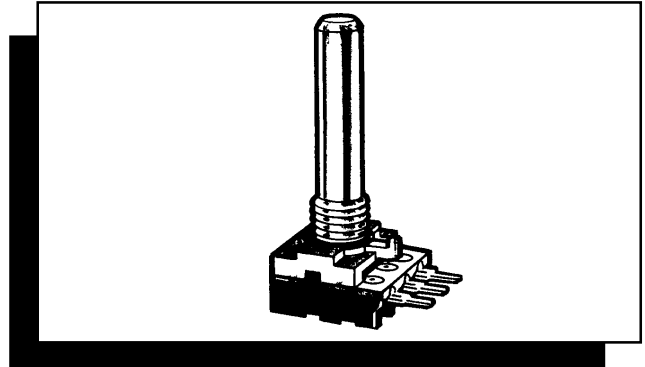


MEGGITT CITEC
POTENTIOMETERS
INDUCTORS,
SURFACE MOUNT DEVICES
SWITCHES, NETWORKS
ENCODERS, SENSORS

Spindle Operated Potentiometers

TYPE 51 SERIES



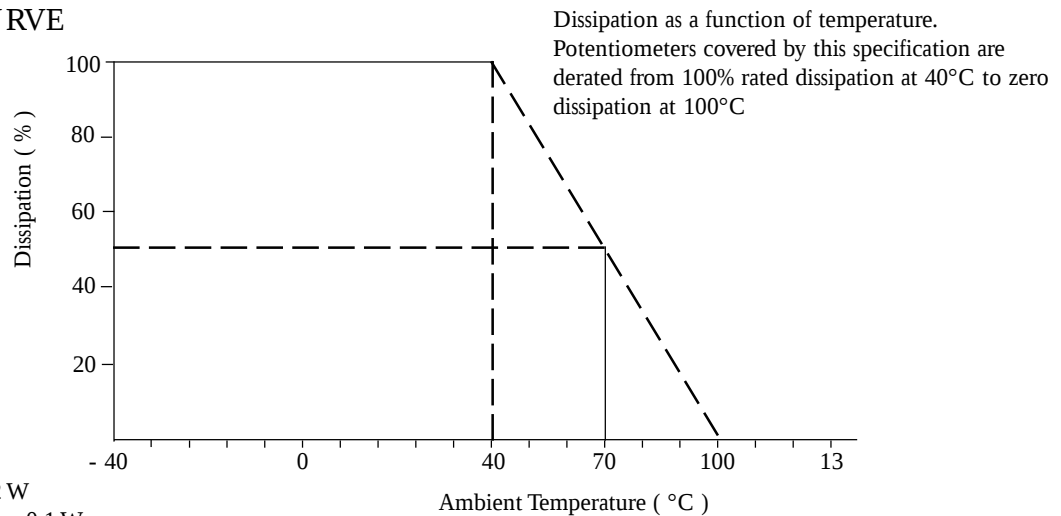
The Type 51 Series from Meggitt Citec offers a small, high quality potentiometer system. You can choose a standalone module or a conventional bush potentiometer with shaft. Advanced carbon polymer element technology potentiometers with or without switches are available to meet your every requirements.

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

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:	350VAC or 500VDC 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

DERATING CURVE**MECHANICAL**

Angle of Rotation:	300° ± 2°
Rotational Torque:	10 mNm maximum
Stop Strength:	400 mNm maximum
Rotational Life:	25,000 cycles

ENVIRONMENTAL

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

SWITCH

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

SOLDERING CONDITION

This product has been designed for flow solder only.

