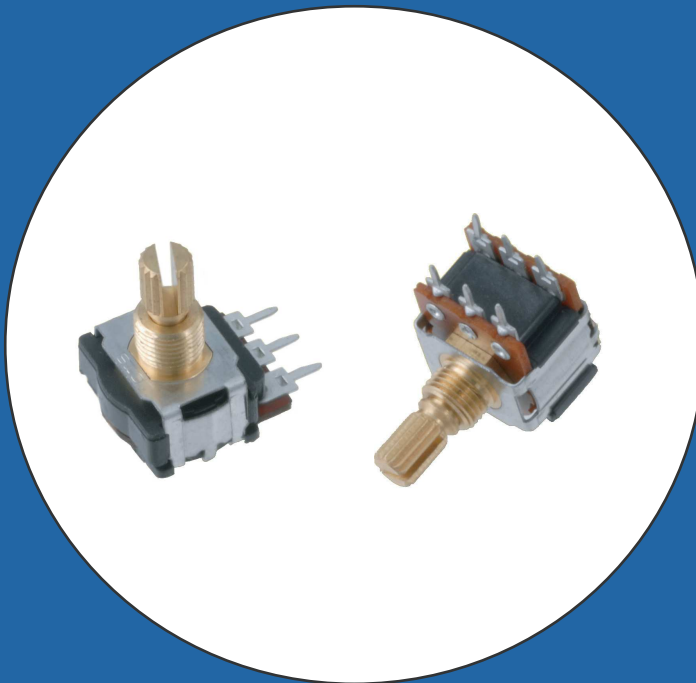


Commercial Miniature 16mm Size Rotary Encoder

Features

- Robust Construction
- 2-bit Incremental or 4-bit Absolute Encoder
- Optional Momentary Switch
- Available with 16 Detents
- Continuous Rotation
- Bushing Mount
- Solder Lug or PCB Terminals
- RoHS Compliant



Electrical and Mechanical Specifications

Encoder:

Contact Resistance

500Ω maximum

Voltage Rating

5 VDC @ 0.5mA maximum

Detent Points

16 detents available

Rotational Life

50,000 cycles

Resolution

2-bit: 4, 6, 8, 10 or 12 pulses in 360°

4-bit: 16 combinations in 360°

Insulation Resistance

10MΩ minimum at 50 VDC

Temperature Range

Operating: -25°C to +100°C

Storage: -30°C to +100°C

Rotational Torque

No Detent: 36 - 216 gf.cm

With Detent: 100 - 500 gf.cm

Solder Heat Resistance

260°C for 5 seconds

Push-Pull Strength of Shaft

8 kg minimum for 10 seconds

Special

Consult CTS for customized or features not listed, including other detent points, resolution, torque and mounting style.

Electrical and Mechanical Specifications (continued)

Optional Momentary Switch:

Switch Contact Resistance

Initial: 100mΩ maximum
After Life Cycles: 200mΩ maximum

Switch Rating

16 VDC @ 20mA maximum

Switch Bounce

5 milliseconds maximum

Switch Operating Force

350 ± 150 g (12.3 ± 5.3 oz.)

Switch Life

15,000 operations

Switch Travel

0.5mm (.020")

Truth Table

2 BIT BINARY CODE

DENOTES CONTACT CLOSURE TO COMMON																			
	B	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	1
A	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	1	0	
POS. NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	46	47	48

