

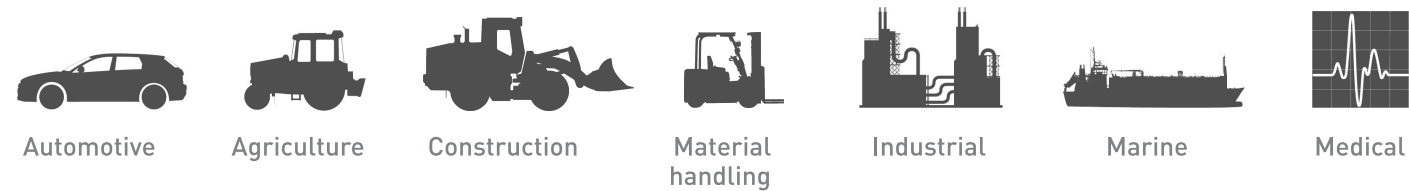
PIHER
SERVICE

Ever closer

Collaborative solutions
that really fit your
purpose



INDUSTRY SECTORS



PIHER

Hall-effect
contactless sensors

It all revolves around our thinking

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rev04



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



	PSC-360U	PSC-360	PSC-360IC
Output	Analog (ratiometric), PWM, SPI	Analog (ratiometric), PWM, SPI	Analog (ratiometric), PWM, SPI
Resolution	Analog/PWM: 12 bits Serial (SPI): 14 bits	Analog/PWM: 12 bits Serial (SPI): 14 bits	Analog/PWM: 12 bits Serial (SPI): 14 bits
Linearity	±1% absolute (0.5% upon request)	±1% absolute (0.5% upon request)	±1% absolute (0.5% upon request)
Supply voltage	5V - 12V - 15V	5V - 12V - 15V	5V - 12V - 15V
Supply current	Typ 8.5mA for single version, Typ 17mA for redundant version	Typ 8.5mA for single version, Typ 17mA for redundant version	Typ 8.5mA for single version, Typ 17mA for redundant version
Voltage protection	+10V over voltage protection and –10V reverse voltage protection	+10V over voltage protection and –10V reverse voltage protection	+10V over voltage protection and –10V reverse voltage protection
Rotational life	Up to 50M cycles	Up to 50M cycles	Up to 50M cycles
Switch output	Yes, programmable	Yes, programmable	Yes, programmable
Angular range	Up to 360° (no dead band)	Up to 360° (no dead band)	Up to 360° (no dead band)
Redundancy	Yes	Yes	Yes
Diameter size	Shaft: 6.35mm	Shaft: 6mm	Shaft: 6mm
Mounting	Flange/PCB	Flange/Fly lead harness	Flange/Metripack 150.2
Sealing	IP67	IP67	IP67

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



	PST-360	MTS-360	MTS-360PCB
Output	Analog (ratiometric), PWM, SPI	Analog (ratiometric), PWM, SPI	Analog (ratiometric), PWM, SPI
Resolution	Analog/PWM: 12 bits Serial (SPI): 14 bits	Analog/PWM: 12 bits Serial (SPI): 14 bits	Analog/PWM: 12 bits Serial (SPI): 14 bits
Linearity	±1% absolute (0.5% upon request)	±1% absolute (0.5% upon request)	±1% absolute (0.5% upon request)
Supply voltage	5V - 12V - 15V	5V	5V
Supply current	Typ 8.5mA for single version, Typ 17mA for redundant version	Typ 8.5mA for single version, Typ 17mA for redundant version	Typ 8.5mA for single version, Typ 17mA for redundant version
Voltage protection	+10V over voltage protection and –10V reverse voltage protection	+20V over voltage protection and –10V reverse voltage protection	+20V over voltage protection and –10V reverse voltage protection
Rotational life	Up to 50M cycles	Up to 50M cycles	Up to 50M cycles
Switch output	Yes, programmable	Yes, programmable	Yes, programmable
Angular range	Up to 360° (no dead band)	Up to 360° (no dead band)	Up to 360° (no dead band)
Redundancy	Yes	Yes	Yes
Diameter size	Hollow shaft: 14mm or 17mm	Hollow shaft: 4mm	Hollow shaft: 4mm
Mounting	Flange/Fly lead harness	SMD mount	Flange/Molex connector
Sealing	IP67 (electronics)	IP50	IP50

Revolutionary thinking

Play resistant

Our unique **custom** touchless **variable gap** sensor maintains stable electrical output and specified linearity on mobile shafts despite variation in radial and axial movement in an application’s service life.

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



Output	Analog (ratiometric), PWM, SPI
Resolution	Analog/PWM: 12 bits Serial (SPI): 14 bits
Linearity	±1% absolute (0.5% upon request)
Air-gap	3 ± 2mm
Supply voltage	5V ±10%
Supply current	Typ 8.5mA for single version, Typ 17mA for redundant version
Voltage protection	+10V over voltage protection and –10V reverse voltage protection
Rotational life	Virtually unlimited
Switch output	Yes, programmable
Angular range	Custom
Redundancy	Yes
Sealing	Up to IP69

Touchless variable airgap sensor.

