

# 9mm Rotary Encoder

## Type DP09 Series

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9mm Rotary incremental encoder for use in electronic equipment. Can be supplied with or without switch with customisation to standard options

#### Key Features

- 9mm Rotary Encoder
- Incremental Type
- Push on Switch Option
- Various Shaft Lengths
- Pulse Options
- Detent Options

### Characteristics - Electrical

<b>Pulses:</b>	12 & 15
<b>Contact Rating:</b>	10mA 5VDC
<b>Dielectric Strength:</b>	300VAC / 1mA, 1 minute
<b>Insulation Resistance (min):</b>	100M ohms at 250VAC
<b>Operating Speed (RPM):</b>	60 RPM
<b>Switch Power Rating (where fitted):</b>	12VDC, 0.5A
<b>Switch Contact Resistance:</b>	100m ohm
<b>Electrical Travel:</b>	Continuous
<b>Rotational Noise:</b>	t2 = 5.0ms max (see below)
<b>Chattering:</b>	t1 & t3 = 5.0 ms max (see below)



Code Off area V = 3.5V or more. Code on area V=1.5V or less

### Characteristics - Mechanical

<b>Total Mechanical Travel:</b>	Continuous
<b>Detents:</b>	0, 12, 24, 30
<b>Switch Operating Force:</b>	400 + 400/- 200 gf
<b>Switch Travel:</b>	1.5mm
<b>Shaft Type:</b>	F – Flatted, K – Knurled
<b>Shaft Length (from Mounting Surface):</b>	15, 20, 25, 30

### Characteristics - Environmental

<b>Operating Temperature</b>	-10 - +65 degrees C
<b>Rotational Life</b>	30,000 Cycles

### Output Signal Format

Shaft Rotational Direction	Signal	Format
Clockwise	A (Terminal A-C)	OFF ON
	B (Terminal B-C)	OFF ON
Anticlockwise	A (Terminal A-C)	OFF ON
	B (Terminal B-C)	OFF ON

### Dimensions DP09H-K



### DP09H-F



### DP09SH-K



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### Dimensions DP09SH-F



### Shaft Dimensions

Shaft	Dim.				
K	L	15	20	25	30
	T	7	12	12	14
F	L	15	20	25	30
	F	7	12	12	12
B	B	5	7	-	-

### How to Order

DP09	H	24	12	A	20	K
Common Part	Orientation	Detent	Pulses	Bush Details	Shaft Length	Shaft Style
DP09 – No Switch  DP09S – With Switch	H - Horizontal	N - None 12 – 12 clicks 24 – 24 clicks 30 – 30 clicks	12 – 12 Pulses 15 – 15 Pulses	A – M7 x 5mm B – M7 x 7mm (standard)	15 – 15mm FMF 20 – 20mm FMF 25 – 25mm FMF 30 – 30mm FMF	K - Knurled F - Flatted

# Mouser Electronics

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