



Providing Electronic Solutions

Specialists in Switching,
Sensing, Hermetic Seals
& Resistive Products.



We want to hear about your design problems...

- Leading global provider of specialist switching, sensing, hermetic seal and resistive solutions
- In-house product engineering and design capabilities
- Production facility enabling rapid prototyping of custom parts
- Over 60 years of application experience

About Willow Technologies Limited

Willow, founded in 1989, provides solutions to customers by designing, manufacturing and supplying components and systems to the electrical and electronic marketplace across the globe. Specialists in switching, sensing, resistive and hermetic seal solutions, the company has a wide portfolio of technologies and over 60 years of application experience.

With an in-house engineering capability and a production facility for rapid prototyping of custom parts, the company is well equipped to develop products matching customer specific application requirements. Willow is ISO9001:2000 registered.



MEMS Accelerometers

- $\pm 1g$ to $\pm 10g$, 3 axis XYZ
- Analogue & digital outputs (SPI, I2C)
- Small size 3x3x0.9mm LGA & DFN package
- High performance $<45\mu g / Hz$
- Low power $<1mA$ operating $<5\mu A$ standby



MEMS Gyroscopes

- $\pm 50^\circ/sec$ to $\pm 1500^\circ/sec$
- Analogue & digital outputs (SPI)
- User configurable rate range & bandwidth
- Wide operating temperature range -40 to $+125^\circ C$
- High bandwidth for dynamic applications



Geo - Magnetic Sensors

- $\pm 300\mu T$ range with $0.6\mu T / count$ resolution
- 3 axis XYZ, digital (I2C) output
- Small size 2x2x1.0mm WLCSP package
- Automatic powerdown
- 3 pins included for XYZ accelerometer inputs



Electronic Compass Modules

- Tilt compensated heading, full 360° of rotation
- Heading accuracy down to $0.3^\circ rms$
- Pitch & roll accuracy down to $\pm 0.2^\circ$
- Digital output via RS232 & NMEA0183
- Built in Hard Iron & Soft Iron calibration



Motion Switches & Sensors

- Vibration, Tilt, Tip-over
- G-Force
- Hermetically sealed
- Small size & weight
- Long life, low cost



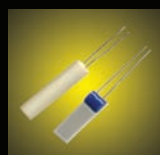
Inclinometers

- $\pm 180^\circ$ roll & $\pm 90^\circ$ pitch range
- Single & dual axis (roll & pitch)
- Analogue & digital RS232 outputs
- Programmable resolution, & settling time
- High accuracy $\pm 0.2^\circ$, temperature compensated



Inertial & Navigation Units

- GPS aided inertial systems (NAV, AHRS, VG, IMU)
- MEMS & FOG technologies
- General Aviation Certified FAA TSO C4c & C6d
- Qualified DO-160D & DO-178B Level C
- RS232 & ARINC 429 interfaces



Temperature Sensors

- Platinum thin film RTD's
- NTC & PTC leaded & SMD thermistors
- Thermopiles (customised window filters)
- PTC heaters
- PIR sensors



Humidity Sensors

- Humidity & temperature on a single SMD chip
- $\pm 2\%$ accuracy, 20-80%RH, factory calibrated
- $\pm 1^\circ C$ temperature accuracy
- Analogue & digital interfaces
- 0-100% RH range over -50° to $150^\circ C$ operating



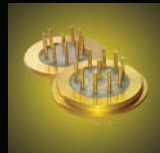
Pressure Sensors

- $-100KPa$ to $+1000KPa$ range
- Pre-amplified, pre-calibrated & pre-compensated
- Small size SMD packages
- Gauge, absolute & differential types
- Gases & liquid media



Wireless Sensor Networks

- 2.4GHz ISM band
- IEEE 802.15.4 / Zigbee
- Ad-hoc mesh networking
- Development kits
- Custom modules



Hermetic Seals

- Compression & Matched types
- Ceramic-to-Glass bonding
- Metal-to-Metal brazing
- Glass-to-Metal sealing
- Single & multiple pin, Feed-throughs



