

Capability of Measurement Cg , Cgk

PART Name :	BOBBIN WITH PIN	Instrument Name:	micrometer	Calibration Uncertainty	0.0002	Date :
PART NO. :		Serial Number:	25648	Room Temperature	20.2 °C	
Characteristic		Resolution:	0.001	Room Humidity	50%	

Reference value	6.00200	Unit	mm	LSL	5.9700	SL	6.0000	USL	6.0300
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n	xi	n	xi	n	xi	n	xi	n	xi
1	6.0010	11	6.0010	21	6.0020	31	6.0000	41	6.0000
2	6.0020	12	6.0000	22	6.0000	32	6.0010	42	6.0010
3	6.0010	13	6.0010	23	5.9990	33	6.0010	43	6.0020
4	6.0010	14	6.0020	24	6.0020	34	6.0020	44	6.0010
5	6.0020	15	6.0020	25	6.0020	35	6.0010	45	6.0020
6	6.0010	16	6.0020	26	6.0010	36	6.0010	46	6.0020
7	6.0010	17	6.0020	27	6.0010	37	6.0000	47	6.0010
8	6.0000	18	6.0020	28	6.0000	38	6.0000	48	6.0020
9	5.9990	19	6.0020	29	5.9990	39	5.9990	49	6.0010
10	6.0010	20	6.0000	30	5.9990	40	5.9990	50	6.0010

Drawing Values			Collected Values			Statistics		
$Xm + 0.1 * T$	=	6.00800	$Xmax\ g$	=	6.0020	$Xbar\ g + 3 * sg$	=	6.00388
Xm	=	6.00200	$ Bias $	=	0.001100	$Xbar\ g$	=	6.00090
$Xm - 0.1 * T$	=	5.99600	$Xmin\ g$	=	5.9990	$Xbar\ g - 3 * sg$	=	5.99792
$0.2 * T$	=	0.01200	Rg	=	0.0030	$6\ sg$	=	0.00597
T	=	0.06000	$nges$	=	50	sg	=	0.00099488
K default	=	20						

Test for Bias = 0

t-score	7.8182	P-value For t-score	0.000000000363
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Value

$Cg \geq$	1.33
$Cgk \geq$	1.33
$\%RE \leq$	5
[]	[]
[X]	[X]

Test result: significant (Alpha ≤ 0.1%)

Minimum reference for capable measurement

ค่าอ้างอิงขั้นต่ำสำหรับระบบการวัดที่มีความสามารถ

$T_{min}(Cg) = 0.039695907$ mm

$T_{min}(Cgk) = 0.050695907$ mm

$T_{min}(RE) = 0.02$ mm

HO P-Value > Alpha 0.05
HI P-Value < Alpha 0.05