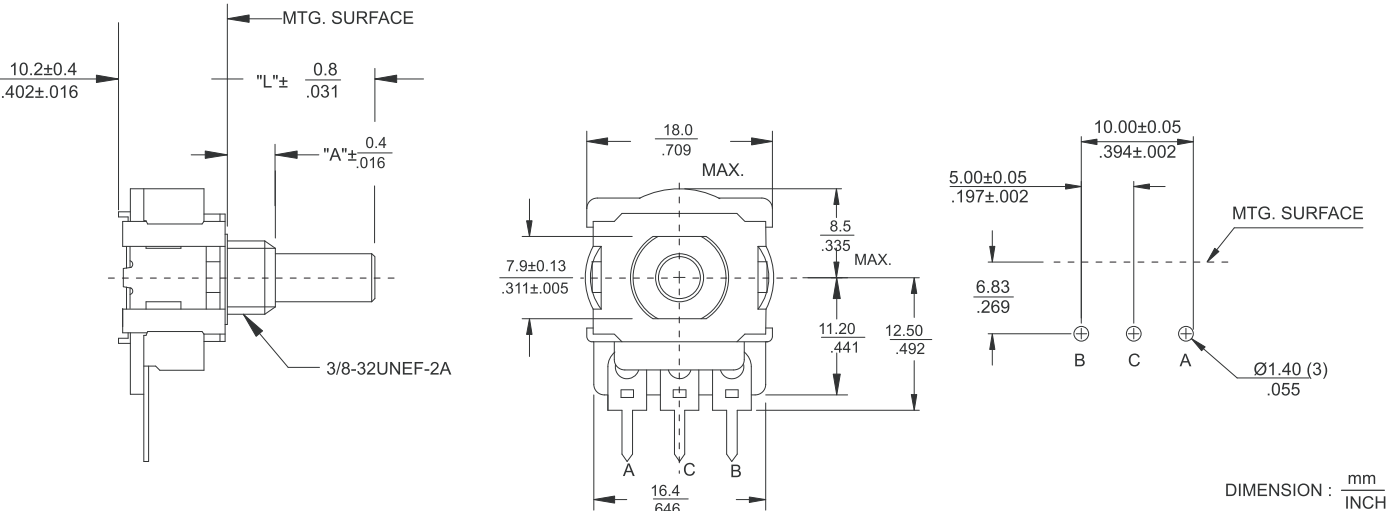
4 BIT GRAY CODE

POS. NO.	DENOTES CONTACT CLOSURE TO COMMON					
	A	B	E	F		
1	0	0	0	0		
2	0	0	0	1		
3	0	0	1	1		
4	0	0	1	0		
5	1	0	1	0		
6	1	0	1	1		
7	1	1	1	1		
8	1	1	1	0		
9	0	1	1	0		
10	0	1	1	1		
11	0	1	0	1		
12	0	1	0	0		
13	1	1	0	0		
14	1	1	0	1		
15	1	0	0	1		
16	1	0	0	0		

