Rotary Encoder
Model EN11 Series

TT Electronics

Features:

- 11 mm rotary encoder
- 2 bits gray code
- Incremental/Contacting type
- Metal bushing/shaft
- Push-on switch option

Model Styles Available

Top adjust, with switch, threaded bushing	EN11-HSM
Top adjust, without switch, threaded bushing	EN11-HNM
Top adjust, with switch, plain bushing	EN11-HSB
Top adjust, without switch, plain bushing	EN11-HNB
Side adjust, with switch, threaded bushing	EN11-VSM
Side adjust, without switch, threaded bushing	EN11-VNM
Side adjust, with switch, plain bushing	EN11-VSB
Side adjust, without switch, plain bushing	EN11-VNB

Electrical

Pulses (per revolution)	15, 20
Encoder closed circuit resistance	3 Ohms, max.
Encoder contact rating	10mA/5Vdc
Operating current, maximum	10mA
Dielectric strength	300Vac/1mA, 1 minute
Insulation resistance, minimum	100M ohms at 250Vdc/ 1 mA
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 miliohms
Actual electrical travel, nominal	Continuous

Notes:
1. Specifications subject to change without notice
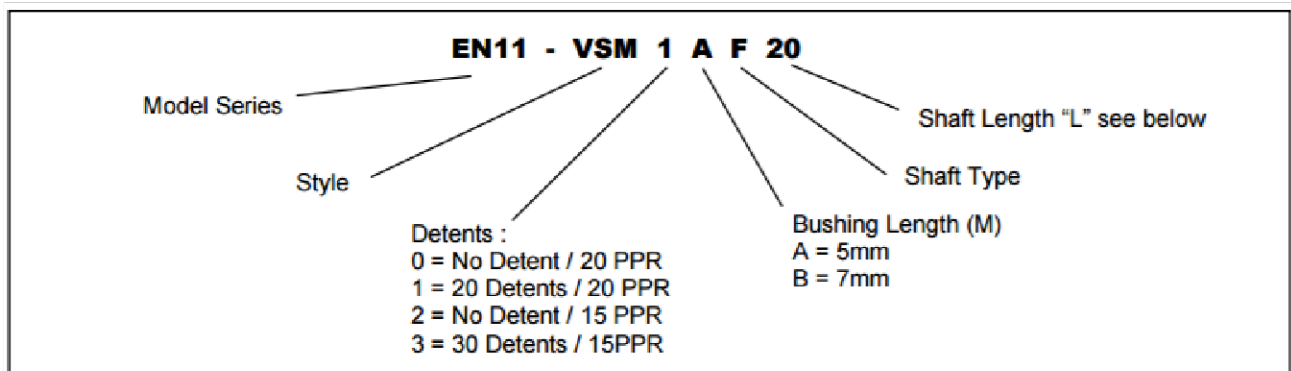
Mechanical

Total mechanical travel	Continuous
Detents (per revolution)	0, 20 and 30
Rotational torque of detent, maximum	2.5 oz-in
Switch operating force	550 gf
Switch travel	0.5mm

Environmental

Operating temperature range	-10°C to +70°C
Rotational life	30,000 cycles

Ordering Information

EN11 - VSM 1 A F 20

Model Series

Style

Detents :
0 = No Detent / 20 PPR
1 = 20 Detents / 20 PPR
2 = No Detent / 15 PPR
3 = 30 Detents / 15PPR

Bushing Length (M)
A = 5mm
B = 7mm

Shaft Type

Shaft Length "L" see below

Notes:
1. Contact our customer service for custom designs and features.

TT Electronics

Shaft Types

Q Type
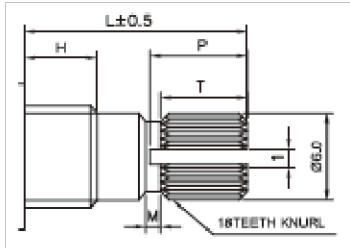
H = 5mm

L	15	20	25	30
P	7	7	11	14
T	6	6	10	12
M	2	2	2	4

H = 7mm

L	15	20	25	30
P	7	7	11	14
T	6	6	10	12
M	1	1	2	4

F Type
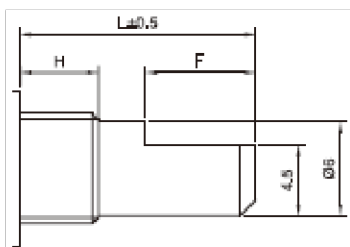
H = 5mm

L	15	20	25	30
F	7	10	12	12

H = 7mm

L	15	20	25	30
F	5	10	12	12

Circuit Diagram

For 20 PPR (B leads A)

For 15 PPR (A leads B)

![TT Electronics logo]

Outline Drawings

MODEL EN11-HSM
(Top Adjust, with Switch, Threaded Bushing)

MODEL EN11-HNM
(Top Adjust, without Switch, Threaded Bushing)

MODEL EN11-HSB
(Top Adjust, with Switch, Plain Bushing)

MODEL EN11-HNB
(Top Adjust, without Switch, Plain Bushing)

TT Electronics

Outline Drawings

MODEL EN11-VSM
(Side Adjust, with Switch, Threaded Bushing)

MODEL EN11-VNM
(Side Adjust, without Switch, Threaded Bushing)

MODEL EN11-VSB
(Side Adjust, with Switch, Plain Bushing)

MODEL EN11-VNB
(Side Adjust, without Switch, Plain Bushing)