

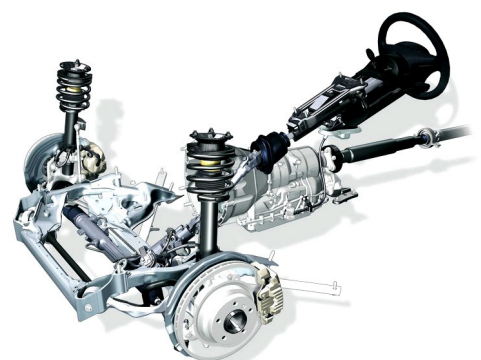
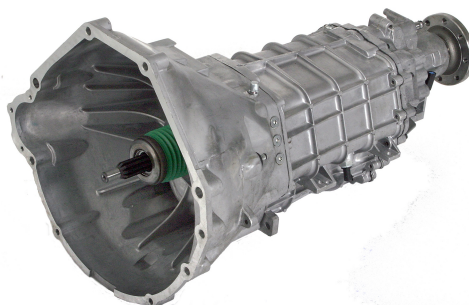
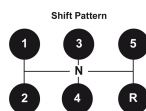
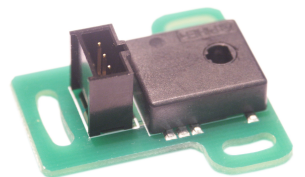
Original thinking

# Through shaft sensing

Slimline, low cost, long life  
360° sensing for extreme environments  
using the magnetic Hall effect

Absolute output with linearity up to **+/- 0.5%** for over **50 million cycles**  
Off the shelf: 14 and 17mm rotor diameter

- + Any diameter
- + Any shape
- + Any output protocol



# Open thinking

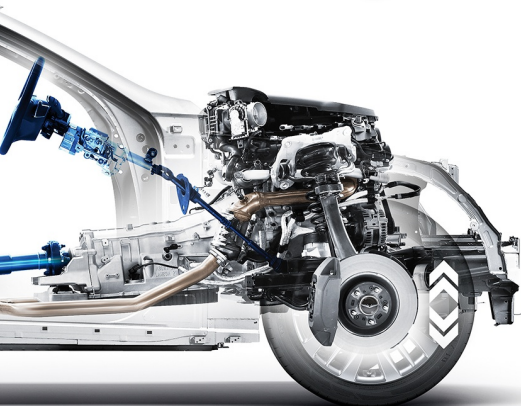
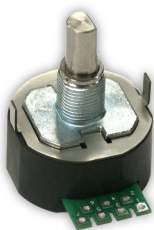
# End-of-shaft sensing

You know the benefits of contactless rotary position sensors—long-life and high accuracy. But finding a drop-in contactless alternative to your existing contacting solution can be a struggle.

To give you the flexibility you need, we've created **Piher Service +**.

We'll customise anything for you from our off-the-shelf magnetic Hall effect range.

- + Any shaft diameter
- + Any dimension
- + Any output protocol
- + Integrated connector or wire harness interface



# Revolutionary thinking

## Play resistant

The **variable gap** sensor creates immunity to radial and axial play on mobile shafts where significant misalignment results in poor operational performance and labour intensive maintenance programmes.

A round or arc magnet (where 360° rotation angle is unnecessary) is attached to rotating parts of kit, such as boom loaders, skid steer buckets and high arms, and the electronics module to the chassis (or vice versa).

Here, Piher separates the magnet from the electronics module.

- + Any arc magnet diameter
- + 3 +/- 2 mm air-gap distance
- + Harsh environment sealing
- + Possibility to customise the air-gap distance



custom solution  
only



# Revolutionary thinking

# Touchless

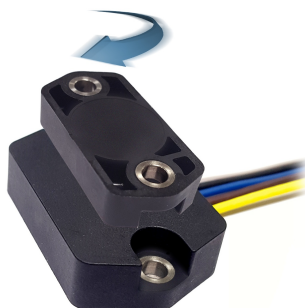
# magnetic

Our touchless sensors feature two independent mechanical modules containing the target magnet and the sensor electronics positioned as an on-shaft configuration. The sensor is a truly contactless sensor due to there is not physical connection between the electronics (stationary element) and the target magnet (moving element). This type of sensor provides the same precision as one piece sensors and allows both **Rotary** and **Linear** sensing strokes.

Something that is easy to assemble – less sensitive to the application shaft's axial and radial plays - delivering additional cost reduction on the production assembly.

Designed to be fitted in harsh environment applications such as Off-highway and Marine due to the fully sealed electronics and magnet.

