

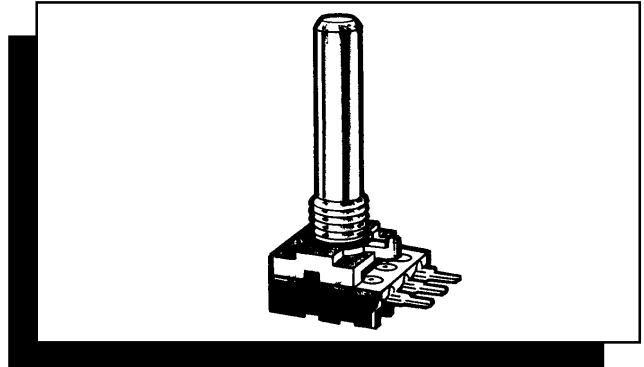
MEGGITT CITEC  
POTENTIOMETERS  
INDUCTORS,  
SURFACE MOUNT DEVICES  
SWITCHES, NETWORKS  
ENCODERS, SENSORS

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## Spindle Operated Potentiometers

### TYPE 51 SERIES

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The Type 51 Series from Meggitt Citec offers a small, high quality potentiometer system. You can choose a standalone module or a conventional bush potentiometer with shaft. Advanced carbon polymer element technology potentiometers with or without switches are available to meet your every requirements.

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### MEGGITT CITEC KEY FEATURES

- CHOICE OF SHAFTS AND EDGEWHEELS
  - SPST SWITCH STYLE
  - AVAILABLE IN DISTRIBUTION
  - AUTOMATIC MACHINE INSERTABLE MODULES
  - EYELET OR PC TERMINATIONS
  - LINEAR AND NON LINEAR LAWS
  - MULTI GANG VERSIONS AVAILABLE
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## SPECIFICATION

## TYPE 51 SERIES

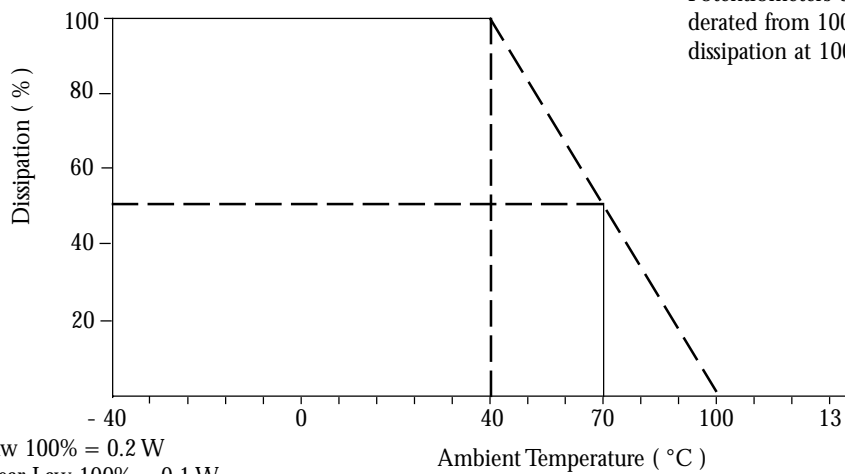
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### ELECTRICAL

Resistance Range:	
Linear Law:	470 Ohm to 4.7 Megohm
Log Law:	2.2K Ohm to 470K Ohm
Tolerance:	± 20% (tighter by selection)
Power Rating:	
Linear Law:	0.2 Watt @ 40°C
Log Law:	0.1 Watt @ 40°C
Operating Voltage:	
Linear Law:	350 VAC or 500 VDC Maximum
Log Law:	$\sqrt{P \text{ Maximum} \times R \text{ Nominal}}$
Load Life:	$\Delta R < 10\%$ after 1000 hours @ 70°C
Rotational Life:	$\Delta R < 10\%$ @ 15,000 Cycles
CRV (Linear Law):	$\Delta R < 1\%$
Isolation Voltage:	500 V dc
Insulation Resistance:	≥ 100 Megohm

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### DERATING CURVE



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### MECHANICAL

Angle of Rotation:	300° ± 2°
Rotational Torque:	10 mNm max.
Stop Strength:	400 mNm max.
Rotational Life:	25,000 Cycles

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### ENVIRONMENTAL

Storage Temperature:	- 40°C to 85°C
Operating Temperature:	- 25°C to 70°C
Humidity:	< 15% $\Delta R$ RH 75% @ 35°C
Temperature Coefficient:	± 500 PPM/°C @ -25 to 70°C
Climatic Category:	25/070/10

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### SWITCH

Contact Resistance:	< 20 Milliohm Initial
Rating:	3.5 Amp @ 14.4VDC
Contact Configuration:	SPST Off @ CCW E
On/Off Torque:	30 mNm Max.
Operational Angle:	30° Max.
Electrical Rotation:	50° to 295°