Relays - Automotive

- High Current, up to 100A
- 12VDC and 24VDC operation
- Mounting options, including PCB
- DC motor control
- Low cost



Relays - PCB Power

- Up to 45A / 230VAC
- Wide selection of voltage and current capabilities
- Miniature & SMD versions
- Industry standard styles
- Solid-state relays up to 30A, 1 phase & 3 phase

Our Mission

“Our organisation is focused upon solving customer problems centred around the core technologies of switching, sensing and resistive devices and their packaging. We develop long term relationships with our customers and suppliers to provide the highest quality products & services exceeding the needs of our partners. We practise integrity and fairness in all that we do. We are an independent resource of product & knowledge, available as a key member of our partners operations from concept to delivery and beyond. We are a growth orientated, profitable organisation, re-investing to maintain a position of financial strength ensuring that we continue to expand upon the products and services we offer today.”

...for more information
please visit our website
www.willow.co.uk



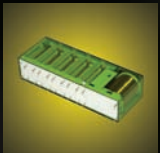
Relays - Industrial

- Interface relays - DIN rail mounting
- Relays & contactors up to 400A
- Solid-state relays
- DIN rail & chassis sockets
- Custom versions



Relays - Signal, RF & Military

- Sub-miniature telecommunication styles
- Hermetically sealed, DC to 3GHz
- High temperature and vibration resistance
- Latching relays
- Solid-state relays



Relays - Safety

- Force guided relays
- High current switching - up to 16A / 230VAC
- Up to 10 Contacts
- Industry leading styles
- Industry smallest and lowest height



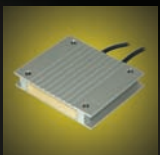
Co-axial Switches

- RF, Broadcast, Military, & Avionics
- DC to 26.5GHz, SPDT to SP8T
- High quality - Latching or Failsafe
- Hermetic sealed - indicators and cutoffs available
- Custom Matrices



Timers & Monitoring Relays

- Multi-Function, Multi-Time ranges
- 1 & 3 phase voltage monitoring - phase and sequence
- Star Delta Start-up, with adjustable times
- AC/DC current monitoring
- Motor temperature



Resistors - Power

- Resistance values from 0.001-1M Ω
- Power rating from <0.5W up to +2.5kW
- Tolerances to +/-0.01%
- Temperature coefficients to <1ppm/ $^{\circ}$ C
- Leaded, SMD, Heatsink & custom designs available



Resistors - Precision

- Wirewound, Metal Film, Metal Foil
- Power rating up to +300W
- Tolerances to +/-0.005%
- Temperature coefficients to <1ppm/ $^{\circ}$ C
- Leaded, SMD, Heatsink types available



Resistors - SMD

- SMD from 0201-7520 & Melf - Mini-Melf
- Resistance values from 0.001-10 T Ω
- Tolerances from +/-20% to +/-0.01%
- Temperature coefficients to <5ppm/ $^{\circ}$ C
- Voltages up to 3kV & wattage up to 30W



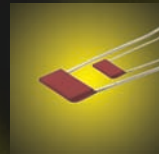
Resistors - High Voltage

- Wide range of values, tolerances, TCR's
- Voltages from <1kV up to +800kV
- Axial, Radial & SMD package types available
- Non-Inductive designs for HF applications
- Custom high energy & pulse capabilities



Resistors - Low Ohmic

- Resistance values from 0.0001-1 Ω
- Voltages up to 3kV & wattage up to 3W
- Tolerances to +/-0.01%
- Temperature coefficients to <1ppm/ $^{\circ}$ C
- 2 & 4 terminal for current measurement



Resistors - High Ohmic

- Resistance Values from 1K-100 T Ω
- Voltages up to 100kV & Wattage up to 150W
- Tolerances to +/-0.25%
- Temperature coefficients to <25ppm/ $^{\circ}$ C
- Leaded, SMD, Heatsink & custom designs





Providing Electronic Solutions



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