

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

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

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

Characteristics - Environmental

Operating Temperature	-10 - +65 degrees C
Rotational Life	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



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

Authorized Distributor

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[TE Connectivity:](#)

[DP09SH3015A30F](#)