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### SOLDERING CONDITION

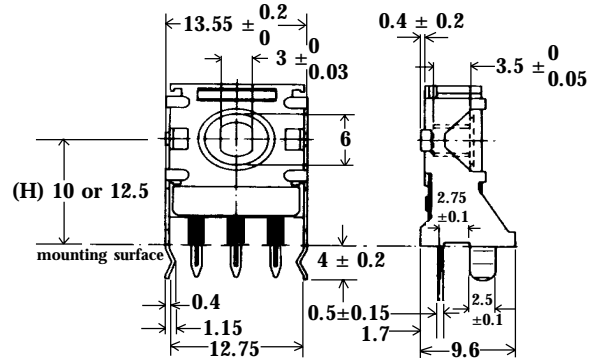
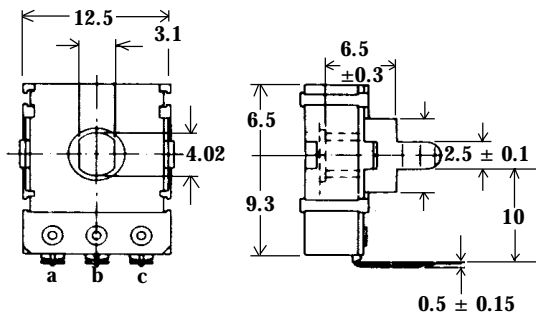
This product has been designed for flow solder. Take extreme care when hand soldering not to overheat the terminal by extended exposure to heat otherwise intermittent operation could result.

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TYPE 51 HORIZONTAL

SINGLE MODULE

TYPE 53 VERTICAL



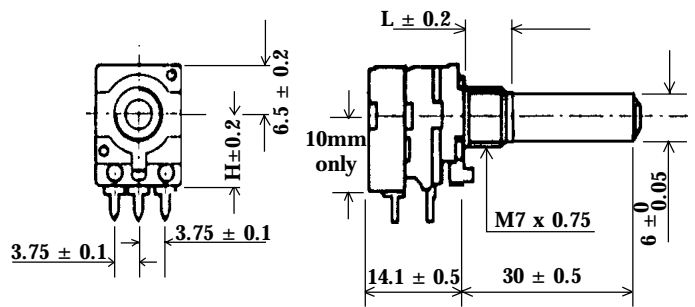
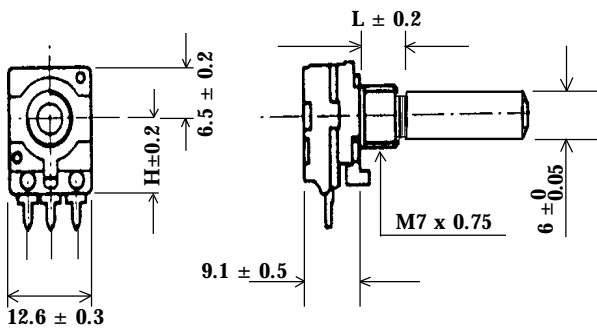
TYPE 54 NO SWITCH

POTENTIOMETER

TYPE 56 WITH SWITCH

H = 10mm or 12.5mm to choice

L = 5mm or 8mm to choice



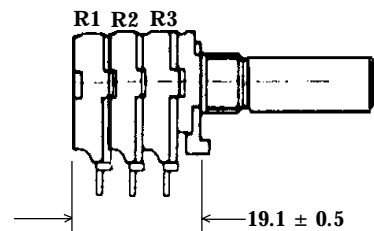
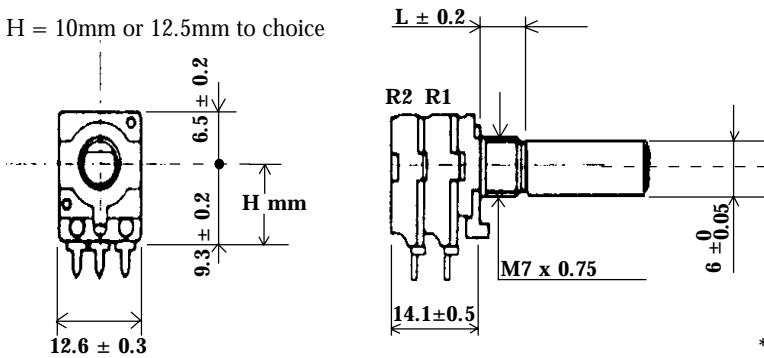
TYPE 55 DUAL SECTION

