Model EN12
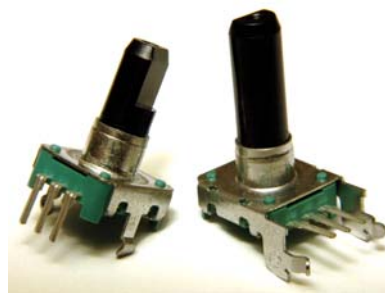## 12mm Rotary Encoder
2 Bits Gray Code
Incremental/Contacting Type
Metal Bushing/Plastic Shaft
Push-on Switch Option
RoHS Compliant

MODEL STYLES

Top Adjust, with Switch	EN12-HS
Top Adjust, without Switch	EN12-HN
Side Adjust, with Switch	EN12-VS
Side Adjust, without Switch	EN12-VN

ELECTRICAL[1]

Pulses (Per Revolution)	12 & 24
Closed Circuit Resistance, Ohms	3 Ohms, max.
Contact Rating	1mA/ 5Vdc
Operating Current, Maximum	1mA
Dielectric Strength	300Vac/ 1mA, I minute
Insulation Resistance, Minimum	100M ohms at 250Vdc/ 1mA
Sliding Noise (at 60 RPM)	2.0ms max.
Contact Bounce (at 15 RPM)	5.0ms max.
Operating Speed (RPM)	100 RPM max.
Switch Power Rating	10mA/ 5Vdc
Switch Contact Resistance	100 milliohms
Actual Electrical Travel, Nominal	Continuous

MECHANICAL

Total Mechanical Travel	Continuous
Detents (per Revolution)	0, 12, 24
Rotational Torque of Detent, Maximum	1.4 oz-in
Switch Operating Force	550 gf
Switch Travel	0.5mm

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[1] *Specifications subject to change without notice.*

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Model EN12

Rotational Life	30,000 cycles

ORDERING INFORMATION[2]

EN12 - VS 1 1 A F 20

Model Series

Style

Pulses:
1=12 Pulses
2=24 Pulses

Detents :
0 = No Detent
1= 12 Detents (for 12 pulses only)
2= 24 Detents (for 24 pulses only)

Bushing Length
A = 5mm

Flatted Shaft

Shaft Length "L" see below

Shaft Length Options

F—TYPE

L±0.5

T

$\phi 6.0^{+0}_{-0.1}$

4.5

L	18	20	23	25	30
T	5	7	7	12	12
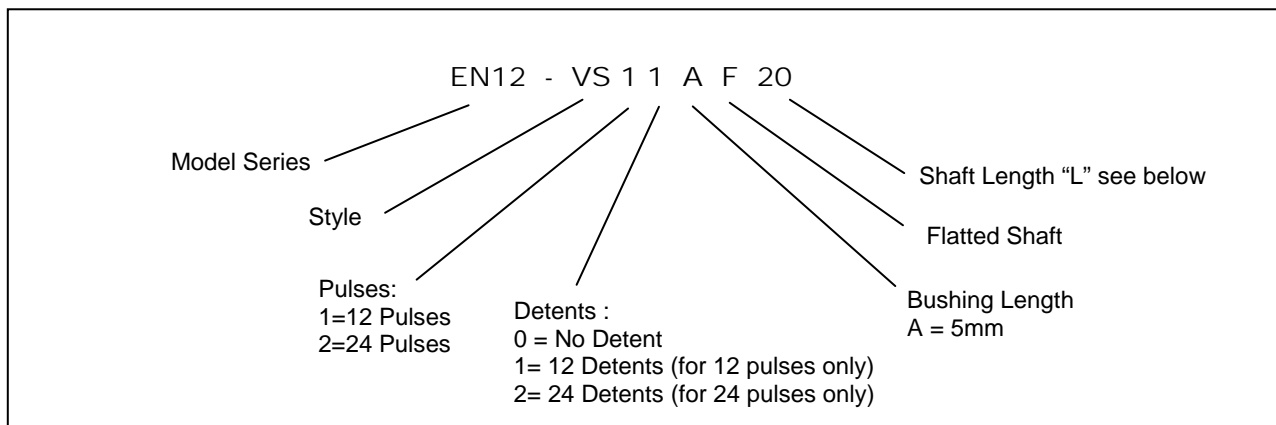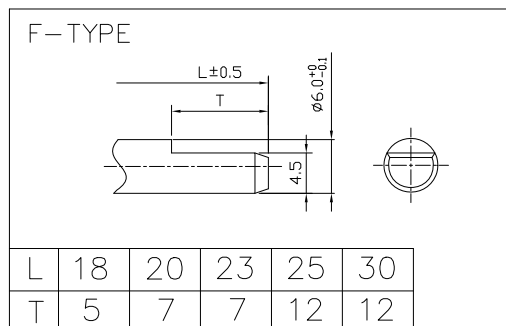
18 Length = 17.5mm
23 Length = 22.5mm

