DISK-2 2" Transmissive Rotary Disk

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 codewheel (see the Disks page). These rotary encoder disks are made from mylar polyester film. This material allows for a wide temperature range and is virtually unbreakable. There is no minimum order.

Custom disks featuring special resolutions, diameters (up to 12") and index options are available (contact the Sales department). An alternative to designing a custom disk for a special resolution is to use the EDIVIDE encoder resolution divider. The EDIVIDE allows users to customize resolutions to specific applications (see the EDIVIDE page).

DISK-2 has an outer diameter (OD) of 2". The optical radius of the disk is .920". The optical radius is defined as the distance from the center of the disk to the middle of the quadrature track. 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 maximimum 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:

Max. RPM = (60 * Fmax) / CPR

Where Fmax = 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 64 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 page).

Features

- 2" Outside Diameter
- .920" Optical Radius
- Up to 2500 CPR
- Index track option

Mechanical Drawing

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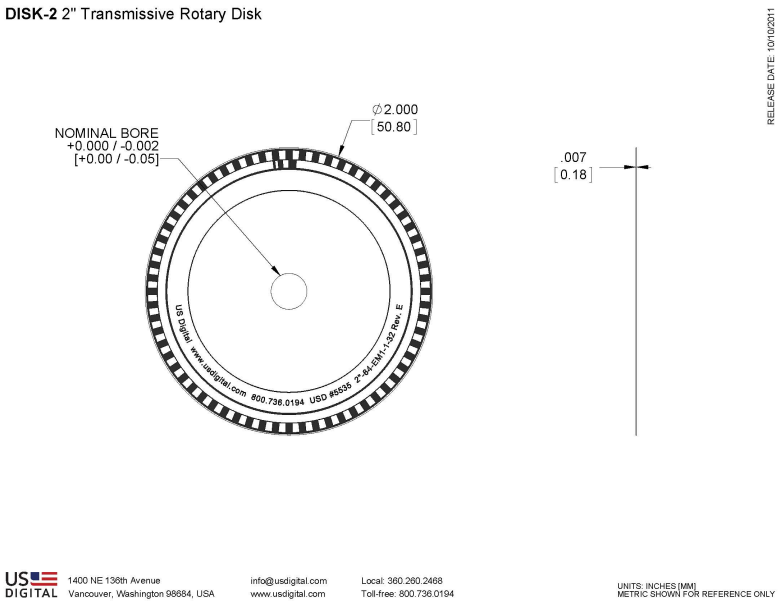

Specifications

Inside Diameter (ID) tolerance	+0.000" / -0.002"
Outside Diameter (OD)	2" ± 0.010"
Thickness	0.007"
Temperature Range	-40C to 100C

- .004" disk thickness also available. Please contact customer service.

Product Change Notifications

Title	Date	Description	Download
DISK-2 BCD - PCN 1013	9/21/2011	The standard DISK-2 transmissive encoder disk is currently produced with a 3-hole bolt pattern cut into the disk for ID sizes greater than or equal to .472? (12mm). This bolt circle feature will no longer be incorporated on any of our standard DISK-2 encoder disks. The purpose of this change is to create uniformity within our standard disk selection. Please contact us if you have interest in a custom disk with features in addition to the standard ID & OD.	Download

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Ordering Information

DISK-2 - [ ] - [ ] - [ ]

CPR	ID	Index
64	093 =*.093"*	N =*No Index (3rd Channel), Avago Compatible*
100	125 =*.125"*	I =*Index (3rd Channel), Avago Compatible*
200	375 =*.375"*	NE =*No Index (3rd Channel), EM1 Compatible*
400	441 =*.441"*	IE =*Index (3rd Channel), EM1 Compatible*
500	472 =*.472"*	
512	500 =*.500"*	
1000	551 =*.551"*	
1024	625 =*.625"*	
1800	750 =*.750"*	
2000	875 =*.875"*	
2048	984 =*.984"*	
2500	1000 =*1.00"*	

Rules

- Index must be equal to NE when CPR is equal to 64

Notes

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

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