



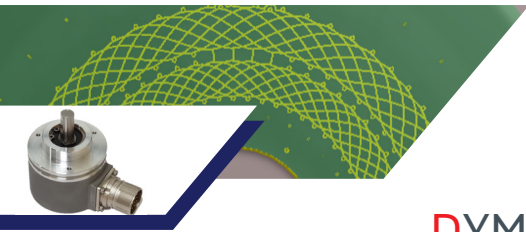
HUTCHINSON®



We make it *possible*

**DYMEO®**

ABSOLUTE ROTARY INDUCTIVE SENSOR



# DYMEO®: A TAILOR-MADE SENSOR ACCURATE, ROBUST, RESPONSIVE



Developed using inductive technology, Dymeo® is an innovative tailor-made solution. It transmits the absolute angle measurement under all conditions. Using this solution, all types of rotating components are controlled with high resolution and accuracy.

Dymeo® is an absolute inductive angular position sensor based on the Eddy currents technology. It detects the angular position of a simple metal target without contact and in absolute terms.

The use of Eddy currents (2 to 5 MHz) guarantees a precise angle measurement with high resolution and robustness against low-frequency magnetic interference fields, even under extreme conditions.

The low latency and high bandwidth (>10 KHz) ensure high quality information. The angle and

rotation speed measurements are achieved according to the protocol chosen by our customers.

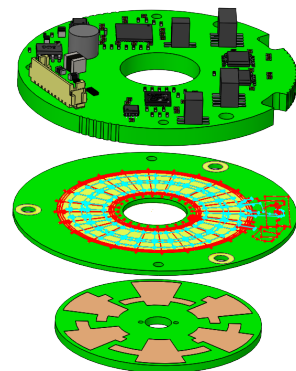
Dymeo® performances are guaranteed thanks to an optimized design. We take into account the environment in our numerical simulation software to design a custom sensor.

The robustness of Dymeo® sensors allows them to adapt to all types of applications including the most demanding industrial sectors such as aerospace, automotive, defence, railway, medical...



## A TAILOR-MADE SENSOR

Our teams work together with customers to define the specifications in order to offer a fully adapted solution. Hutchinson has developed finite element calculation tools to design and optimize the sensor through simulation.



### DYMEO® FITS INTO ANY ENVIRONMENT

Thanks to its compact design, Dymeo® adapts to the highest standards.

### DYMEO® SUITS ALL APPLICATIONS

We design the stator and rotor of the sensor so that they perfectly meet customer needs.

## TECHNICAL DATA

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- ▶ Absolute sensor, „True-power-on“ over 360°
- ▶ Resolution up to 26 bits
- ▶ Mechanical angular position accuracy:  $\pm 0.02^\circ$
- ▶ Refresh rate up to 100 kHz
- ▶ Rotation speed up to 100,000 rpm
- ▶ Insensitive to low frequency interference fields <150 kHz
- ▶ Power consumption < 0.8 Watt (30 mA/24 VDC)
- ▶ Temperature range from -40 °C to +150 °C
- ▶ Customizable output signal:
  - analogic sin/cos
  - incremental ABZ or UVW
  - digital SSI/BISS
- ▶ No latency (analogic signal), <5 $\mu$ s (incremental or digital signal)

## BENEFITS

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### ACCURATE



Each Dymeo® sensor design is optimized by numerical simulation.

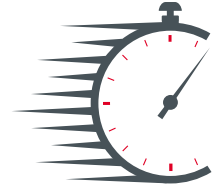
This allows us to offer the best accuracy of our technology while optimizing development time and costs.

### ROBUST



Dymeo® is robust to mechanical misalignment. It allows easy integration and assembly in the application. It operates in extreme conditions: insensitive to low frequency magnetic interference fields, resistant to vibration and pollution.

### RESPONSIVE



Dymeo® is „True-power-on“ by its geometrical design: the delivered information is available immediately when connected.

Its latency time ensures perfect reactivity in all conditions.



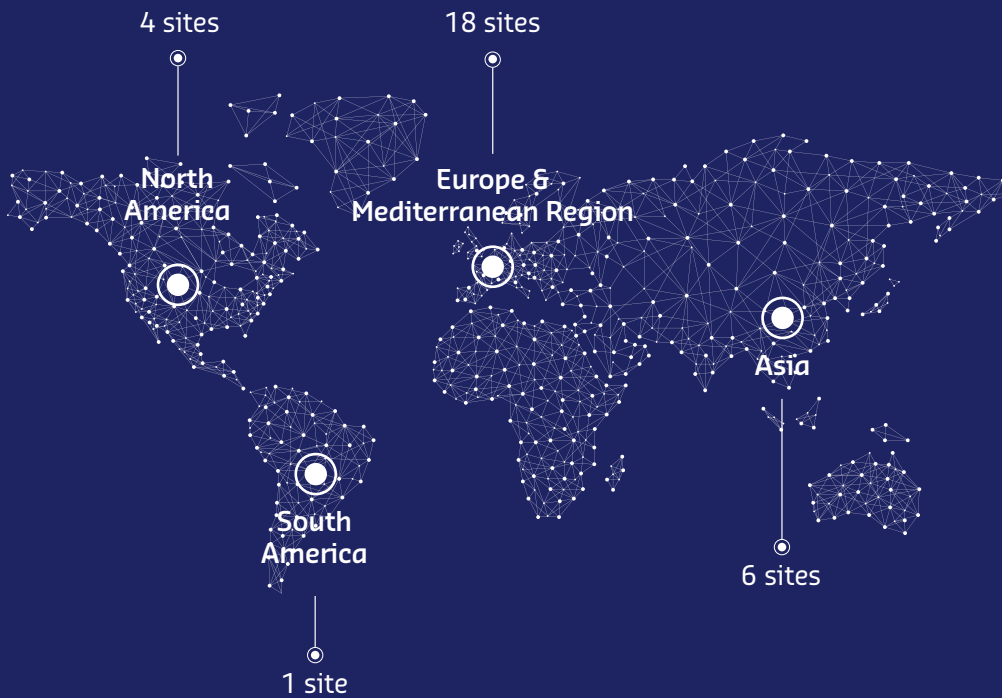
## ABOUT HUTCHINSON PRECISION SEALING SYSTEMS

Hutchinson Precision Sealing Systems (PSS), leading manufacturer of sealing solutions, is also specialized in the design and manufacturing of rotating magnetic targets. For over 25 years, our magnetic rings have brought reliable and accurate speed or position measurements for the automotive and industrial markets.

We now offer a custom-made absolute rotary sensor for extreme environments. Our teams work together with customers to develop and provide customized solutions for the most severe specifications.

With 29 sites in 15 countries, Hutchinson PSS employs nearly 7,500 people and has a turnover of more than €624M.

## HUTCHINSON PSS AROUND THE WORLD



[www.hutchinson.com](http://www.hutchinson.com)

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## HUTCHINSON



€ 4,314 bn turnover



25 countries



5% invested each year in research & innovation



97 sites around the world



> 44,000 employees