

Description

US Digital offers a wide variety of standard hub / disk assemblies (optical encoder disks attached to an aluminum hub) to aid with mounting on a shaft. Encoder disks may also be ordered as a stand alone item (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.

HUBDISK-2 consists of a precision machined aluminum hub fastened to a 2" diameter optical encoder disk (DISK-2). One or two set screws (depending on the hub's ID) are used to fasten the hub to a shaft. The codewheel is available with bore sizes ranging from 2 mm to 1 inch. All hub bores are held to a very tight tolerance of -0.0000 to +0.0005 inches. The nominal disk thickness is 0.007" and the operating temperature range is -40C to 100C.

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 and HEDS pages).



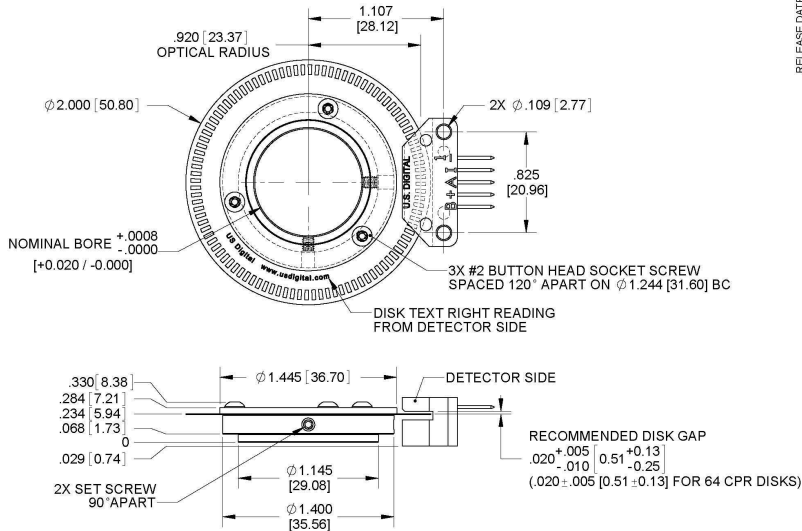
Features

- ▶ 2" outside diameter
- ▶ .920" optical radius
- ▶ 64 to 2500 cycles per revolution (CPR)

12mm & Greater

HUBDISK-2 2" Transmissive Rotary Codewheel
(Bores 12MM & Greater)

RELEASE DATE: 10/24/2011



US DIGITAL 1400 NE 136th Avenue
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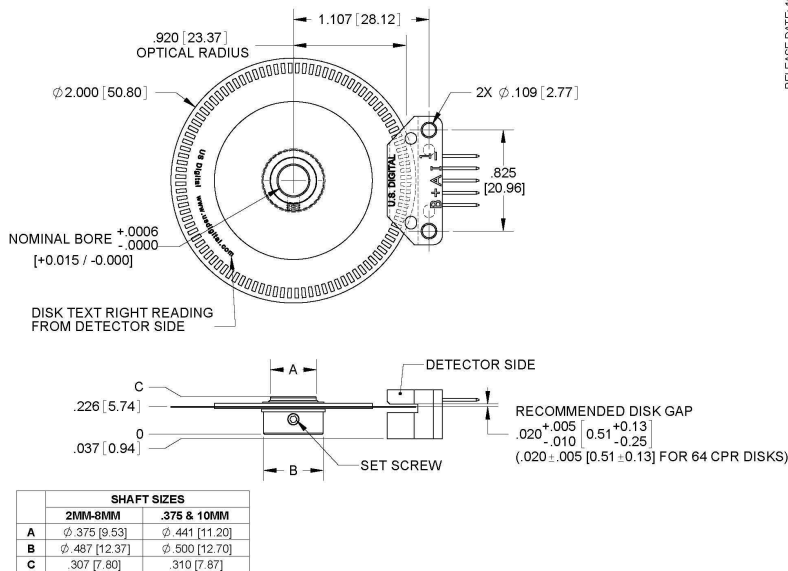
Local: 360.260.2468
Toll-free: 800.736.0194

UNITS: INCHES [MM]
METRIC SHOWN FOR REFERENCE ONLY

2mm - 10mm

HUBDISK-2 2" Transmissive Rotary Codewheel
(Bores 2MM - 10MM)

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SHAFT SIZES	
2MM-8MM	.375 & 10MM
A ϕ .375 [9.53]	ϕ .441 [11.20]
B ϕ .487 [12.37]	ϕ .500 [12.70]
C 307 [7.80]	310 [7.87]

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Set Screw Sizes

Hub ID	Set Screw Size	Number of Set Screws
2mm	#4-48	1
3mm	#4-48	1
1/8"	#4-48	1
5/32"	#4-48	1
4mm	#4-48	1
3/16"	#4-48	1
5mm	#4-48	1
6mm	#4-48	1
1/4"	#4-48	1
5/16"	#4-48	1
8mm	#4-48	1
3/8"	#4-48	1
10mm	#4-48	1
12mm	#3-48	2
1/2"	#3-48	2
14mm	#3-48	2
5/8"	#3-48	2
3/4"	#3-48	2
20mm	#3-48	2
7/8"	#3-48	2
25mm	#3-48	2
1"	#3-48	2

Torque Specifications

Parameter	Torque
Hub Set Screw to Shaft	2-3 in-lbs
Cover (4-40 screws through cover into base)	2-4 in-lbs
Base to Mounting Surface	4-6 in-lbs
Base to Mounting Adapter Plate	4-6 in-lbs
Adapter Plate to Mounting Surface	4-6 in-lbs
Module to Base	3.5-4 in-lbs

 **Technical Bulletins**

Title	Download
Technical Bulletin TB1001 - Shaft and Bore Tolerances	Download

Ordering Information

HUBDISK-2 - - -

CPR	ID	Index
64 =	079 =2mm	N =No Index, Avago Compatible
100 =	118 =3mm	I =Index (3rd Channel), Avago Compatible
200 =	125 =1/8"	NE =No Index, EM1 Compatible
400 =	156 =5/32"	IE =Index, EM1 Compatible
500 =	157 =4mm	
512 =	188 =3/16"	
1000 =	197 =5mm	
1024 =	236 =6mm	
1800 =	250 =1/4"	
2000 =	313 =5/16"	
2048 =	315 =8mm	
2500 =	375 =3/8"	
	394 =	
	10mm	
	472 =	
	12mm	
	500 =1/2"	
	551 =	
	14mm	
	625 =5/8"	
	750 =3/4"	
	787 =	
	20mm	
	875 =7/8"	
	984 =	
	25mm	
	1000 =1"	

- 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	\$26.75
5	\$18.45
10	\$16.17

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

- ▶ Add 38% per unit for **ID** of 12mm , 1/2" , 14mm , 5/8"
- ▶ Add 63% per unit for **ID** of 3/4" , 20mm , 7/8" , 25mm or 1"
- ▶ Add 18% per unit for **Index** of Index (3rd Channel), Avago Compatible or Index, EM1 Compatible