OUTER SPACE SOLUTIONS WITH DOWN-TO-EARTH APPLICATIONS

Explore our space products with land-based applications.

START THE JOURNEY

Honeywell

SPACE APPLICATIONS DELIVER EARTH APP BENEFITS

Honeywell aerospace sensors, switches and controls are designed to meet challenges – whether it is to meet military/commercial industry standards or excelling in unique high-performance environment applications. Our products are designed for the long haul — for the harshest conditions in the air, on the ground or deep underwater — with performance-grade switch and sensor technology meeting or exceeding the demands of ground systems and ordnance.

Achieving military approvals on our solutions brings a defined set of performance requirements common to the needs within the military, industrial, transportation and medical industries. Meaning, Honeywell military-approved products have consistent and exacting specifications for shock, vibration, thermal altitude, low-temp testing and endurance cycles specified over temperature.

Our products and expertise are complementary to systems and subsystem designs. Because of our advancements, high-quality products, and attention to specifications, space applications have been able to fly higher and farther, making Honeywell a key supplier within aerospace and defense industries. And these sensor and switch solutions can do the same for land-based applications, adding value and product assurance coupled with the Honeywell industry-wide expertise.

Honeywell

INSTALLED BASE
PEDIGREE & PMA

HONEYWELL EXTENSIVE EXPERIENCE WITH THE SPACE PROGRAMS STARTED IN THE 1950s.

AIR TRANSPORT AND REGIONAL

29 platforms
59 applications

18 platforms
24 applications

COMMERCIAL & MILITARY HELICOPTER

BUSINESS & GENERAL AVIATION

29 platforms
27 applications

8 platforms
8 applications

MILITARY GROUND VEHICLES

MISSILES & MUNITIONS

6 platforms
4 applications

23 platforms
45 applications

MILITARY AIRCRAFT

SPACE

9 platforms
12 applications

Honeywell

INTERNATIONAL SPACE STATION

21FW PROXIMITY SENSOR

Space Use: Detects that hatches have been closed, gear deployed, arms and panels retracted or extended.

LAND APPLICATIONS:

- Landing gear and hydraulics
- Rotary actuators and valves
- Cargo storage
- Doors on planes and ground vehicles

HM SERIES SEALED SWITCH

Space Use: Specified to the docking ring of the International Space Station to ensure capsule is mated to the airlock. Also, can be used to sense engine fuel valve position and select sensing applications inside spacecraft cabin.

LAND APPLICATIONS:

- Building controls and equipment
- Communication equipment
- Medical instrumentation
- Operator controls
- Doors and lifts
- Foot switches
- Float & power switches

MODEL 31 LOAD CELL

Space Use: Force feedback for low-impact docking station clamp.

LAND APPLICATIONS:

- Cable tension
- Electromechanical parts testing
- Factory process monitoring
- Test laboratory

3MS1 QPL PRECISION THERMOSTAT

Space Use: Used on Space X Dragon Crew Capsule that transports astronauts to the Space Station

LAND APPLICATIONS:

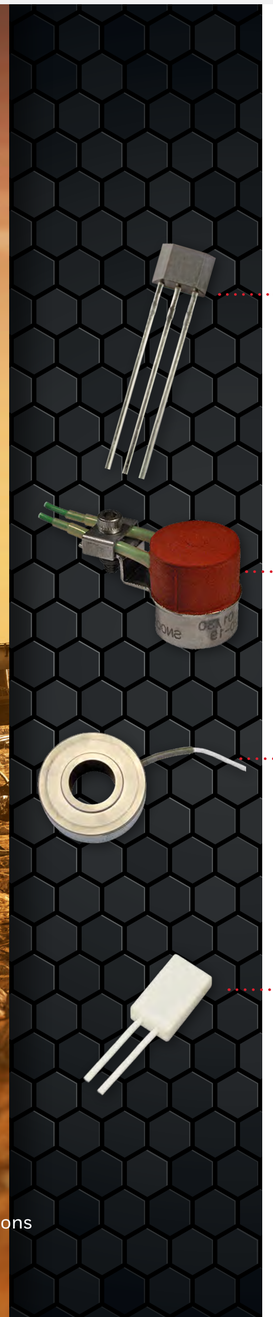
- Military vehicles and aircraft

DID YOU KNOW?

