Handle Thread	Included Screw	
	Material	Surface Treatment	Material	Surface Treatment	Material	Surface Treatment
PHSLN	Phenol	-	EN 1.0038 Equiv.	Black Oxide	Phenol	EN 1.0038 Equiv.
AHSLN	EN-JS 1050 Equiv.	Chrome Plating	EN-JS 1050 Equiv.	Chrome Plating	Phenol	EN 1.0038 Equiv.

Hex Socket Head Cap Screw

Handles are GRMLM on **P.1152**.

Part Number	Type	D	H	A	d	L		h	M (Coarse)	P		B	G	Mass (g)		Unit Price	
						PHSLN	AHSLN			PHSLN	AHSLN			PHSLN	AHSLN	PHSLN	AHSLN
PHSLN		80	34.2	20	20.5	16.5	16.5	10	5	30	29	18	42	161	410		
(Phenol Resin)		100	37.5	20	25.2	18.5	18.5	12.2	5	39	38	18	42	214	640		
AHSLN		125	48	25.5	32	26	26	15.7	6	50.5	48.5	23	67.5	473	1250		
(EN-JS 1050 Equiv.)		140	50.5	25.5	36	29	28.5	17.5	6	54	54	23	67.5	524	1670		
		160	56.9	28.5	40.5	33	33	19.9	8	62.7	62.7	26	82.5	757	2500		

Spoked Handwheels - No Handle RoHS 10

Type	Handwheel	
	Material	Surface Treatment
AHNF	EN-JL 1030 Equiv.	Chrome Plating

Handles are sold separately.

Part Number	Type	D	H	A	d	M	P	Reference Mass (g)	Unit Price	Applicable Handle
AHNF		80	24	14	25	5	26.5	386		GRMK13
		100	25	15	30	5	37	618		
		125	29	16	35	6	48	985		GRMK16
		140	30	17	35	6	55	1287		
		160	33	18	38	8	62.5	1735		GRMK20
		180	35	20	40	10	71.5	2313		
	200	37	22	40	10	78.5	3511		GRMK25	

Ordering Example: Part Number
 PHSLN80
 AHSLN100
 AHNF140

Alterations: Part Number - (HC, KC, SC)
 PHSLN125 - SC10
 AHSLN160 - KC20
 AHNF140 - HC10

No alterations are available to handles with D=180 or 200 in AHNF.
 No KC alteration is available to the handle with D=80 in PHSLN.

Alterations	H8 Hole + Tapped Hole Machining	H8 Hole + Keyway + Tapped Hole Machining	Square Bore Machining																																																																																										
	HC	KC	SC																																																																																										
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Spec.	Adds an H8 hole at hub center, and two tapped setscrew holes. HC=1mm Increment [Ordering Code] HC16	Adds an H8 hole at hub center, a key groove and its tapped hole. KC=1mm Increment [Ordering Code] KC15	Adds a square bore at hub center. SC=1mm Increment [Ordering Code] SC12																																																																																										
	<table border="1"> <thead> <tr> <th>D</th> <th>HC(H8)</th> <th>h</th> <th>HC(H8) M (Coarse)</th> </tr> </thead> <tbody> <tr><td>80</td><td>6-10</td><td>6</td><td>6-9</td></tr> <tr><td>100</td><td>6-13</td><td>7</td><td>10-16</td></tr> <tr><td>125</td><td>6-14</td><td>7</td><td>17-19</td></tr> <tr><td>140</td><td>6-22</td><td>8</td><td>20-23</td></tr> <tr><td>160</td><td>6-23</td><td>8</td><td></td></tr> </tbody> </table>	D	HC(H8)	h	HC(H8) M (Coarse)	80	6-10	6	6-9	100	6-13	7	10-16	125	6-14	7	17-19	140	6-22	8	20-23	160	6-23	8		<table border="1"> <thead> <tr> <th>D</th> <th>KC(H8)</th> <th>M</th> <th>h</th> <th>KC(H8) b</th> <th>Tolerance</th> <th>t</th> </tr> </thead> <tbody> <tr><td>80</td><td>10</td><td>5</td><td>6</td><td>8-10</td><td>3 ±0.0125</td><td>1.4</td></tr> <tr><td>100</td><td>10</td><td>5</td><td>7</td><td>8-10</td><td>3 ±0.0125</td><td>1.4</td></tr> <tr><td>125</td><td>10-12</td><td>5</td><td>7</td><td>11-12</td><td>4 ±0.015</td><td>1.8</td></tr> <tr><td>140</td><td>10-17</td><td>5</td><td>8</td><td>13-17</td><td>5 ±0.015</td><td>2.3</td></tr> <tr><td>160</td><td>10-20</td><td>6</td><td>8</td><td>18-20</td><td>6 ±0.015</td><td>2.8</td></tr> </tbody> </table>	D	KC(H8)	M	h	KC(H8) b	Tolerance	t	80	10	5	6	8-10	3 ±0.0125	1.4	100	10	5	7	8-10	3 ±0.0125	1.4	125	10-12	5	7	11-12	4 ±0.015	1.8	140	10-17	5	8	13-17	5 ±0.015	2.3	160	10-20	6	8	18-20	6 ±0.015	2.8	<table border="1"> <thead> <tr> <th>D</th> <th>SC</th> <th>SC</th> <th>Tolerance</th> </tr> </thead> <tbody> <tr><td>80</td><td>10</td><td>10-14</td><td>+0.1</td></tr> <tr><td>100</td><td>10</td><td>15-16</td><td>+0.3</td></tr> <tr><td>125</td><td>10</td><td></td><td></td></tr> <tr><td>140</td><td>10-12</td><td></td><td></td></tr> <tr><td>160</td><td>10-14</td><td></td><td></td></tr> </tbody> </table>	D	SC	SC	Tolerance	80	10	10-14	+0.1	100	10	15-16	+0.3	125	10			140	10-12			160	10-14		
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No satin nickel chrome plating alteration is available to PHSLN80.