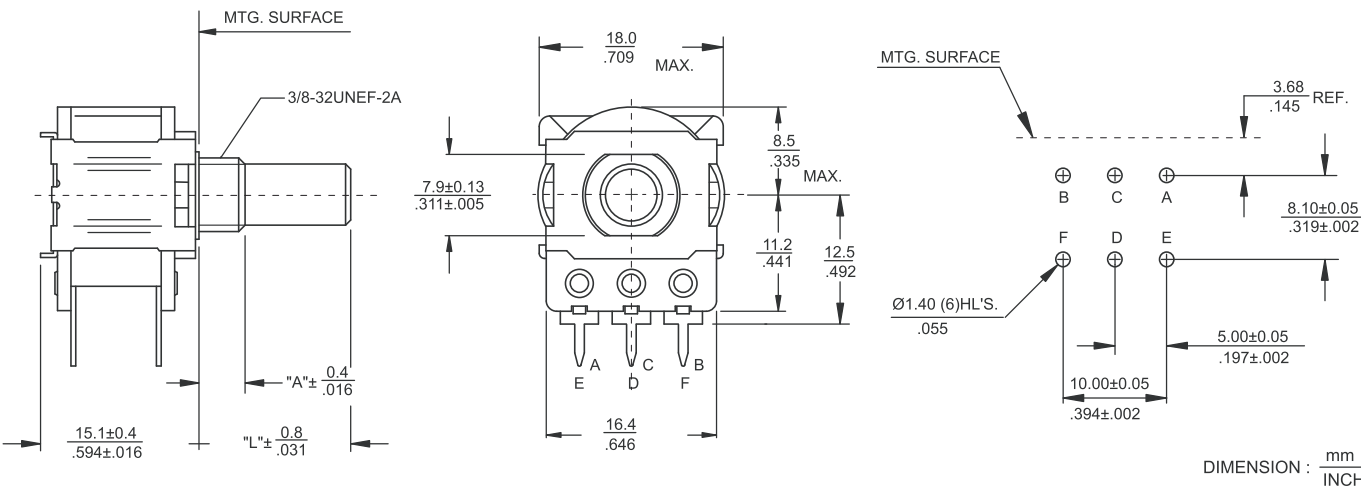
4 BIT HEXADECIMAL CODE

POS. NO.	DENOTES CONTACT CLOSURE TO COMMON					
	A	B	E	F		
1	0	0	0	0		
2	0	1	0	0		
3	1	0	0	0		
4	1	1	0	0		
5	0	0	0	1		
6	0	1	0	1		
7	1	0	0	1		
8	1	1	0	1		
9	0	0	1	0		
10	0	1	1	0		
11	1	0	1	0		
12	1	1	1	0		
13	0	0	1	1		
14	0	1	1	1		
15	1	0	1	1		
16	1	1	1	1		

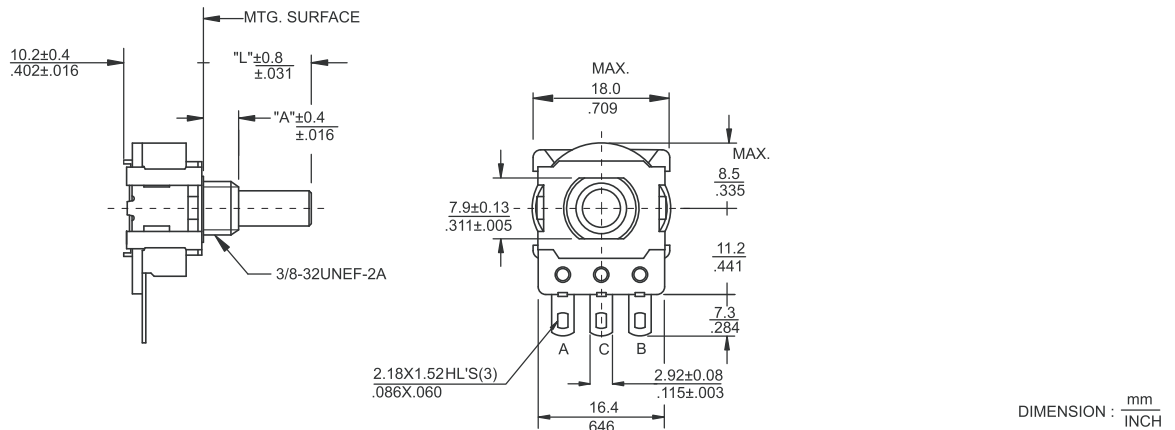
288X Typical 2-bit Encoder parallel to P.C. Board



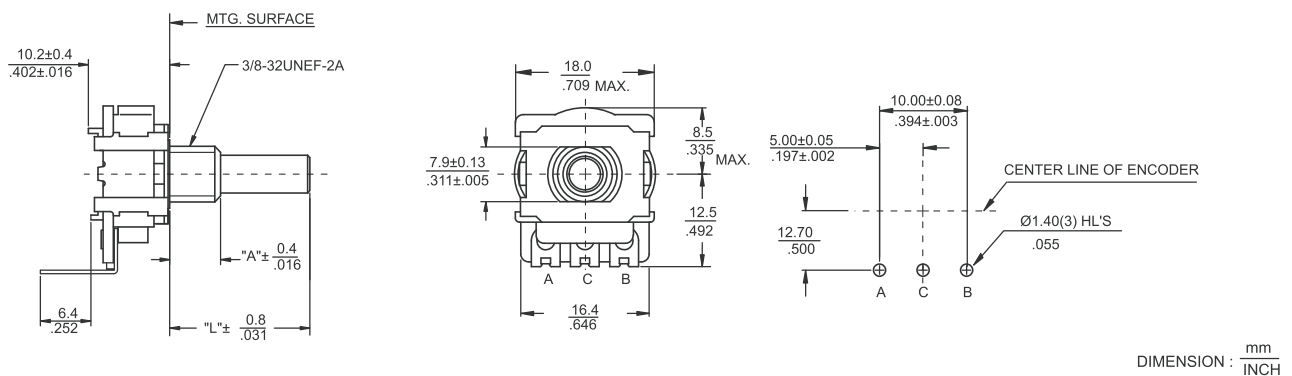
2-288X Typical 4-bit Encoder parallel to P.C. Board



