

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 and are defined by US Digital Technical Bulletin, Shaft and Bore Tolerances TB1001. 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 10000 cycles per revolution (CPR)

Rev. 141006175007



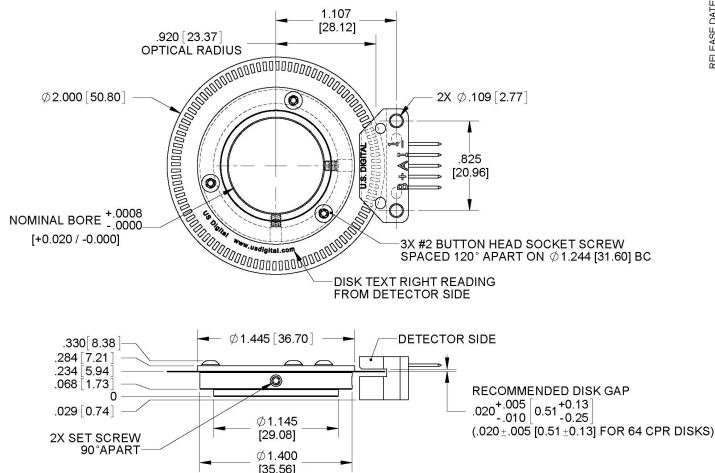
HUBDISK-2 2" Transmissive Rotary Codewheel

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12mm & Greater

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

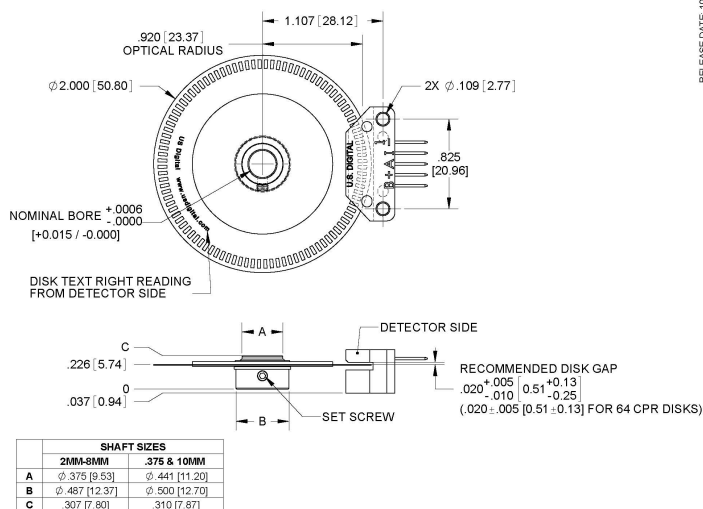


RELEASE DATE: 10/24/2011



2mm - 10mm

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



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	SHAFT SIZES	
	2MM-5MM	.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
7mm	#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

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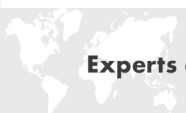
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Technical Bulletins

Title	Download
Technical Bulletin TB1001 - Shaft and Bore Tolerances	Download

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 Ordering Information

HUBDISK-2 - - -

CPR	ID	Index
64 =	079 =2mm	NE =No Index, EM1 Compatible
100 =	118 =3mm	IE =Index, EM1 Compatible
200 =	125 =1/8"	
400 =	156 =5/32"	
500 =	157 =4mm	
512 =	188 =3/16"	
1000 =	197 =5mm	
1024 =	236 =6mm	
1800 =	250 =1/4"	
2000 =	276 =7mm	
2048 =	313 =5/16"	
2500 =	315 =8mm	
3600	375 =3/8"	
4000	394 =10mm	
4096	472 =12mm	
5000	500 =1/2"	
7200	551 =14mm	
8000	625 =5/8"	
8192	750 =3/4"	
10000	787 =20mm	
	875 =7/8"	
	984 =25mm	
	1000 =1"	

Notes

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

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