BAL SEAL® SPRING-ENERGIZED SEALS IN ROTARY OPTICAL ENCODERS

Optical encoders control other mechanical devices by transforming electrical signals into mechanical action. Optical encoders are used in a variety of applications, such as robotic controls, NC lathes, disk drives, medical instruments, and welding equipment.

The optical encoder uses carefully aligned photoelectric sensors placed in front of a rotating disk that acts as a shutter. A light behind this disk provides the signal that is picked up by the sensors.

The KPX series Bal Seal® spring-energized seal closes off the rotating shaft and protects the precision encoder components from damage by outside environment elements such as water and dust.

**Operating Parameters:**

- **Media:** Dust
- **Friction:** Very low
- **Speed:** 3,600 rpm
- **Additional:** Low frictional torque and easy assembly

**Seal Selection:** KPX

**Features:**
Bal Seal polymer-filled PTFE provides good wear resistance and low friction, and works well in non-lubricated environments.

For more information and technical assistance, contact a technical sales representative.

---

**PATENTS:** The items described in this page include products that are the subject of issued United States and foreign patents or products where patents are pending, including the following: Patents 6,641,141 B2; 7,210,398 B2; 6,161,838; 5,992,856; 5,134,244 U.S. Address 19650 Pauling Foothill Ranch, CA 92610-2610 • Telephone: (949) 460-2100• Fax: (949) 460-2300
BV Address: Jollemanhof 16, • 1019 GW Amsterdam • The Netherlands • Telephone: 31 20 638 65 23 • Fax: 31 20 625 60 18
Bal Seal Engineering, Inc. is certified to ISO 9001
www.balseal.com
Rev.E 11-26-14 (11-201)