Custom solution only.

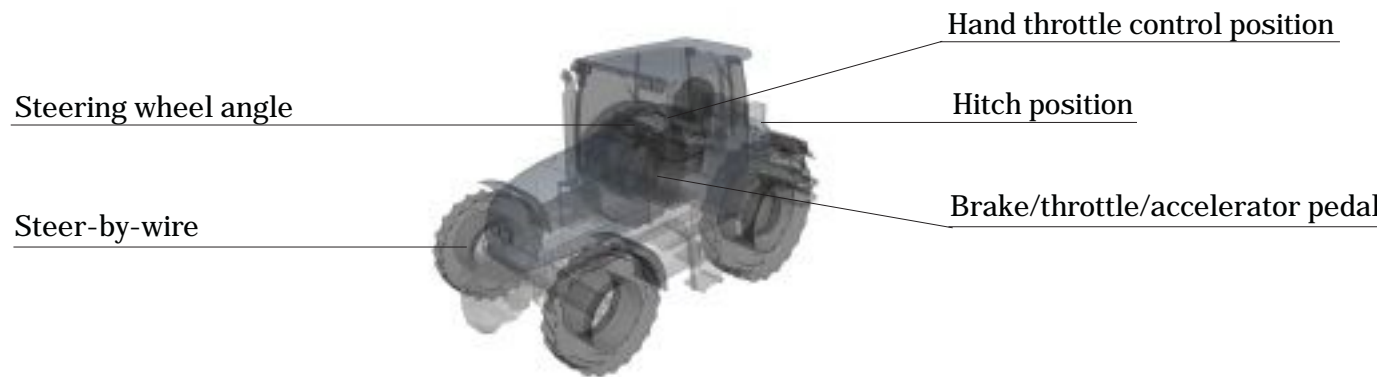
The touchless variable air gap sensor creates immunity to radial and axial play on mobile shafts where significant misalignment results in poor operational performance and labour intensive maintenance programmes.

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 hitch arms, and the electronics module to the chassis (or vice versa).

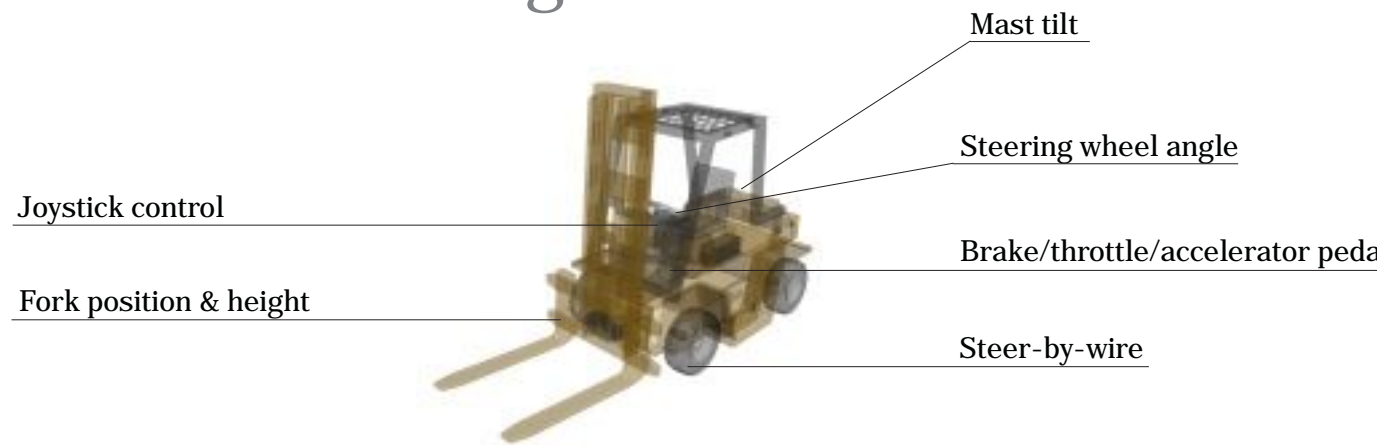
Here, Piher separates the magnet from the electronics module.



