



View X-X

Unit: mm

Ball screw specifications		
Shaft dia. x Lead / Direction of turn	40 x 8 / Right	
Preload / Ball recirculation	Z preload / Return tube	
Ball dia. / Ball circle dia.	4.762 / 40.5	
Effective turns of balls	2.5 x 2	
Accuracy grade / Preload	C5 / Z	
Basic load rating (N)	Dynamic $C_a$	34900
	Static $C_{0a}$	103000
Preload (N)	2450	
Dynamic friction torque, median, (N·cm)	64.0	
Spacer ball	None	
Factory packed grease	<b>Refer to Remarks 2.</b>	
Internal spatial volume of nut (cm <sup>3</sup> )	27	

Ball screw No.	Stroke		Screw shaft length		
	Nominal	Maximum ( $L_1$ -Nut length)	$L_1$	$L_2$	$L_3$
<b>W4003SA-2Z-C5Z8</b>	200	250	380	400	572
<b>W4005SA-2Z-C5Z8</b>	400	450	580	600	772
<b>W4007SA-2Z-C5Z8</b>	600	650	780	800	1039
<b>W4009SA-2Z-C5Z8</b>	800	850	980	1000	1239
<b>W4011SA-2Z-C5Z8</b>	1000	1050	1180	1200	1439
<b>W4015SA-2Z-C5Z8</b>	1400	1450	1580	1600	1839

- Remarks
1. We recommend NSK support unit round type WBK30DF-31.
  2. **Only rust preventive agent is applied at time of delivery. Please apply lubricant (oil or grease) before use.**
  3. Permissible rotational speed is determined by a  $d \cdot n$  value and a critical speed. See page B509.  
Root diameter of screw shaft (dr) is 35.5 mm.

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Left side shaft end	Lead accuracy			Shaft run-out **	Mass (Kg)	Permissible rotational speed N (min <sup>-1</sup> )	
	$T$	$e_p$	$v_u$			Supporting condition	
	Fixed - Simple support		Fixed - Fixed				
<b>II</b>	-0.009	0.025	0.020	0.035	7.4	1750	—
<b>II</b>	-0.014	0.030	0.023	0.040	9.2	1750	—
<b>I</b>	-0.019	0.035	0.025	0.065	11.3	1750	1750
<b>I</b>	-0.024	0.040	0.027	0.065	13.1	1750	1750
<b>I</b>	-0.028	0.046	0.030	0.080	14.9	1750	1750
<b>I</b>	-0.038	0.054	0.035	0.100	18.5	1750	1750