POTENTIOMETER

TYPE 61 TRIPLE SECTION

H = 10mm or 12.5mm to choice

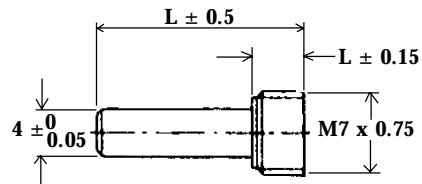
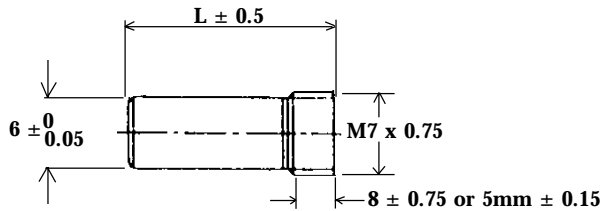
L = 5mm or 8mm to choice



\* Type 61 has the same general dimensions as Type 55 \*

SPINDLE OPTIONS

Potentiometers with Bush



L = We can offer any length up to 30mm, ( 20mm x 4mm shafts) with or without flats or slots in metal. Plastic plug-in shafts shown overleaf.

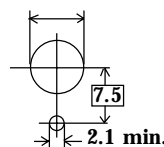
PANEL HOLE DATA

Potentiometers with Bushes

for single and dual gang potentiometers

required mounting holes in chassis

with mounting bush  
M7 X 0.75mm



fix potentiometer with mounting nut; supplied max. torque for tightening = 1 Nm; min. thickness of mounting plate = 1mm

# HOW TO ORDER - 51 SERIES POTENTIOMETERS

Please specify : Type No. e.g. 51  
Resistance Value e.g. 220k Ohms

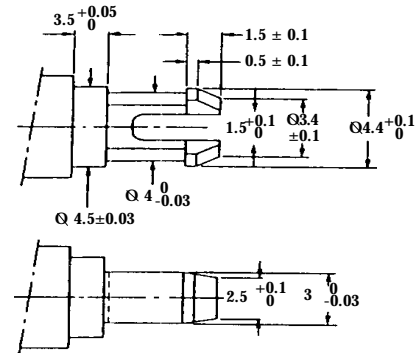
Spindle detail e.g. 6mm diameter x 30mm long  
Law e.g. Linear  
Switch detail e.g. SPST  
Accessories e.g. plug-in edgewise & size

**NOTE**

The 51 Series is ordered by description due to the very wide multiples and configuration available. We will sample to your description and if approved, our technical sales group will define a discrete part number to meet your requirements and for future ordering

**SNAP- IN SHAFTS AND EDGEWHEELS - For Standalone Modules**

The diagram illustrates the snap-in part of a plastic actuator which can be used to rotate the Series 51 Standalone module. Consult MEC Citec Sales Action Desk for details on our full custom knob and shaft capabilities. We will for example be pleased to quote for moulding your shaft and knob as a single snap-in component, subject to suitable volumes being available.



**ACCESSORY OPTIONS - For Standalone Modules**

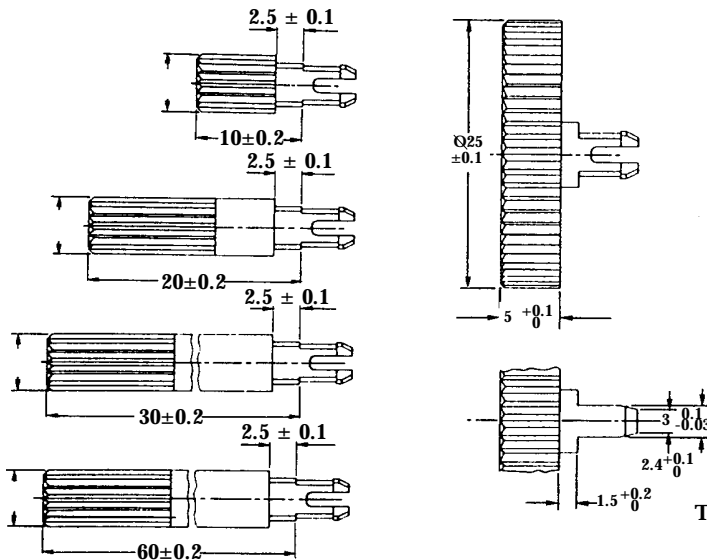
At the date of publication the following mould tools exist for plug in accessories

Shafts  
60 mm long x 6 mm diameter  
30 mm long x 6 mm diameter  
20 mm long x 6 mm diameter  
10 mm long x 6 mm diameter

with knurl end and screwdriver slot colour black  
with knurl end and screwdriver slot colour black  
with knurl end and screwdriver slot colour black  
with knurl end and screwdriver slot colour black

Edgewise for horizontal modules 25mm diameter

colour black.



**Thumbwheel Actuating Devices**



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