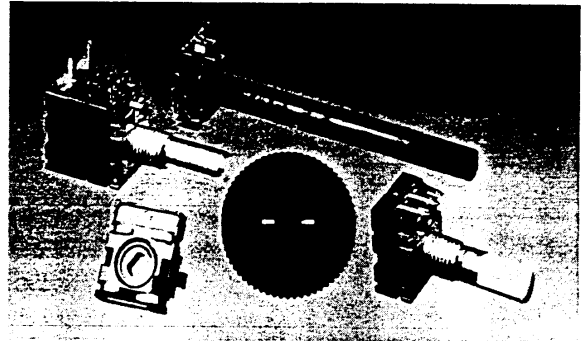


748-213 to 748-316

## MEC CITEC

**POTENTIOMETERS  
INDUCTORS, SMDs  
SWITCHES, NETWORKS  
ENCODERS  
— POWER COMPONENTS**

### Spindle Operated Potentiometers **TYPE 51 SERIES**



The type 51 Series from MEC Citec offers a small, high quality potentiometer system.

You can choose a standalone module or a conventional bushed potentiometer with shaft. Advanced carbon polymer element technology potentiometers with or without switches are available to meet your every requirements.

#### **MEC CITEC KEY FEATURES**

- FULLY AUTOMATED ASSEMBLY AND TEST
- CHOICE OF SHAFTS AND EDGEWHEELS
- SPST SWITCH STYLES
- AVAILABLE IN DISTRIBUTION
- AUTOMATIC MACHINE INSERTABLE MODULES
- LINEAR AND NON LINEAR LAWS
- ATTRACTIVELY PRICED

**M MEGGITT**  
ELECTRONICS

**SALES ACTION DESK**  
**(0793) 61 1666**

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## SPECIFICATION

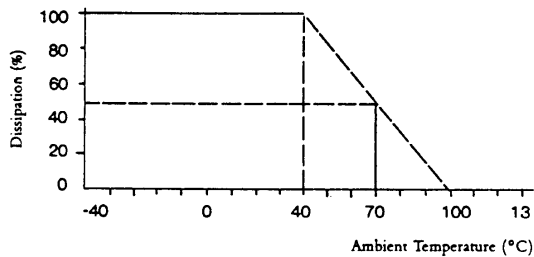
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### ELECTRICAL

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 Max.
Log Law:	$\sqrt{P \text{ Max.} \times R \text{ Nom.}}$
Load Life % Δ R:	< 10% after 1000 Hrs. @ 70°C
Rotational Life % Δ R:	< 10% @ 15,000 Cycles
CRV (Linear Law):	< 1%
Dielectric Strength:	500 VAC/50 HZ
Insulation Resistance:	> 100 Megohm

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### DERATING CURVE



Dissipation as a function of temperature.  
Potentiometers covered by this specification are derated from 100% rated dissipation at 40°C to zero dissipation at 100°C.

Linear Law 100% = 0.2W  
Non-Linear Law 100% = 0.1W

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### MECHANICAL

Angle of Rotation:	300° ±2°
Rotational Torque:	2.3 In. Oz Max.
Stop Strength:	3.5 In. Lbs.
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:	≤ 10% Δ R RH 75% @ 35°C
Temperature Coefficient:	± 500 PPM/°C @ -25 to 70°C

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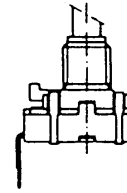
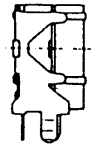
### SWITCH

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

STYLES AVAILABLE

TYPE 50 VERSION  
WITHOUT SPINDLE  
DUAL GANG VERTICAL MODE

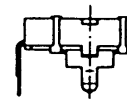
TYPE 57 VERSION  
SINGLE HORIZONTAL  
POTENTIOMETER



SINGLE MODULE

TYPE 53 VERSION  
VERTICAL

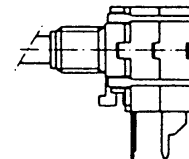
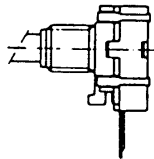
TYPE 51 VERSION  
HORIZONTAL



POTENTIOMETER

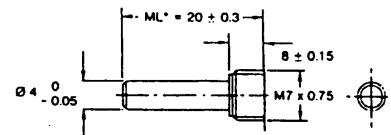
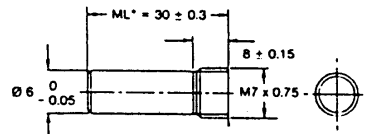
TYPE 54 VERSION  
SINGLE POTENTIOMETER

TYPE 56 VERSION  
POTENTIOMETER WITH  
SPST SWITCH



SPINDLE OPTIONS

Potentiometers with Bush



We can offer any length up to 30mm, with or without flats or slots in metal.  
Plastic plug in shafts are shown overleaf.

PANEL HOLE DATA

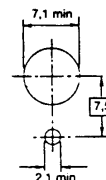
Potentiometers with Bushes

for single and dual gang  
potentiometers

required mounting holes  
in chassis

fixing of  
potentiometer

with mounting bush  
M7 x 0.75mm



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

# HOW TO ORDER - 51 SERIES POTENTIOMETERS

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

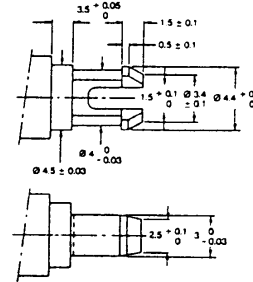
Spindle detail e.g. 6 mm diameter x 30 mm long  
Law e.g. Linear  
Switch detail e.g. SPST  
Accessories e.g. plug-in edgewheel & size.

## NOTE

The 51 Series is ordered by description due to the very wide multiples and configurations 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.



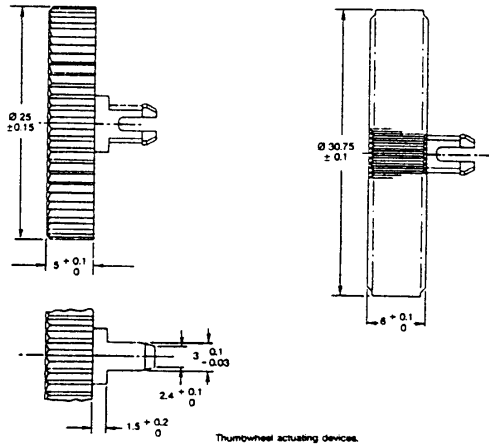
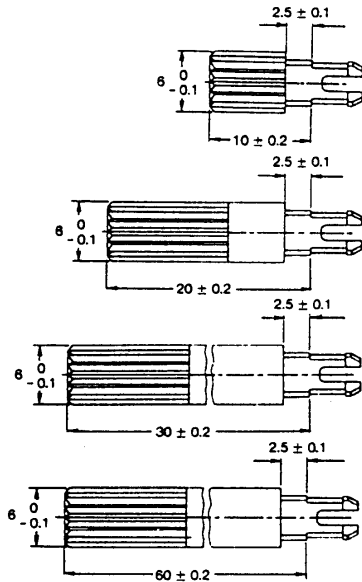
## ACCESSORY OPTIONS - For Standalone Modules

At the date of publication the following mould tools exist for standard plug-in accessories shaft.

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  
colour black (other colours by request)

Edgewheels for horizontal modules 25 mm diameter  
30 mm diameter



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