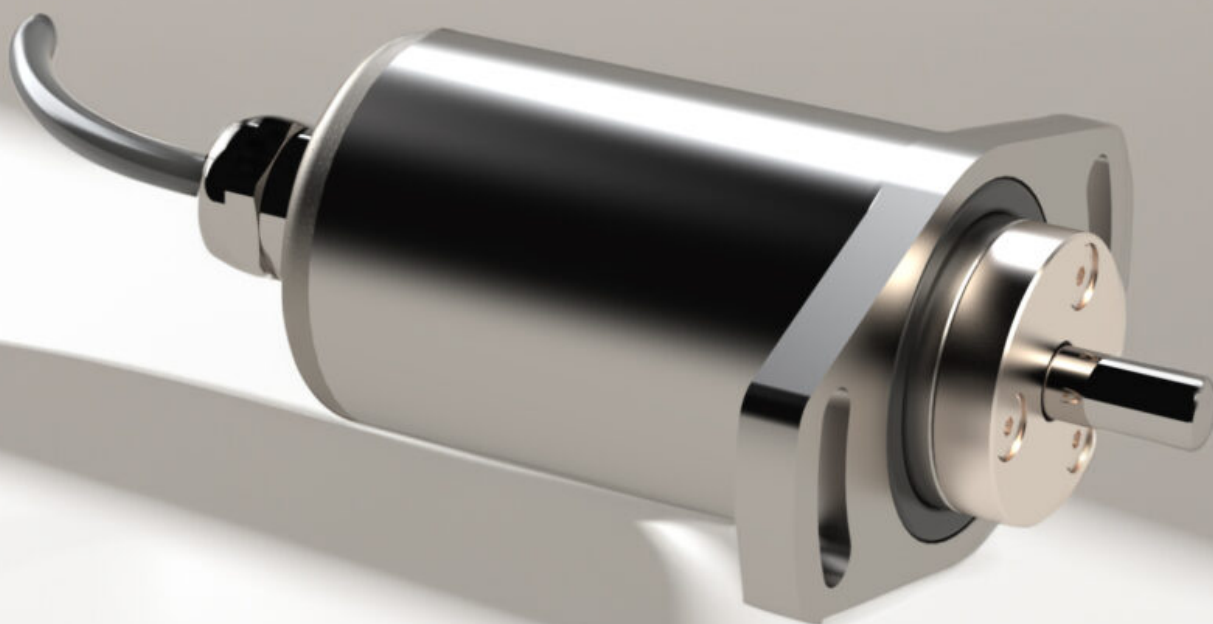
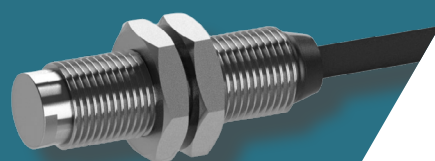


PRODUCT BROCHURE



ABOUT VARIOHM GROUP

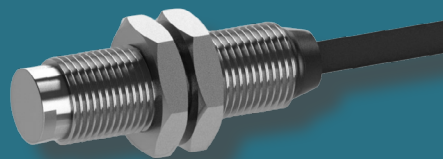
We are a group of companies dedicated to delivering top-tier engineering solutions. By combining our strengths, we offer innovative sensing, switching, measurement, calibration and motion control solutions to customers worldwide. Our expertise covers a wide range of industries and sectors including, but not limited to, industrial, medical, transport, renewable energy and security.

Our Businesses

Each company in Variohm Group brings its own unique skills, knowledge and experience to the table. It is this insight that allows us to partner with our customers to create custom solutions that exceed expectations.

We have in-house engineering and manufacturing teams and prioritise a customer-centric approach. Our blend of specialist knowledge, experience and fresh ideas helps us respond quickly to our customers' needs.

With a wide range of complementary products and services, we offer expert guidance and deliver solutions tailored to each project.



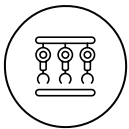
GLOBAL SENSOR AND MEASUREMENT SOLUTIONS

A global manufacturer of components for sensing, measuring and controlling temperature, movements, pressure, force, position, load, weight and incline.

