

MEGGITT CITEC  
POTENTIOMETERS,  
INDUCTORS,  
SURFACE MOUNT DEVICES  
SWITCHES, NETWORKS  
ENCODERS, SENSORS

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## Spindle Operated Potentiometers

### TYPE 23 SERIES

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A popular range of 20mm control potentiometers, the type 23 series can be tailored to suit more specific requirements. The potentiometers are available with printed carbon resistance element, choice of bush lengths in metal or plastic and insulated shafts up to 50mm in length. In addition BS approved mains and low current switches are available as standard options.

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#### MEGGITT CITEC KEY FEATURES

- **VERSATILE DESIGN CAN BE CUSTOMISED TO SUIT YOUR REQUIREMENTS**
  - **0.4 WATT AT 40°C**
  - **DIE CAST METAL BUSH AVAILABLE**
  - **INSULATED BUSH AVAILABLE**
  - **INSULATED SHAFTS UP TO 50mm**
  - **EYELET OR PC TERMINATIONS**
  - **RUGGED CONSTRUCTION**
  - **MOUNTING BRACKET**
  - **AUDIO LAWS AVAILABLE**
  - **DUAL GANG AND DUAL CONCENTRIC STYLES**
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**ELECTRICAL**

Resistance Range ( Law ):	1K to 1M (Linear) 4K7 to 470K (Non Linear)
Resistance Values:	1, 2.2 and 4.7 per decade
Resistance Tolerance:	± 20% (± 10% by selection)
Rated Dissipation at 40°C:	0.4W (Linear), 0.2W (Non Linear)
Limiting Element Voltage:	500V DC or AC RMS
Electrical Rotation:	267° without switch, 232° with switch
Terminal Resistance:	5 Ohms maximum
Noise (ENR):	2% maximum (Linear), 3% maximum (Non Linear)
Insulation Resistance:	4G minimum
Voltage Proof:	1000 V AC peak

**RESISTANCE LAWS**

- A. - Linear
- B. - Log
- C. - Inverse Log



**MECHANICAL**

Operating Torque:	15 mNm maximum
Mechanical Rotation:	300°
End Stop Torque:	800 mNm maximum

**ENVIRONMENTAL**

Limits of Resistance Change:	15% (After 1000 hours endurance)
Temperature characteristics of resistance:	5% ( -55°C to 125°C )
Bump Severity:	390m/s <sup>2</sup> , 4000 Bumps
Vibration Severity:	10 - 500 Hz, 0.75mm or 98m/s <sup>2</sup>
Climatic Catagory:	8 days @ 36°C 82% RH ΔR < 15%
Mechanical Endurance:	15000 Operations (minimum)

**DIY DESIGN**

The 23 Series can be customised to suit your individual requirements with features such as detent action, track centre tap etc. Please call our technical sales team to discuss variations on these 20mm diameter devices.

DIMENSIONS



23	E	X	A	104	M	L	B	22	A
POTENTIOMETER TYPE	CUSTOMER IDENTITY			RESISTANCE VALUE	BUSH DETAILS			SHAFT LENGTH	
23 - Std Spindle Style	S - Standard X - Customer Special See drawing (provide copy with order) D - Special Cut and Mtd track			The first two digits are significant figures of resistance value and the third denotes the number of zeros following	L - Diecast M10 x 9mm no location lug 6mm Hole W - Diecast M10 x 9mm with locator 6 mm hole Y - Diecast M10 x 9mm no locator 4mm hole M - Diecast 3/8" x 8mm with location lug 6.35mm hole K - Diecast 3/8" x 8mm no locator 6.35mm hole P - Diecast M7 x 6mm no locator 4mm hole S - Insulated M10 x 7mm 6mm Hole T - Insulated M10 x 10mm 6mm Hole U - No Bush F - Diecast 3/8" x 12mm 6.35mm hole G - Diecast 3/8" x 8mm no locator 4mm hole			FMF in mm le 22mm	
24 - Standard 20mm with Mounting Bracket									
25 - No Bush Mounting Bracket terminations swept forward parallel to shaft									
26 - Pc terminations swept down to board for rear mounting									
27 - Dual gang style single shaft same value/tol on each section									
28 - Pc Terminations swept forward parallel to shaft									
29 - Dual Concentric style									
				100 k Ohms : 101 4.7 k Ohms : 472 22k Ohms : 223 100k Ohms : 104					
TERMINATION STYLE	RESISTANCE LAW	RESISTANCE TOLERANCE	SHAFT STYLE	SWITCH DETAILS					
E - Std Eyelet P - Std Pc 15mm MH R - Long Pc X - Extra long Pc S - Pc bent forward at 90°	A - Linear B - log C - Inv. Log	M - 20% K - 10%	A - PLAIN 6mm B - SLOTTED 6mm C - FLATTED 6mm 5mm A/F D - FLATTED 6mm deep flat 4mm A/F E - PLAIN 4mm F - FULL 6.35mm flat - special angle G - FLATTED 4mm H - PLAIN 6.35mm J - FLATTED 5.5mm L - FLATTED 6mm 4.6mm A/F M - FLATTED 6.35mm alloy	A - DPST - 4A/250 V Ac B - SPST - Eyelet termination C - DPDT - Changeover switch D - DPST - Eyelet terminations on rear 1A N - No Switch T - SPST PC terminals					

N.B. Where a potentiometer is rear mounting then the SHAFT LENGTH is measured from the PCB to the tip of the shaft whether or not it is fitted with a mounting bush.