

## APPENDIX 2

### Appendix 2: Calibration uncertainties in instruments

Manufacturers of scientific measuring instruments know that it is important to state how precisely the scale on the instrument has been calibrated. This table gives typical maximum values for the calibration uncertainties of several common laboratory instruments. The actual calibration uncertainties in particular instruments can be expected to be somewhat less than these.

Wooden metre stick	0.5 mm		
Steel rule	0.1 mm		
Vernier callipers	0.01 mm		
Micrometer	0.002 mm		
Standard masses (chemical balance)	5 mg		
Hg-in-glass thermometer (0°–100°C)	0.5 celsius degree		
Electrical meters			
Analogue	2% of full-scale-deflection		
Digital (3% digit)*	0.5% of reading + 1 digit		
Audio oscillator	5% of full-scale frequency		
Decade resistance box	1% or 0.1% of value		
Resistors	Brown band or code letter	F	1% of value
and	Red	G	2%
Capacitors	Gold	J	5%
	Silver	K	10%
	no	M	20%

\* A 4-digit instrument in which the left-hand digit reads 0 or 1 only. Hence the largest figure that can be displayed is 1999.