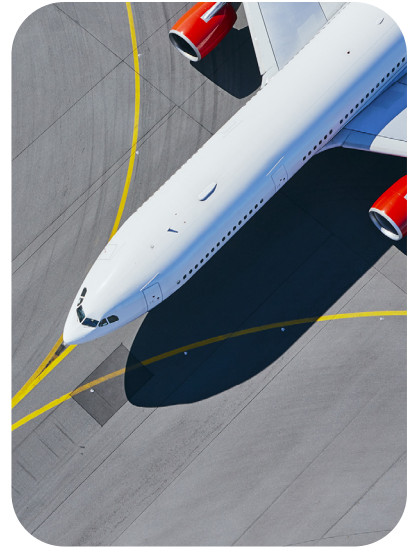
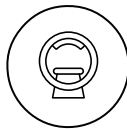
OUR MARKETS



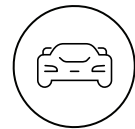
INDUSTRY



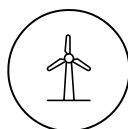
MEDICAL



TRANSPORT



ENERGY



SECURITY



PRODUCT OVERVIEW

POSITION SENSORS

LINEAR POTENTIOMETERS



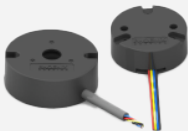
- 0-10...3000 mm measurement range
- Temperature range -40...150°C (175°C short term)
- Sealing up to IP67

ROTARY HALL EFFECT SENSORS



- 0-30°...360° angle measurement range
- Temperature range -40...150°C
- Full contactless versions available

MAGNETIC ENCODERS



- Kits and modules
- Low and High Resolution
- Full contactless versions available

LINEAR INDUCTIVE SENSORS



- 0-2...1500 mm measurement range
- Sealing up to IP68 (submersible version to 3500m)
- Intrinsically safe versions with ATEX, IECEx and CSA approval

CABLE EXTENSION TRANSDUCERS



- 0-38mm...43m measurement range
- Sealing up to IP68 (submersible version to 3000m)
- Intrinsically safe versions with ATEX/IECEX/SIL2 ratings approval

ROTARY INDUCTIVE SENSORS



- Available in any measurement angle up to 360° (e.g. 71°)
- Sealing up to IP68 350 Bar (submersible version)
- Intrinsically safe versions with ATEX, IECEx and CSA approval

INCLINOMETER



- 0-30°...360° tilt angle measurement range
- Analogue, Digital output signals or as display
- Excellent stability

INDUCTIVE TILT SENSORS



- Up to 160° tilt angle measurement range
- Sealing up to IP68 350 Bar (submersible version)
- Intrinsically safe versions with ATEX, IECEx and CSA approval

MAGNETIC TILT SWITCHES



- Non-mercury RoHS compliant
- Fine, 11° tilt switching
- Omni-directional

PROXIMITY SENSORS



- Solid state and non-contact design
- Machined and molded housing
- For use with permanent magnet target

SPEED SENSORS



- Hall Effect sensors
- Machined and molded housing
- Use with multipole magnet wheel or trigger wheel

GEAR TOOTH SENSORS



- Solid state ferrous detecting device
- Machined and molded housing
- Self adjusting to target gear tooth wheel



PRODUCT OVERVIEW

POSITION SENSORS

BALL AND PLUNGER SWITCHES



- ▶ True waterproof solution over millions of cycles
- ▶ Full stainless steel
- ▶ From -40°C to 150°C

LIMIT SWITCHES



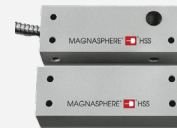
- ▶ True waterproof solution with actuator
- ▶ Custom actuator and mounting plate designs
- ▶ Different housing and rating options

MAGNETIC SWITCHES



- ▶ Robust, all-metal alternative to reed switches
- ▶ Normally open or closed directional proximity switch
- ▶ Range custom biased for the application

SECURITY SWITCHES



- ▶ Highest security ratings (UL634 Levels 1 and 2)
- ▶ Armored surface-mount or concealed forms
- ▶ Fire-door rated (UL10c) door position switches