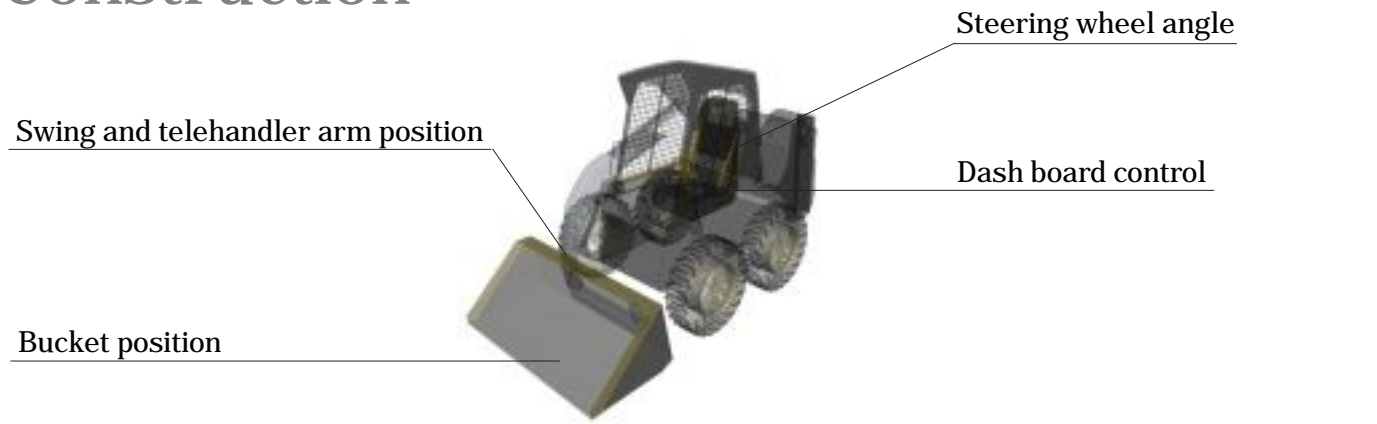
Agriculture & Forestry



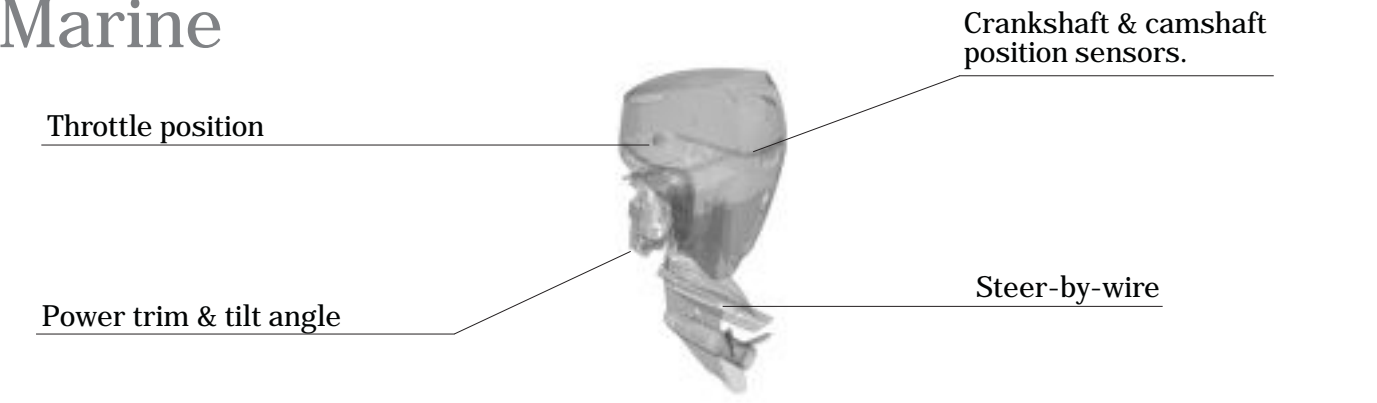
Material handling



Construction



Marine



The Netherlands



Elektrostraat 17
NL-7483 PG Haaksbergen

T: +31 (0)53 573 33 33
F: +31 (0)53 573 33 30
E: nl@texim-europe.com

Belgium



Zuiderlaan 14 bus 10
B-1731 Zellik

T: +32 (0)2 462 01 00
F: +32 (0)2 462 01 25
E: belgium@texim-europe.com

UK & Ireland



St. Mary's House, Church Lane
Carlton Le Moorland
Lincoln LN5 9HS

T: +44 (0)1522 789 555
F: +44 (0)845 299 22 26
E: uk@texim-europe.com

Nordic region



Sdr. Jagtvej 12
DK-2970 Hørsholm

T: +45 88 20 26 30
F: +45 88 20 26 39
E: nordic@texim-europe.com

Germany North



Bahnhofstrasse 92
D-25451 Quickborn

T: +49 (0)4106 627 07-0
F: +49 (0)4106 627 07-20
E: germany@texim-europe.com

Germany South



Martin-Kollar-Strasse 9
D-81829 München

T: +49 (0)89 436 086-0
F: +49 (0)89 436 086-19
E: germany@texim-europe.com

Austria



Warwitzstrasse 9
A-5020 Salzburg

T: +43 (0)662 216 026
F: +43 (0)662 216 026-66
E: austria@texim-europe.com

General information



info@texim-europe.com
www.texim-europe.com