All capsules, regardless of nationality or origin, specify the MICRO SWITCH HM Series to the vehicle's docking ring.

Honeywell

MARS ROVER

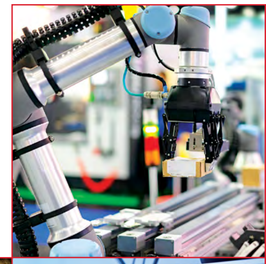


SS41 MAGNETIC SENSOR IC

Space Use: Designed in BLDC motors for commutation. There are several on the Rover.

LAND APPLICATIONS:

- Speed, RPM, tachometer
- Brushless dc motor commutation
- Robotics control
- Medical motor assemblies & dispensing control

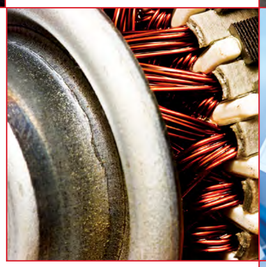


3200 SERIES THERMOSTAT

Space Use: Performs a variety of functions, including heater control and battery management, as well as found within the radio modules.

LAND APPLICATIONS:

- Information technology, telecom & communications
- Medical equipment
- Transportation and aircraft
- Radar



MODEL D LOAD CELL

Space Use: Force feedback for the Corer sample drill.

LAND APPLICATIONS:

- Bolt force measurement
- Clamping forces
- Factory process monitoring

HRTS THIN-FILM PLATINUM RTD

Space Use: Monitors external and internal temperatures throughout the Mars Rover.

LAND APPLICATIONS:

- Motor overload and semiconductor protection
- External temperature indication
- HVAC/R equipment
- Electronic assembly thermal management and temperature compensation

DID YOU KNOW?

There are close to 500 HRTS RTDs used all over the Mars Rover (Curiosity) as they are rated down to -75°C.

Honeywell

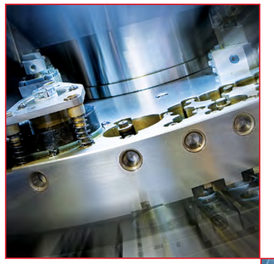
ORBITING SATELLITES

HRTS THIN-FILM PLATINUM RTD

Space Use: Monitors external and internal temperatures on the Europa Clipper satellite.

LAND APPLICATIONS:

- Motor overload & semiconductor protection
- External temperature indication
- HVAC/R equipment
- Electronic assembly thermal management



TEMPERATURE PROBES: 500 SERIES

Space Use: Performs a variety of functions, including solar array temperature sensing, crew climate control, battery pack & case temperature monitoring.

LAND APPLICATIONS:

- HVAC & refrigeration
- Air compressors & hydraulic systems
- Power generation
- Heavy-duty or sport vehicle engine oil & fuel
- Weather stations

MODEL 41 LOAD CELL

Space Use: Force calibration for dexterous robotic arms and robotic tools.

LAND APPLICATIONS:

- Tube mills and extruding processes
- Factory process monitoring
- Oilfield handling equipment

RESOLVER

Space Use: Accurately positions the solar panels and antenna for maximum performance.

LAND APPLICATIONS:

- Oncology equipment
- CNC/precision tooling
- Vehicle infrared systems
- Electro-optical systems

DID YOU KNOW?

The MICRO SWITCH HM Series sealed switch is on a satellite that orbits half-way between the earth and the moon?

Honeywell

ROCKET MISSILES

21FW PROXIMITY SENSOR

Space Use: Detects that hatches have been closed, gear deployed, arms and panels retracted or extended.

LAND APPLICATIONS:

- Landing gear
- Hydraulics
- Rotary actuators and valves
- Cargo storage
- Doors on planes and ground vehicles

3200 SERIES THERMOSTAT

Space Use: Performs a variety of functions, including heater control and battery management, as well as found within the radio modules.