MOTION DETECTORS

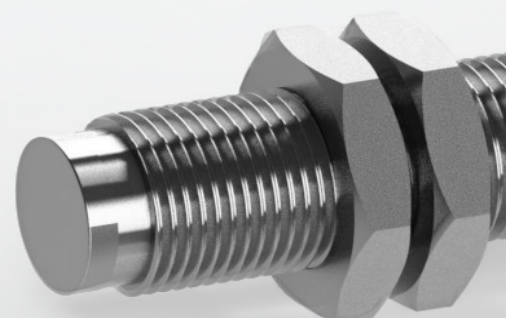


- ▶ Intelligent FMCW Radar
- ▶ Filters out motion nuisances
- ▶ Relay or POE (open API) output

ANTI CLIMBING SYSTEM FOR FENCES

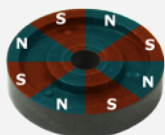


- ▶ Suitable for any metal fence types
- ▶ Accommodates environmental disturbances
- ▶ 3-axis MEMS technology



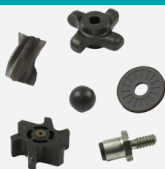
MAGNETS

MULTIPOLE MAGNET RINGS



- Radial and Face multipole magnet rings
- Tight tolerances on pole location
- Multiple magnetic material mixes for different field strengths

CUSTOM MOLDED MAGNETS



- Injection moulding with custom forms
- Several alloy compositions available
- Temperature capability up to over 150°C is possible

PROXIMITY TARGET MAGNETS



- Using a proprietary high energy Neodymium -Iron-Boron compound
- Slide by or head on models
- Standard models are axially magnetised

TEMPERATURE SENSORS

NTC THERMISTORS



- Temperature ranges up to 250°C
- High accuracy versions
- Tolerances between $\pm 0.1^\circ\text{C}$ over 0-70°C range and 1% at 25°C

RTD ELEMENTS



- Temperature ranges up to 500°C, Cryogen version down to -200°C
- Typical PT100, PT1000; others on request
- Accuracy class A (F0.15) and B (F0.3)

PRODUCT OVERVIEW

TEMPERATURE SENSORS

TEMPERATURE PROBES



- Temperature ranges from -96°C up to 350°C
- RTD or NTC based probes
- Custom housings

TEMPERATURE TRANSMITTERS



- Temperature range -40...150°C
- Analogue output signals
- Wide range of design options

TEMPERATURE SWITCHES



- Temperature ranges from -25°C up to +450°C
- Normally open / Normally closed versions
- Self holding resistor version

CURRENT SENSITIVE THERMAL SWITCHES



- Temperature range 40...150°C
- Normally closed
- Self holding resistor

TEMPERATURE SWITCHES FOR HARSH ENVIRONMENT



- Set point ranges from 0°F-650°F (-17.8°C-343°C)
- RTCA DO-160C environmental qualification
- Hermetically sealed

TEMPERATURE SWITCHES FOR HIGH RANGE TEMPERATURES



- Set point ranges from 0°F-1750°F (-17.8°C-954°C)
- RTCA DO-160C environmental qualification
- Different configuration and mounting options



PRESSURE SENSORS

INDUSTRIAL PRESSURE TRANSMITTERS



- ▶ 0-20 mbar up to 5000bar measurement range
- ▶ Analogue and digital output signals, incl. low energy
- ▶ Wide range of design options

MINIATURE PRESSURE TRANSMITTERS



- ▶ 0-600 mbar up to 500bar measurement range
- ▶ Diameter down to 12 mm
- ▶ Hermetically welded stainless steel construction

COMBINED PRESSURE- / TEMPERATURE TRANSMITTERS



- ▶ 0-0,6 bar up to 1000bar measurement range
- ▶ Temperature range -40...150°C
- ▶ Integrated or exposed temperature probe

DIFFERENTIAL PRESSURE TRANSMITTER



- ▶ 0-250 Pa up to 5000 Pa measurement range
- ▶ Accuracy between $\pm 1,5\%$ full stroke at room temperature
- ▶ PCB or DIN RAIL mount version

PRESSURE SWITCHES - LOW PRESSURE



- ▶ 0-7 PA up to 8,3 bar switching range
- ▶ Mechanical switching-based principle
- ▶ Up to 20 million operation cycles