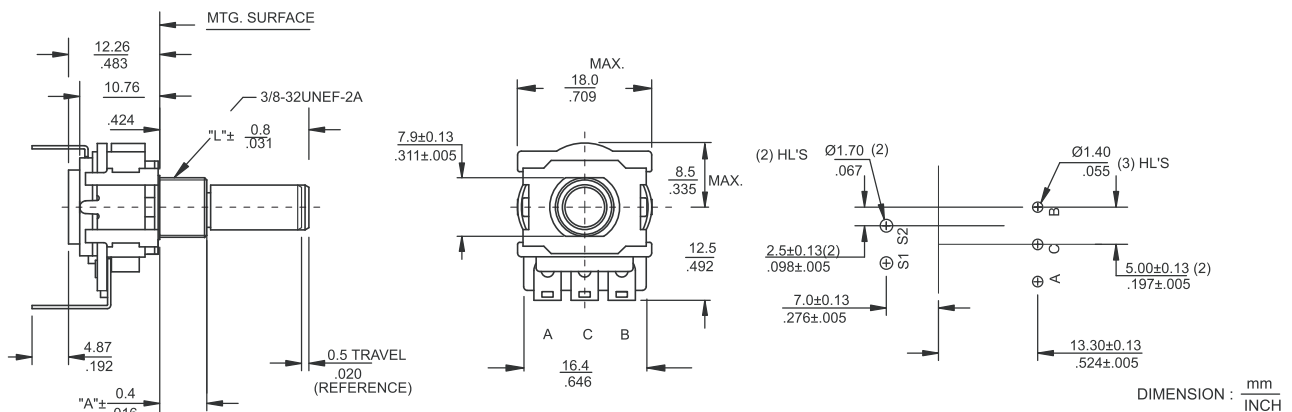
288T Typical 2-bit Encoder With Solder Lug Terminals



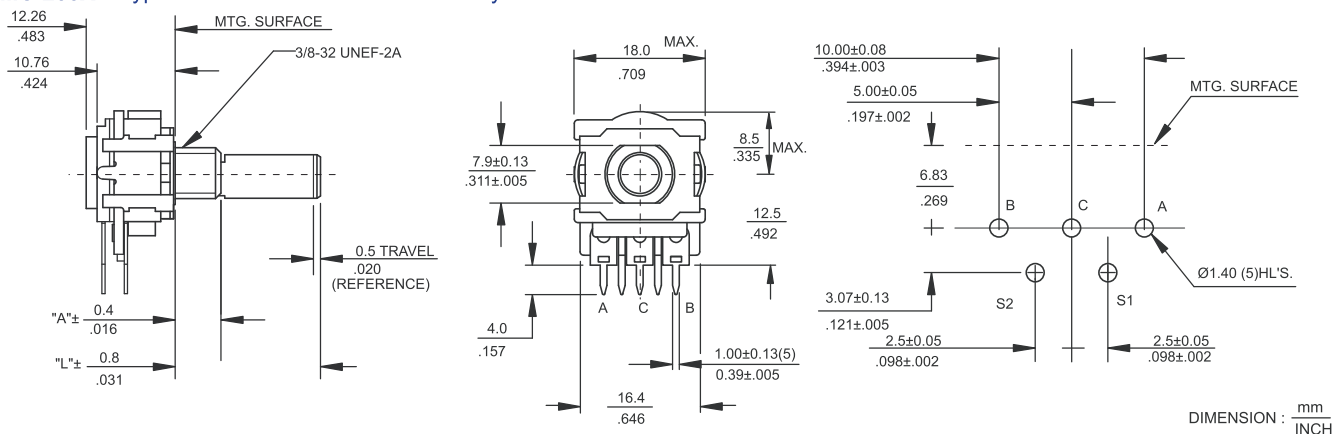
288V Typical 2-bit Perpendicular to P.C. Board



