



## DISK-1 Features

- 1 in. outside diameter
- Mylar film construction
- 32 to 5,000 CPR
- Index track option
- Compatible with US Digital's EM1 and EM2 encoder modules



## DISK-1 Product Description

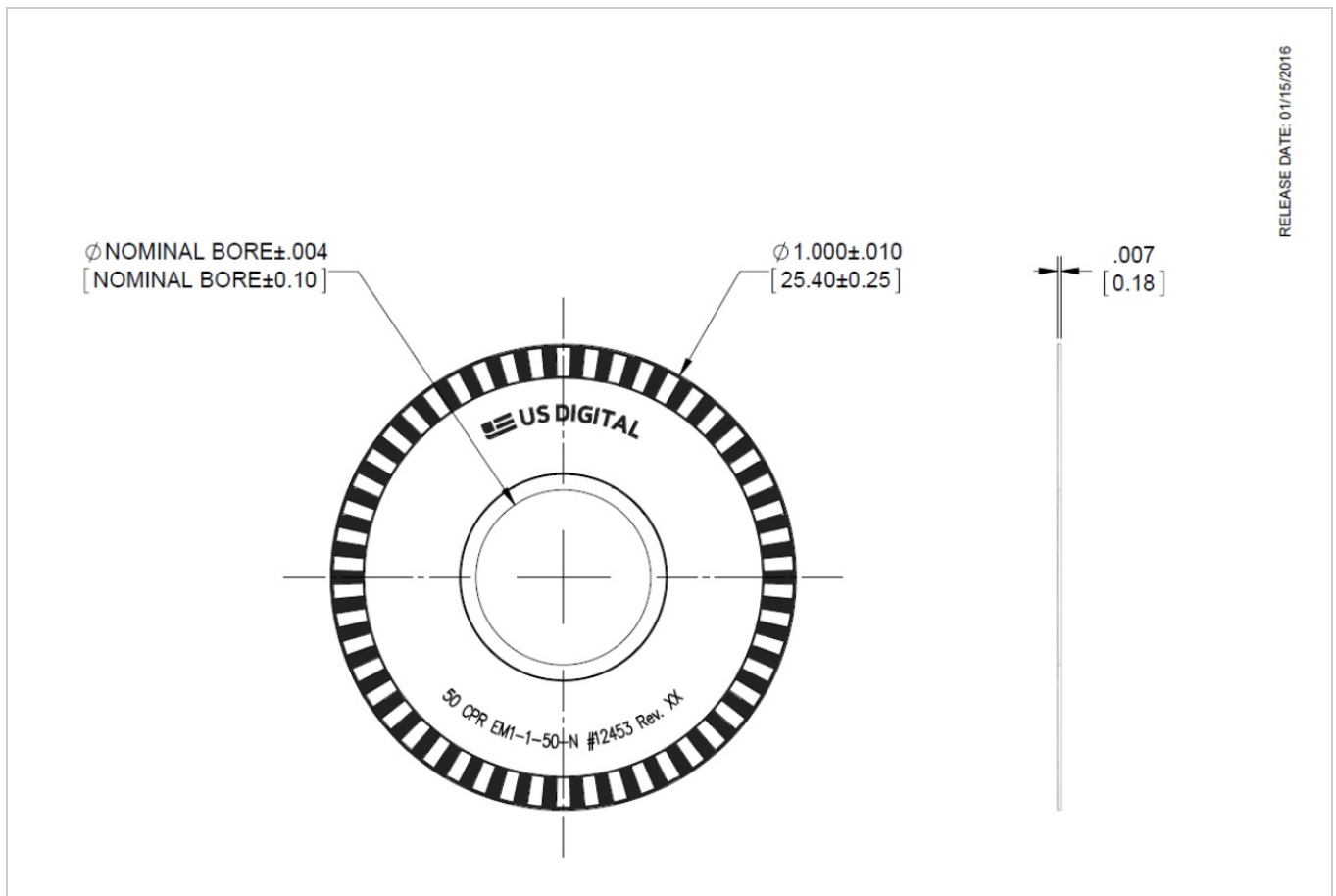
US Digital offers a wide variety of standard rotary encoder disks. They may be ordered as a stand-alone disk or as a hub disk. These rotary encoder disks are made from Mylar polyester film. This material allows for a wide temperature range.



The 32 CPR is available only in the *No Index, EM1 Compatible option (NE)*. 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 (<https://www.usdigital.com/products/encoders/incremental/modules/em1/>) and EM2 (<https://www.usdigital.com/products/encoders/incremental/modules/em2/>) pages).