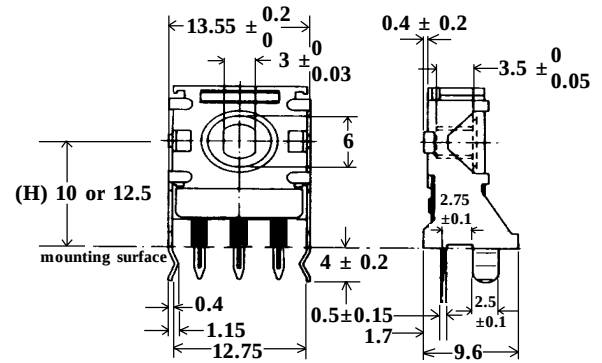
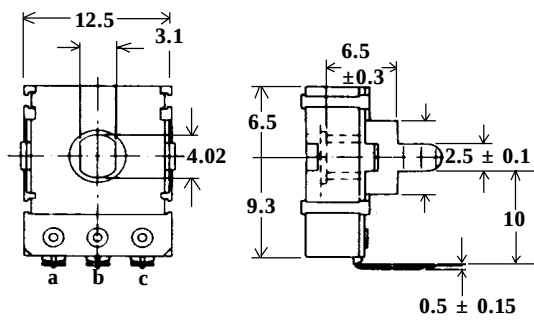
SOLDER BATH:	235°C +0°C/-5°C
IMMERSION TIME:	2 ±0.5 seconds
TEST CONDITIONS:	IEC 391-1 clause 6.22.3
TEST METHOD:	IEC 68-2

The Type 51 Series is designed for flow soldering only. If Hand Soldering is essential please take extreme care when applying solder. Do not overheat the terminal by prolonged exposure to heat otherwise intermittent operation could result.

TYPE 51 HORIZONTAL

SINGLE MODULE

TYPE 53 VERTICAL



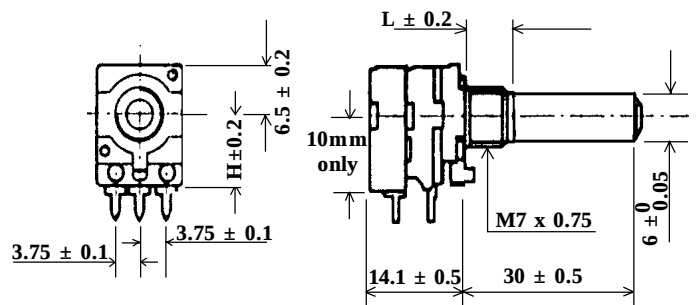
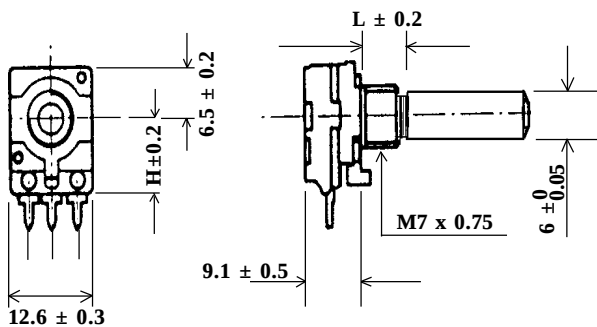
TYPE 54 NO SWITCH

POTENTIOMETER

TYPE 56 WITH SWITCH

H = 10mm or 12.5mm to choice

L = 5mm or 8mm to choice



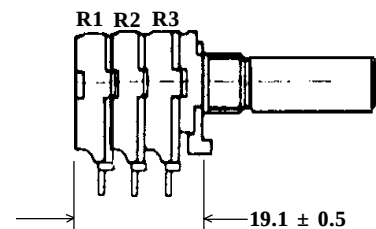
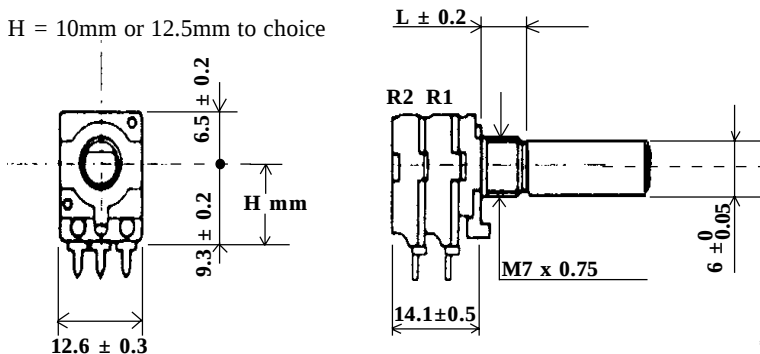
TYPE 55 DUAL SECTION