LAND APPLICATIONS:

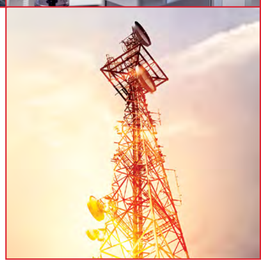
- Information technology, telecom & communications
- Medical equipment
- Transportation and aircraft
- Radar

RESOLVER & ARC POTENTIOMETER

Space Use: Accurately positions the fins on space vehicles and missiles.

LAND APPLICATIONS:

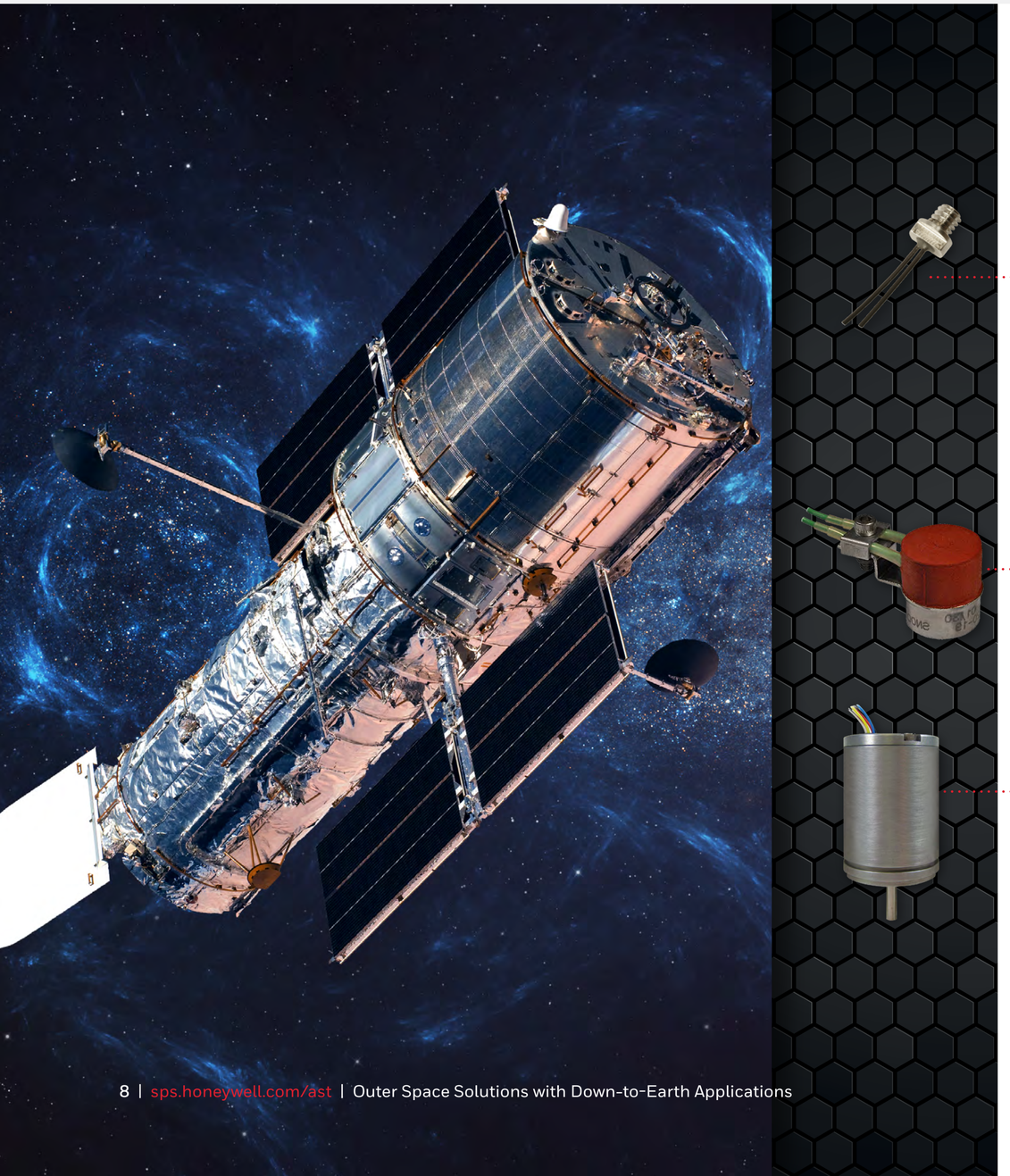
- Oncology equipment
- CNC/precision tooling
- Vehicle infrared systems
- Electro-optical systems
- Bucket and lift positioning



DID YOU KNOW?