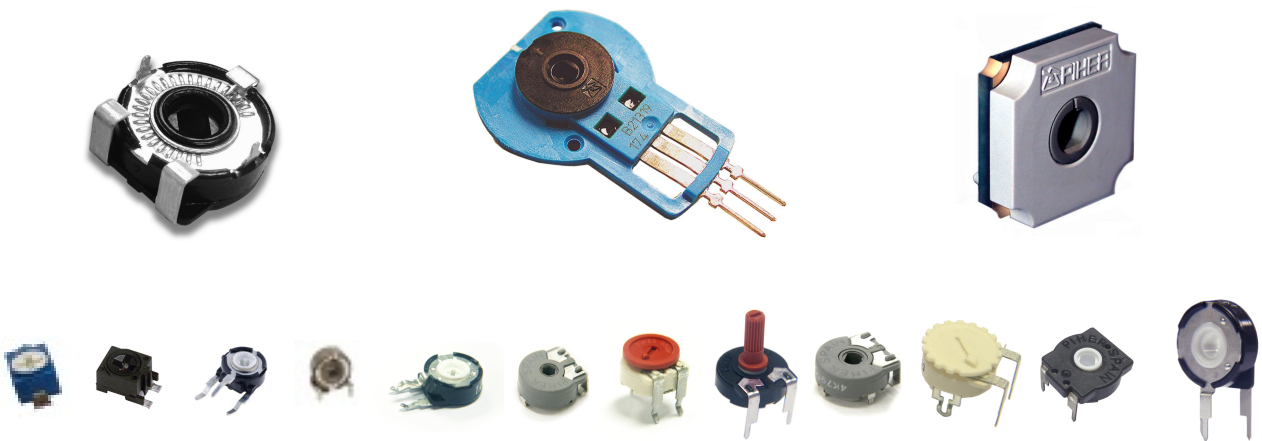
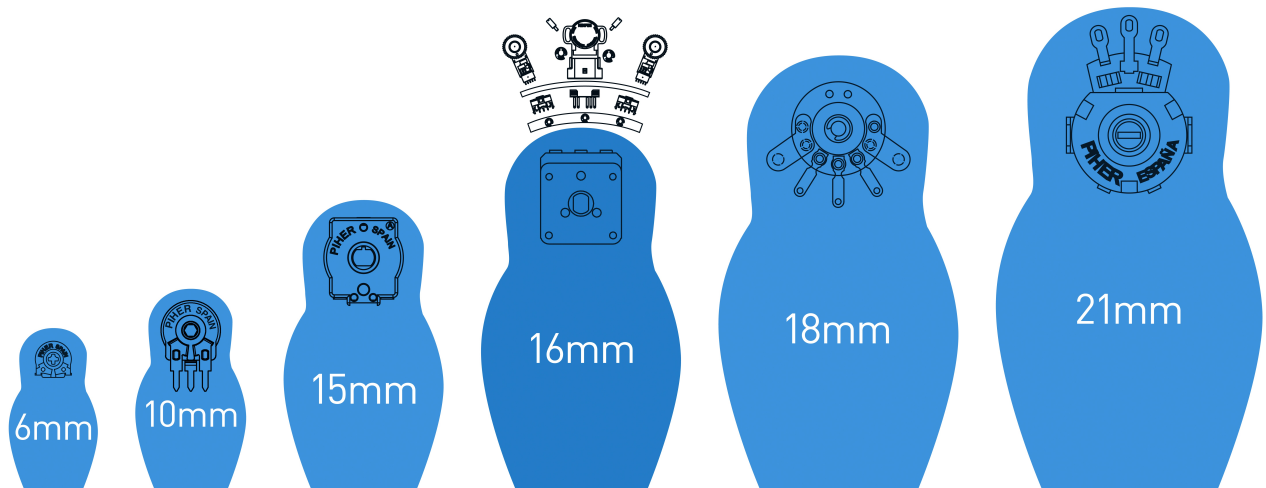
- + Truly contactless
- + Precision and stability
- + Easy to assemble
- + Rotary and linear displacement feedback



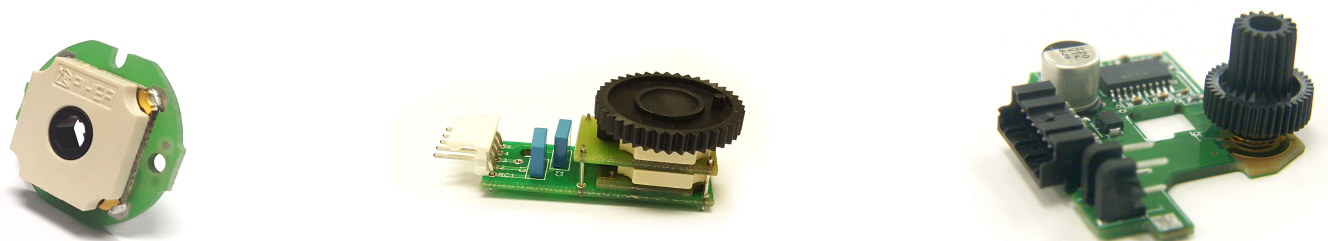


# Surface - mount and through-hole Potentiometers

We'll customise our catalogue for you.  
But first meet the family.