POTENTIOMETER

TYPE 61 TRIPLE SECTION

H = 10mm or 12.5mm to choice

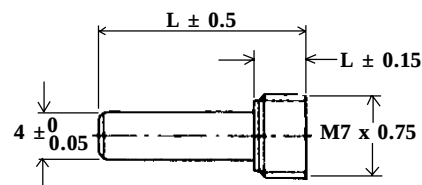
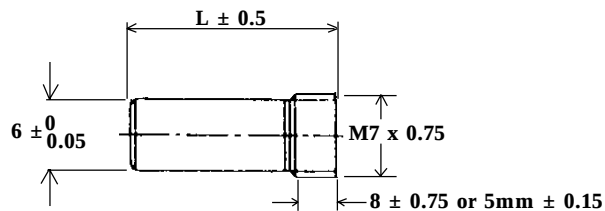
L = 5mm or 8mm to choice



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

SPINDLE OPTIONS

Potentiometers with Bush



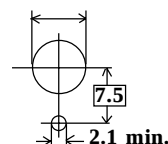
L = We can offer any length up to 30mm, (20mm x 4mm shafts) with or without flats or slots in metal. Plastic plug-in shafts shown overleaf.

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

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

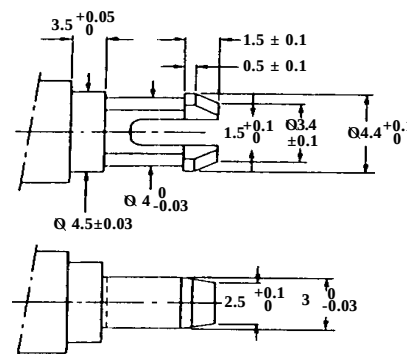
Spindle detail e.g. 6mm diameter x 30mm long
Law e.g. Linear
Switch detail e.g. SPST
Accessories e.g. plug-in edgewheel & size

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

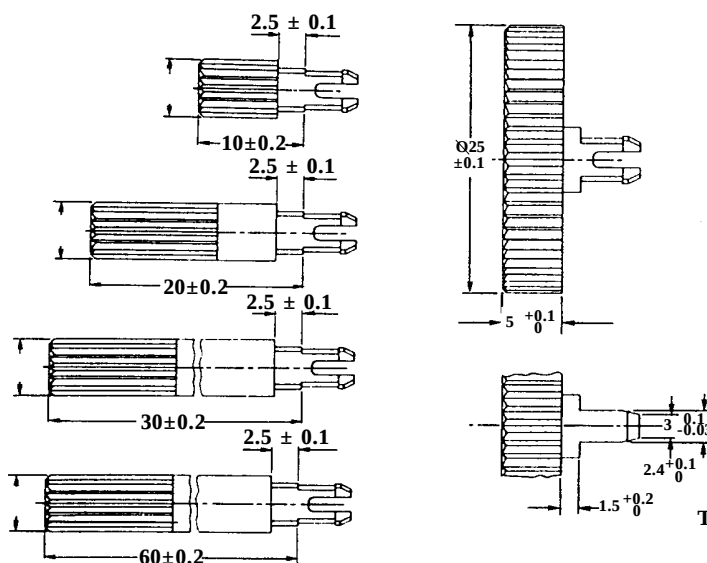
At the date of publication the following mould tools exist for plug in accessories

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

Edgewheel for horizontal modules 25mm diameter

colour black.



Thumbwheel Actuating Devices



Meggitt Electronic Components Ltd. Ohmic House, Westmead Industrial Estate, Swindon, Wilts. SN5 7US
Telephone: (01793) 487301 (Admin.) (01793) 611666 (Sales) Email: sales@megelec.co.uk Fax: (01793) 611777

This publication is issued to provide outline information only and (unless specifically agreed to the contrary by the Company in writing) is not to form part of any order or be regarded as a representation relating to the products or service concerned. We reserve the right to alter without notice the specification, design, price or conditions of supply of any product or service. Whilst Meggitt Electronic Components products are of the very highest quality and reliability, all electronic components can occasionally be subject to failure. Where failure of a Meggitt Electronic Components product could result in life threatening consequences, then the circuit and application must be discussed with the Company. Such areas might include ECG, respiratory, and other medical and nuclear applications and any non fail safe applications circuit.