PRESSURE SWITCHES - HIGH PRESSURE



- ▶ 0-0,3 bar up to 350 bar switching range
- ▶ Mechanical switching-based principle
- ▶ Up to 10 Mio operation cycles



PRODUCT OVERVIEW

LOAD & FORCE

S - TYPE LOAD CELLS



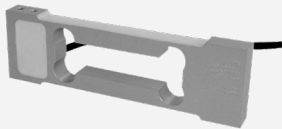
- 0-25kg up to 30t
- Accuracy class C3 and C4
- Alloy steel and stainless-steel construction

SHEAR BEAM LOAD CELLS



- 0-5kg up to 30t
- Accuracy class C3 and C4
- Alloy steel and stainless-steel construction

PLATFORM LOAD CELLS



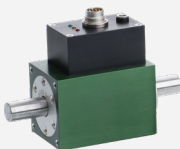
- 0-0,3kg up to 500kg
- Accuracy class C3, C4 and C5
- Aluminium or stainless-steel construction

COMPRESSION LOAD CELLS



- 0-60kg up to 200t
- Accuracy class C3, C4 and C5
- Stainless-steel construction

TORQUE SENSOR



- 0,01-5000 Nm measurement range
- Rotating and non-rotating sensors
- Relative non-linearity $\leq \pm 0,05$ % F.S.

MINIATURE AND PRECISION LOAD CELLS



- Wide range of measuring ranges up to 1 MN
- Highest accuracy up to a relative non-linearity of 0,035% F.S.
- Wide range of types: tension, compression, miniature, bending beam, multi-component

FOOT SWITCHES

GENERAL FOOT SWITCHES



- Plastic and metal housing
- Wide range of colour and logo options
- Different switch functions

INDUSTRIAL FOOT SWITCHES



- Single and multi pedal
- Safety relevant functions
- Emergency stop versions

MEDICAL FOOTSWITCH DESIGN PLATFORM



- Modular product line
- Wide range of colour and logo options
- Medical standard UL 60601-1 Approved

BLUETOOTH MEDICAL FOOTSWITCHES



- Single and multi pedal
- Redundant functions
- Medical standard UL 60601-1 Approved Wireless System

HAND CONTROLS

ELECTRICAL HAND CONTROLS



- Different housing models
- Low power switching and USB output
- Medical standard UL 60601-1 Approved

INFRARED HAND CONTROLS



- Plastic or robust aluminium housing
- Standard up to 8 functions
- Safe line of sight operation



PRODUCT OVERVIEW

HAND CONTROLS

INFRARED NONCONTACT SWITCH



- Plastic or robust aluminum housing
- Different switch functions
- Factory adjustable activation range

WATERPROOF SWITCHES



- True waterproof solutions
- Momentary and latching function
- From -65°F(-53°C) to +221°F (105°C)

AIR OPERATED CONTROLS

AIR OPERATED HAND CONTROLS



- Up to 6 switching channels
- Wide range of colours and symbols
- Ideal for high humidity environments

PNEUMATIC FOOTSWITCHES



- Plastic or metal housings
- Ideal for wet environments
- For use with Herga air switches

ACCESSORIES FOR PNEUMATIC SYSTEMS



- Up to 6 switching channels
- Wide range of colours and symbols
- Ideal for high humidity environments

AIR SWITCHES



- UL-CSA-approved versions available
- Various port size & orientation
- Momentary and latching

INSTRUMENTATION AND ANCILLARY EQUIPMENT

SENSOR ELECTRONICS



- High-precision indicators and amplifiers for sensors and norm signals
- Fieldbus, digital and analog output
- Cabinet or inline housing (IP65)

MEASUREMENT AND TEST DEVICES



- X/Y monitoring of industrial processes
- High-speed resistance measurement
- Battery measuring modules

CALIBRATION DEVICES FOR MECHANICAL VALUES



- Supported sensors: Strain gauge, normalized signal ± 5 V, ± 10 V, potentiometric sensors
- Storage of up to 16 measurement programs
- Data logger for up to 30,000 measurements