Light-weight Honeywell arc potentiometers help the latest military missiles fly farther and more accurately.

Honeywell



TELESCOPES

TEMPERATURE PROBES: 500 SERIES

Space Use: Performs a variety of functions, including solar array temperature sensing and battery pack & case temperature monitoring.

LAND APPLICATIONS:

- HVAC & refrigeration
- Air compressors & hydraulic systems
- Power generation
- Heavy-duty or sport vehicle engine oil & fuel
- Aviation engine bleed air or environmental systems
- Weather stations

3200 SERIES THERMOSTAT

Space Use: Performs a variety of functions, including heater control and battery management, as well as found within the radio modules.

LAND APPLICATIONS:

- Information technology, telecom & communications
- Medical equipment
- Transportation and aircraft
- Radar

RESOLVER

Space Use: Accurately positions the solar panels and antenna for maximum performance.

LAND APPLICATIONS:

- Oncology equipment
- CNC/precision tooling
- Vehicle infrared systems
- Electro-optical systems

DID YOU KNOW?

In December 2021, the James Webb Space Telescope, jointly developed by NASA, Canada, and Europe, will launch. The plan is for it to succeed the Hubble Telescope.

Honeywell

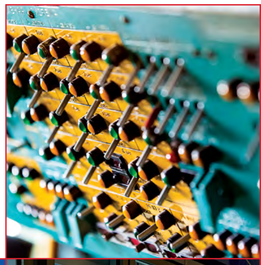
SPACE SUITS

MICRO SWITCH AT SERIES TOGGLE SWITCH

Space Use: Designed into the glove of an astronaut's space suit so he/she can activate the heater built into the suit

LAND APPLICATIONS:

- Cockpit pilot controls
- Military and commercial aviation
- Grain elevators
- Refrigeration
- Generators
- Applications where a Class 1, Div 1 switch is a requirement



DID YOU KNOW?

On space walks, the temperature fluctuates from -250°F to 250°F. Spacesuits with internal heating and cooling devices protect astronauts from these extreme temperature changes.

Honeywell

Dream Chaser photograph courtesy of NASA.

SPACE CRAFT

RESOLVER

Space Use: Accurately positions the solar panels and antenna for maximum performance. Exactly aligns the rudder on space vehicles and missiles.

LAND APPLICATIONS:

- Oncology equipment
- CNC/precision tooling
- Vehicle infrared systems
- Electro-optical systems

MICRO SWITCH TOGGLE & ROCKER SWITCHES

Space Use: Performs a variety of functions within the cockpit.

LAND APPLICATIONS:

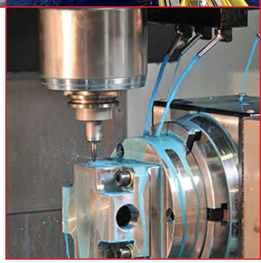
- Cockpit pilot controls
- Military and commercial aviation & transportation
- Grain elevators and agriculture applications
- Medical and industrial equipment
- Oil and gas

ARC POTENTIOMETER

Space Use: Exactly positions the fins on space vehicles and missiles.

LAND APPLICATIONS:

- Robotically assisted surgery equipment position
- Ground-based solar panel and satellite dish elevation and azimuth
- Aerial work lift platform, front end loader and digger/excavator boom position
- Bucket and lift positioning



DID YOU KNOW?

Honeywell switches and sensors have been a part of every NASA manned spacecraft mission for over 60 years.

Honeywell

For more information
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