

Description

US Digital offers a wide variety of standard rotary encoder disks. They may be ordered as a stand alone disk (see below) or as a hub disk (see the Disks page). These rotary encoder disks are made from mylar polyester film. This material allows for a wide temperature range.

DISK-1 has an outer diameter (OD) of 1". We recommend that the shaft or hub diameter the disk is designed to fit be .001" to .002" larger than the disk hole diameter (ID). This gives an interference fit that ensures disk concentricity. The drawings shown represent our standard disks.

The maximum allowed RPM of the disk is typically limited by the maximum output frequency of the encoder module. The maximum allowed RPM is calculated as follows:

$$\text{Max. RPM} = (60 * F_{\text{max}}) / \text{CPR}$$

Where F_{max} = maximum encoder module output frequency and CPR is the Cycles per Revolution of the disk.

Only the *No Index*, EM1 Compatible option (NE) is available with the 32 CPR option. Other resolutions are available with or without an index track.

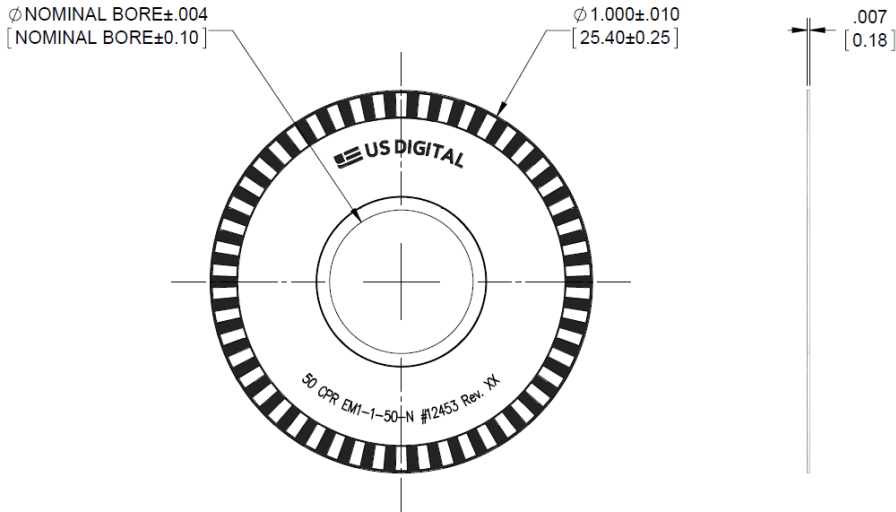
Mechanical alignment drawings for optical encoder rotary disks and optical encoder modules are available (see the EM1 and EM2 page).



Features

- ▶ 1" Outside Diameter
- ▶ Up to 5000 CPR (when paired with EM2)
- ▶ Index track option

Mechanical Drawing



RELEASE DATE: 01/15/2016

Specifications

Inside Diameter (ID) tolerance	±0.004"
Outside Diameter (OD)	1" ± 0.010"
Thickness	0.007"
Temperature Range	-40C to 100C

Ordering Information

DISK-1 - - -

CPR	ID	Index
32 =EM1	093 =.093"	NE =No Index, EM1 Compatible Only
50 =EM1	125 =.125"	IE =Index, EM1 & EM2 Compatible
96 =EM1	375 =.375"	
100 =EM1	441 =.441"	
110 =EM1		
120 =EM1		
192 =EM1		
200 =EM1		
250 =EM1		
256 =EM1		
360 =EM1		
400 =EM1		
500 =EM1		
512 =EM1		
540 =EM1		
720 =EM1		
900 =EM1		
1000 =EM1		
1024 =EM1		
1250 =EM1		
2000 =EM2		
2048 =EM2		
2500 =EM2		
4000 =EM2		
4096 =EM2		
5000 =EM2		

Notes

- US Digital warrants its products against defects in materials and workmanship for two years. See complete warranty for details.