

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-1 consists of a precision machined aluminum hub fastened to a 1" diameter optical encoder disk (DISK-1). A set screw is used to attach the hub to a shaft. The codewheel is available with bore sizes ranging from 2 mm to 10 mm. 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.

The disk on the assembly comes attached with the emulsion side up / right reading (see drawings provided).

Only the *No Index*, EM1 Compatible option (NE) is available with the 32 CPR option.

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

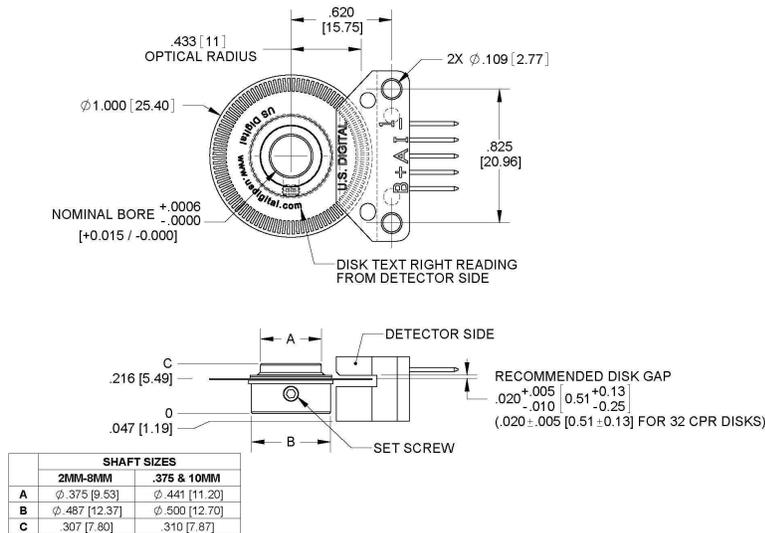


Features

- ▶ 1" disk with hub
- ▶ .433" optical radius
- ▶ 32 to 1250 cycles per revolution (CPR)

Mechanical Drawing

HUBDISK-1 1" Transmissive Rotary Codewheel



RELEASE DATE: 10/17/2011

Set Screw Sizes

Hub ID	Set Screw Size
2mm	#4-48
3mm	#4-48
1/8"	#4-48
5/32"	#4-48
4mm	#4-48
3/16"	#4-48
5mm	#4-48
6mm	#4-48
1/4"	#4-48
5/16"	#4-48
8mm	#4-48
3/8"	#4-48
10mm	#4-48

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-1 - - -

CPR	ID	Index
32 =	079 =2mm	N =No Index, Avago Compatible
50 =	118 =3mm	I =Index (3rd Channel), Avago Compatible
96 =	125 =1/8"	NE =No Index, EM1 Compatible
100 =	156 =5/32"	IE =Index, EM1 Compatible
110 =	157 =4mm	
120 =	188 =3/16"	
192 =	197 =5mm	
200 =	236 =6mm	
250 =	250 =1/4"	
256 =	313 =5/16"	
360 =	315 =8mm	
400 =	375 =3/8"	
500 =	394 =	
512 =	10mm	
540 =		
720 =		
900 =		
1000 =		
1016 =		
1024 =		
1250 =		

- Rules**
- ▶ Index must be equal to NE when CPR is equal to 32
 - ▶ Index must be something other than N when CPR is equal to 720, 900 or 1250
 - ▶ Index must be something other than I when CPR is equal to 720, 900, 1000, 1024 or 1250

- 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	\$17.55
5	\$12.10
10	\$9.24

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

- ▶ Add 11% per unit for **Index** of Index (3rd Channel), Avago Compatible or Index, EM1 Compatible