

Magnetic ring for industrial applications



Thanks to the expert technical know-how of magnetic systems, we offer different types of encoders perfectly adapted to match various families of sensors. Typically: Hall Effect, AMR or GMR sensors.=

Hutchinson develops magnetic rings, made of a metal insert bonded together with a rubber matrix filled with magnetic particles. The rubber compounds that we design, respond reliably to heavy duty applications, combining elastic properties and strong rubber/insert adhesion under extreme conditions of usage (mud, sand, salt, oils & greases). Ideal solution for high speed up to 25000 RPM.

Our solutions enable to reach high measurement accuracy. They are applied in position and speed controls for safety and maintenance purposes. They are key components in the age of digital.

- Products Family: Magnet rings

Technical Features

- Elasto-Ferrite Magnetic Rubber molded and bonded to a metal insert
- Customized magnetic track(s)
- Choice of magnetized compound: NBR (from -40 up to 140°C) and HNBR (from -40 up to 160°C)
- Customized Polarisation Process for incremental applications (relative position, rotational speed) and absolute multi-track applications (absolute angular position, rotational speed)
- High remanence up to $B_r = 3500G$ & High coercitive field: 240 KA/m
- High signal accuracy & resolution : polar width down to 2mm; period tolerance down to 0.05°; cumulated period deviation down to 0.1° (tested on a Hutchinson Magnetic ring with: diam= 115mm, 60 poles pairs & polar width= 6°)
- High robustness & resistance to shocks and vibrations: 500g and 2000 Hz

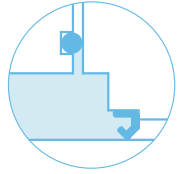
Benefits

Robustness Reliable under extreme conditions Mechatronics integration Enhanced Safety

Market and Expertise

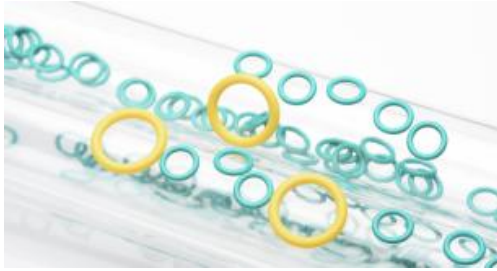


INDUSTRY



**PRECISION
SEALING SYSTEMS**

All products families



O-RINGS

Our O-Rings ensure perfect static and dynamic seals between two parts assembled radially (shafts) or axially (covers). They can withstand the most extreme temperatures and fit in the smallest spaces.



Shaft Seals

They ensure the perfect sealing on rotating, or translating shafts under a large range of temperature. Our Dynamic Seals maintain lubricants in engines and transmissions while avoiding any foreign particles or fluid pollution.



Magnet rings

Thanks to the magnet pattern printed in an elastomeric or plastic compound, our Encoders can accurately provide position, direction and speed of a rotating shaft. You find it operating in engines, transmissions and ABS systems.



Precision Static Seals

Braking, fuel, oil, air, water systems are operational if they do not leak. Their reliability results from our Precision Static Seals, made of approved materials, tailor made designs and mastered processes.