CALIBRATION SOURCES FOR TEST BAY AND LAB

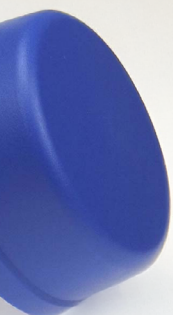


- DC voltage ± 100 nV ... ± 100 V
- DC current ± 100 nA ... ± 50 mA
- 12 thermocouple types (accuracy from ± 0.1 K)

CALIBRATION INSTRUMENTS FOR RTD AND RESISTANCE



- Resistance range: 10 m Ω ... 1.2 M Ω (accuracy from ± 0.003 % $+3$ m Ω)
- Pt100...Pt1000 and Ni100...Pt1000 (accuracy from ± 0.02 °C)
- Temperature coefficient: from <1 ppm/K



OUR CORE SERVICES



In-House Engineering - Our engineering team develops solutions to complex sensing and switching challenges. Rigorous testing and compliance with applicable industry standards means we can create and refine custom solutions, taking them from concept to full implementation.



New Product Development - We are a strategic partner for many of our customers, acting as an extension to their in-house engineering team. Whether it's detailed product designs, prototypes or finished components, we offer a complete new product development solution that helps our customers maintain their competitive edge.



Product Customisation - Working together with our customers ensures we understand what they need. We can customise products from our standard range to ensure they are a perfect fit.



On-Site Manufacturing - We have manufacturing facilities in the UK, Germany, Hungary and the USA which gives us control over production. Strict quality controls and the flexibility to adjust products and production timescales mean we reduce waste and build long-term relationships with our customers.



Industry-Leading Supply Partners - By working with trusted suppliers who meet strict standards, we can consistently offer top-quality products and services that are often leading the way in innovation. Our close and collaborative partnerships enable us to create the best solution for your needs.



Accreditations - Businesses within Variohm Group hold a wide range of accreditations including ISO14001, ISO9001, ISO45001, ISO13485 and ISO 17025. These certifications demonstrate our commitment to operating at the highest standards across all facets of our business.

OUR BUSINESSES



SPECIALISES IN:

- Load and Force
- Torque Sensors
- Displacement Sensors
- Pressure Transducers
- Sensor Electronics
- Measurement & Test Devices



✉ info@burster.de
 ☎ +49 (0) 7224 6450
 🌐 www.burster.com



SPECIALISES IN:

- Linear Position Sensors
- Thermal Switches
- Waterproof Switches



✉ sales@cpi-nj.com
 ☎ +1 973 887 9400
 🌐 www.cpi-nj.com



SPECIALISES IN:

- Position Sensors
- Pressure Sensors
- Temperature Sensors
- Encoders
- Load and Force
- Motorsport Sensors



✉ info@variohmgroup.com
 ☎ +44 (0) 1327 351004
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SPECIALISES IN:

- Motion Control Solutions
- Motors
- Drives
- Actuators
- Gearboxes



✉ sales@heason.com
 ☎ +44 140 379 2300
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INDUSTRY



MEDICAL



TRANSPORT



ENERGY



SECURITY

OUR BUSINESSES



SPECIALISES IN:

- Medical Footswitches
- Industrial Footswitches
- Pressure and Vacuum Switches
- Air Operated Switches
- Hand Controls



✉ sales@herga.com
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SPECIALISES IN:

- Position Sensors
- Vibration Sensors
- Torque Sensors
- Force and Load
- Instrumentation and Displays



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SPECIALISES IN:

- Overtemperature Protection
- Temperature Limiters
- Temperature Sensors
- Thermal Fuses
- Digital Keypads



✉ info@limitor.de
☎ +49 7181 483 900
🌐 www.limitor.de



SPECIALISES IN:

- Security Contacts
- Motion Sensors
- Switches
- Sensors
- Perimeter Security



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☎ +1 262 347 0711
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OUR BUSINESSES



SPECIALISES IN:

- Encoders
- Magnetic Sensors
- Gear Tooth Sensors
- Sensor Magnets
- Custom Multi-Pole Molded Magnets



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🌐 www.phoenixamerica.com



SPECIALISES IN:

- Linear Position Sensors
- Rotary Position Sensors
- Tilt Sensors
- Submersible, Waterproof Sensors
- ATEX and IECEx Approved Intrinsically Safe Sensors



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