

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.

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 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 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).

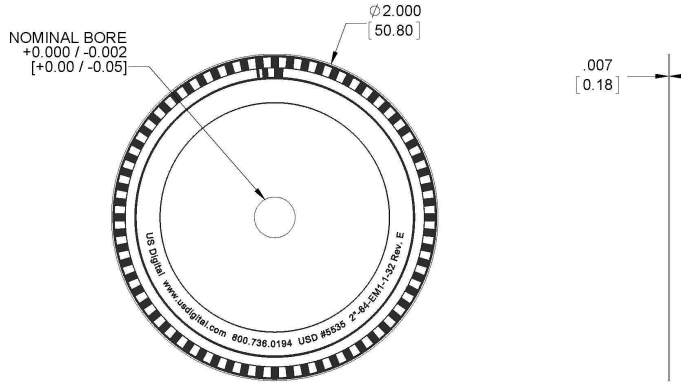


Features

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

Mechanical Drawing

DISK-2 2" Transmissive Rotary Disk



RELEASE DATE: 10/10/2011

US DIGITAL 1400 NE 136th Avenue
Vancouver, Washington 98684, USA

info@usdigital.com
www.usdigital.com

Local: 360.260.2468
Toll-free: 800.736.0194

UNITS: INCHES (MM)
METRIC SHOWN FOR REFERENCE ONLY

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

Ordering Information

DISK-2 - - -

CPR	ID
64 =	093 = .093"
100 =	125 = .125"
200 =	375 = .375"
400 =	441 = .441"
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"

Index
N = <i>No Index (3rd Channel), Avago Compatible</i>
I = <i>Index (3rd Channel), Avago Compatible</i>
NE = <i>No Index (3rd Channel), EM1 Compatible</i>
IE = <i>Index (3rd Channel), EM1 Compatible</i>

Rules
▶ Index must be equal to NE when CPR is equal to 64
▶ Index must be something other than N when CPR is equal to 1800 or 2500
▶ Index must be something other than I when CPR is equal to 1800 or 2500

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

Base Pricing

Quantity	Price
1	\$15.08
5	\$10.40
10	\$9.24

For volume discounts, please contact us at sales@usdigital.com or 800.736.0194.

- ▶ Add 100% per unit for **ID** of .472" , .500" , .551" , .625" , .750" , .875" , .984" or 1.00"
- ▶ Add 18% per unit for **Index** of Index (3rd Channel), Avago Compatible or Index (3rd Channel), EM1 Compatible