CIRCUIT DIAGRAM

CW

OFF

ON

A SIGNAL

B SIGNAL

DETENT   DETENT

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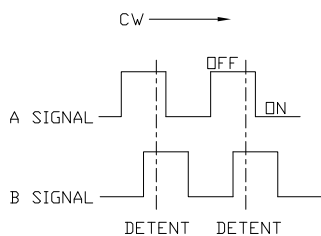
[2] *Contact our customer service for custom designs and features.*

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Model EN12

OUTLINE DRAWING

EN12-HS (Top Adjust, with Switch)

SWITCH SCHEMATIC

PCB LAYOUT
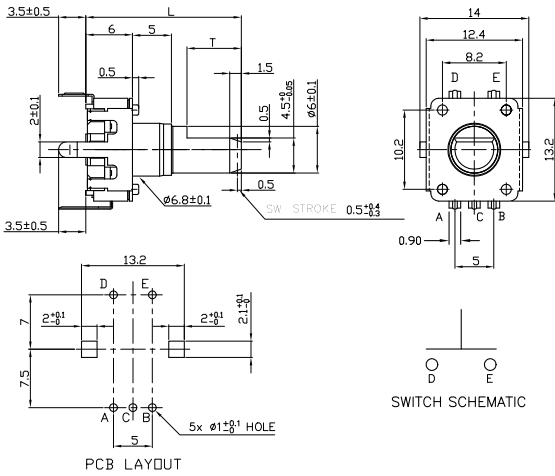
EN12-HN (Top Adjust, without Switch)

PCB LAYOUT

EN12-VS (Side Adjust, with Switch)

SWITCH SCHEMATIC

PCB LAYOUT
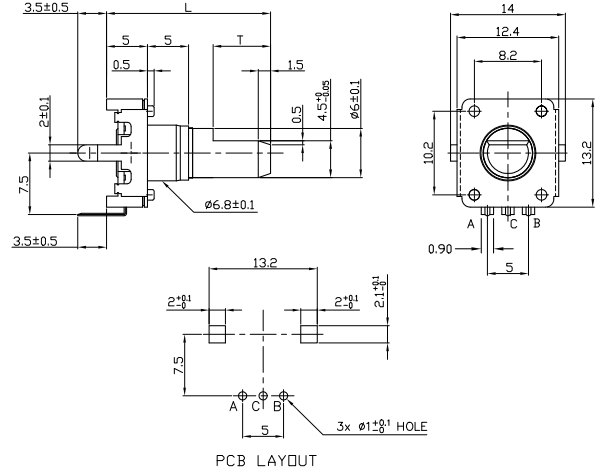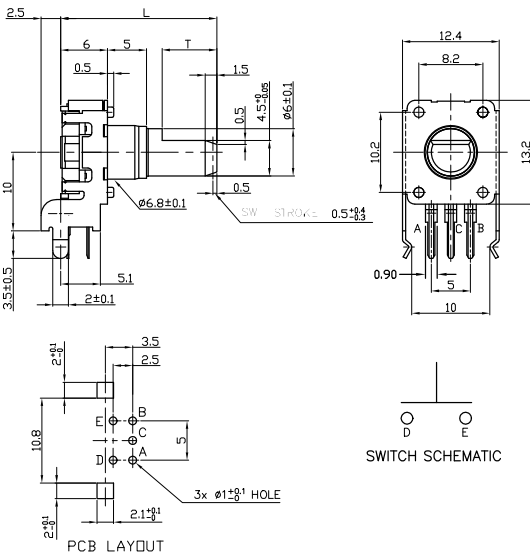
EN12-VN (Side Adjust, without Switch)

PCB LAYOUT

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