## Mechanical Drawings





## Specifications

---

### SPECIFICATIONS

|                                |                |
|--------------------------------|----------------|
| Inside Diameter (ID) tolerance | ±0.004"        |
| Outside Diameter (OD)          | 1" ± 0.010 in. |
| Thickness                      | 0.007"         |
| Temperature Range              | -40C to 100C   |

---

### COMPATIBLE ENCODER MODULES



# DISK-1 1 in. Transmissive Rotary Encoder Disk

| CPR  | 1" DISK<br>Non-Index | MODULE<br>Non-Index | 1" DISK<br>Index | MODULE<br>Index |
|------|----------------------|---------------------|------------------|-----------------|
| 32   | DISK-1-32-*-NE       | EM1-1-32-N          |                  |                 |
| 50   | DISK-1-50-*-NE       | EM1-1-50-N          | DISK-1-50-*-IE   | EM1-1-50-I      |
| 96   | DISK-1-96-*-NE       | EM1-1-100-N         | DISK-1-96-*-IE   | EM1-1-100-I     |
| 100  | DISK-1-100-*-NE      | EM1-1-100-N         | DISK-1-100-*-IE  | EM1-1-100-I     |
| 120  | DISK-1-120-*-NE      | EM1-1-100-N         |                  |                 |
| 200  | DISK-1-200-*-NE      | EM1-1-200-N         | DISK-1-200-*-IE  | EM1-1-200-I     |
| 192  | DISK-1-192-*-NE      | EM1-1-200-N         | DISK-1-192-*-IE  | EM1-1-200-I     |
| 250  | DISK-1-250-*-NE      | EM1-1-250-N         | DISK-1-250-*-IE  | EM1-1-250-I     |
| 256  | DISK-1-256-*-NE      | EM1-1-250-N         | DISK-1-256-*-IE  | EM1-1-250-I     |
| 360  | DISK-1-360-*-NE      | EM1-1-360-N         | DISK-1-360-*-IE  | EM1-1-360-I     |
| 400  | DISK-1-400-*-NE      | EM1-1-400-N         | DISK-1-400-*-IE  | EM1-1-400-I     |
| 500  | DISK-1-500-*-NE      | EM1-1-500-N         | DISK-1-500-*-IE  | EM1-1-500-I     |
| 512  | DISK-1-512-*-NE      | EM1-1-512-N         | DISK-1-512-*-IE  | EM1-1-512-I     |
| 540  | DISK-1-540-*-NE      | EM1-1-540-N         | DISK-1-540-*-IE  | EM1-1-540-I     |
| 720  | DISK-1-720-*-NE      | EM1-1-720-N         | DISK-1-720-*-IE  | EM1-1-720-I     |
| 800  | DISK-1-800-*-NE      | EM1-1-800-N         | DISK-1-800-*-IE  | EM1-1-800-I     |
| 900  | DISK-1-900-*-NE      | EM1-1-900-N         | DISK-1-900-*-IE  | EM1-1-900-I     |
| 1000 | DISK-1-1000-*-NE     | EM1-1-1000-N        | DISK-1-1000-*-IE | EM1-1-1000-I    |
| 1024 | DISK-1-1024-*-NE     | EM1-1-1024-N        | DISK-1-1024-*-IE | EM1-1-1024-I    |
| 1250 | DISK-1-1250-*-NE     | EM1-1-1250-N        | DISK-1-1250-*-IE | EM1-1-1250-I    |
| 2000 |                      |                     | DISK-1-2000-*-IE | EM2-1-2000-I    |
| 2048 |                      |                     | DISK-1-2048-*-IE | EM2-1-2048-I    |
| 2500 |                      |                     | DISK-1-2500-*-IE | EM2-1-2500-I    |
| 4000 |                      |                     | DISK-1-4000-*-IE | EM2-1-4000-I    |
| 4096 |                      |                     | DISK-1-4096-*-IE | EM2-1-4096-I    |
| 5000 |                      |                     | DISK-1-5000-*-IE | EM2-1-5000-I    |

\*Represents the bore size

## Notes

- US Digital® warrants its products against defects in materials and workmanship for two years. See complete warranty (<https://www.usdigital.com/company/warranty>) for details.



## Configuration Options

| DISK-1 | CPR (Cycles Per Revolution) | Disk ID      | Index          |
|--------|-----------------------------|--------------|----------------|
|        | 32                          | 093 (0.093") | IE (Index)     |
|        | 50                          | 125 (0.125") | I (Index)      |
|        | 96                          | 375 (0.375") | NE (Non-Index) |
|        | 100                         | 441 (0.441") |                |
|        | 120                         |              |                |
|        | 192                         |              |                |
|        | 200                         |              |                |
|        | 250                         |              |                |
|        | 256                         |              |                |
|        | 360                         |              |                |
|        | 400                         |              |                |
|        | 500                         |              |                |
|        | 512                         |              |                |
|        | 540                         |              |                |
|        | 720                         |              |                |
|        | 800                         |              |                |
|        | 900                         |              |                |
|        | 1000                        |              |                |
|        | 1024                        |              |                |
|        | 1250                        |              |                |
|        | 2000                        |              |                |
|        | 2048                        |              |                |
|        | 2500                        |              |                |
|        | 4000                        |              |                |
|        | 4096                        |              |                |
|        | 5000                        |              |                |

**PLEASE NOTE: This chart is for informational use only.** Certain product configuration combinations are not available. Visit the DISK-1 product page (<https://www.usdigital.com/products/DISK-1>) for pricing and additional information.