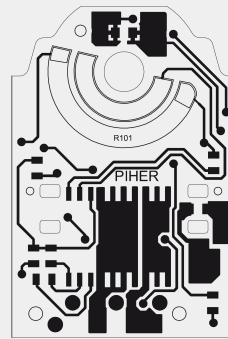


Or create fully **custom** mechatronics.



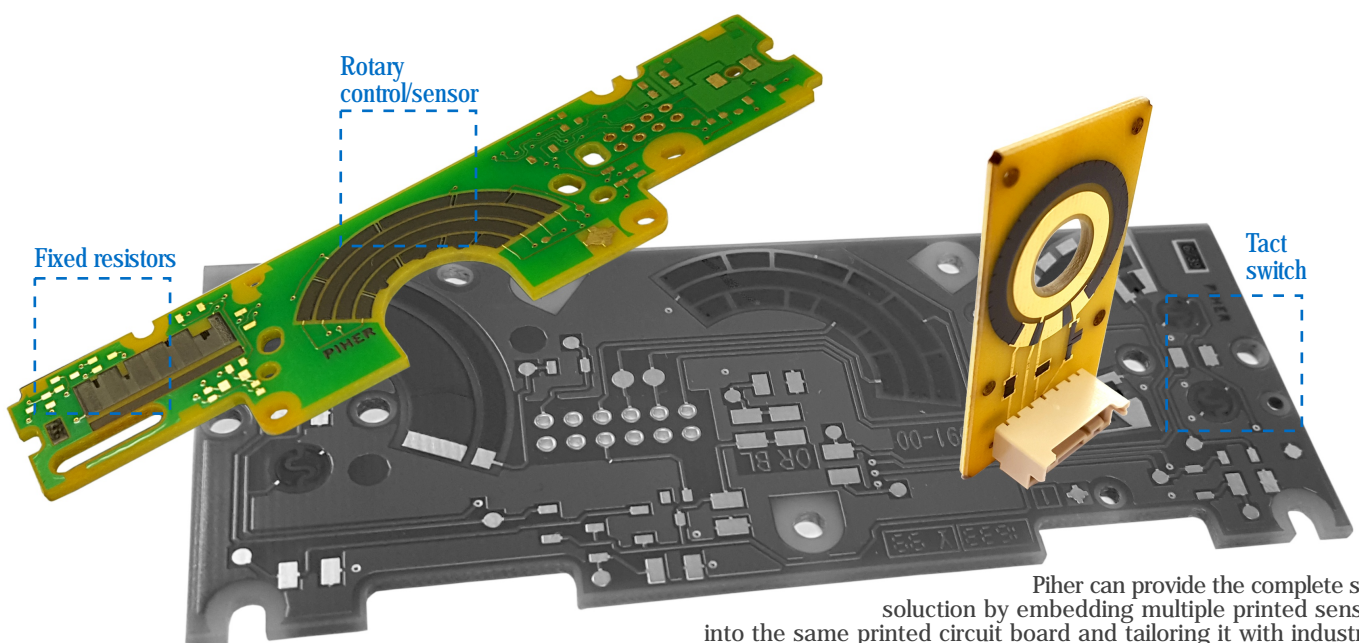
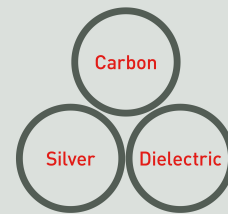
Down to a fine  
art

# Printed PCB resistors



High volume, **low tolerance**  
printed PCB resistors

Carbon printing at the **cutting edge**  
of **laser-trimming** technology



Piher can provide the complete sensor solution by embedding multiple printed sensors into the same printed circuit board and tailoring it with industry standard electronic components and connectors providing cost-saving due to lower overall part count. Special low cost carbon inks can replace nickel/gold plating or create crossover layers.

**IATF 16949 / ISO 140001 / ISO 9001**

# Automotive applications examples



Thanks to over 40 years of experience serving the key European Automotive OEM's and Component Suppliers, Piher has developed an expertise in providing custom Control and Sensor solutions unrivalled in today's Automotive sector.

This relationship has grown worldwide as customers have expanded their area of activity to serve the global market, yet still demanding the same level of quality and service; that is why they count on Piher.

Power sunroof / Convertible hood

Rear-view mirror actuator feedback

Window position

Mirror Memory

HVAC air flap position sensor

Headlamp Leveling / AFL

Door Position

Seat Heating & Memory

Head Restraint / Recliner / Lumbar Position

Gear select

Throttle position / air-intake valve

Liquid level

Windshield wiper delay

Steering column module

Suspension & chassis height

Pedals

Other typical applications for automotive:  
Headlamp levelling control / Interior Lighting controls /  
Infotainment controls / Instrument panel dimming controls /  
Traction control / HVAC controls / Airbag enable-disable /  
Tachograph mode switch / Navigation system function select /  
Anti-collision radar / Anti-pinch sensor /  
Aided parking

