

12mm Rotary Encoder

Type DP12 Series

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12mm Rotary incremental encoder for use in electronic equipment. Can be supplied with or without switch with customisation to standard options.

Key Features

- 12mm Rotary Encoder
- Incremental Type
- Push on Switch Option
- Various Shaft Lengths
- Pulse Options
- Detent Options

Characteristics - Electrical

| | |
|--|----------------------------------|
| Pulses: | 12 & 24 |
| Contact Rating: | 0.5mA 5VDC |
| Dielectric Strength: | 300VAC / 1mA, 1 minute |
| Insulation Resistance (min): | 100M ohms at 250VAC |
| Operating Speed (RPM): | 60 RPM |
| Switch Power Rating (where fitted): | 5VDC, 10mA (1mA Min) |
| Switch Contact Resistance: | 100m ohm Max |
| Electrical Travel: | Continuous |
| Rotational Noise: | t2 = 2.0 ms max (see below) |
| Chattering: | t1 & t3 = 3.0 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 |
| Switch Operating Force: | 500+/- 100gf |
| Switch Travel: | 0.5mm |
| Shaft Type: | F – Flatted |
| Shaft Length (from Mounting Surface): | 17.5, 20, 22.5, 25 |

Characteristics - Environmental

| | |
|------------------------------|---------------------|
| Operating Temperature | -30 ~ +70 degrees C |
| Rotational Life | 15,000 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 DP12H



MOUNTING HOLES DETAIL
VIEWED FROM MOUNTING SIDE
P.C.B. t=1.6mm



DETAIL OF TERMINALS

DP12SH



MOUNTING HOLES DETAIL
VIEWED FROM MOUNTING SIDE
P.C.B. t=1.6mm



DETAIL OF TERMINALS

Dimensions DP12V



DP12SV



Shaft Length

| | | | | |
|---|------|----|------|----|
| L | 17.5 | 20 | 22.5 | 25 |
| F | 5 | 7 | 7 | 12 |

How to Order

| DP12 | H | N | 12 | A | 20 | F |
|---|--------------------------------|--|----------------------------------|---------------------------|--|-------------|
| Common Part | Orientation | Detent | Pulses | Bush Details | Shaft Length | Shaft Style |
| DP12 – No Switch DP12S – With Switch | H - Horizontal V - Vertical | N - None 12 – 12 clicks 24 – 24 Clicks | 12 – 12 Pulses 24 – 24 Pulses | A – 5mm V & H Standard | 17.5 – 17.5mm 20 – 20mm 22.5 – 22.5mm 25 – 25mm | F - Flatted |