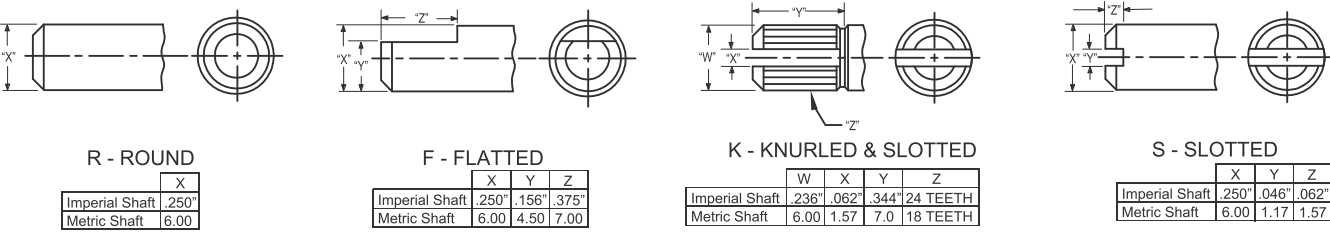
MC-288V Typical 2-bit Encoder With Momentary Switch Perpendicular to P.C. Board



MC-288X Typical 2-bit Encoder With Momentary Switch Parallel to P.C. Board

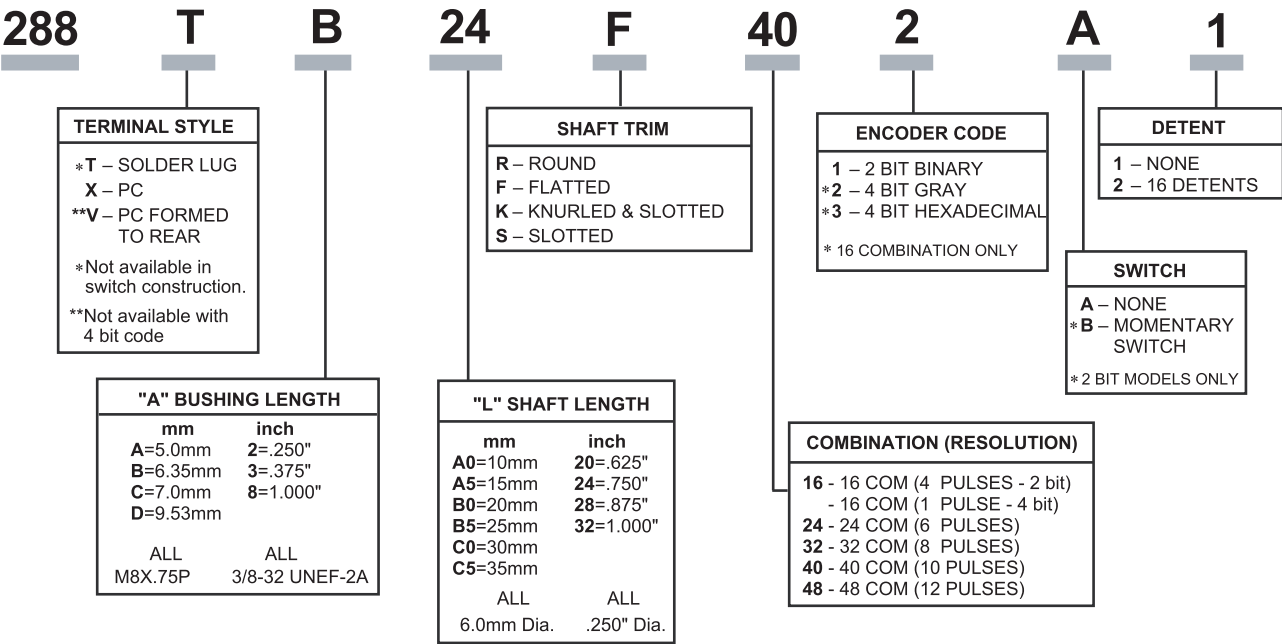


Shaft Trim



DIMENSION: inch
 mm

Ordering Information



Please consult CTS for customized or features not listed.