

**ESCC QUALIFIED THERMISTOR DEVICES
FOR SATELLITE APPLICATIONS**



INTRODUCTION

MEAS Ireland (Betatherm) Ltd has been supplying the European space industry for over 20 years with flight model NTC thermistors. These parts have been ESCC qualified since 2001. MEAS have become the primary supplier of NTC thermistors to all the European Primary Contractors. This has been achieved by providing a superior product combined with unrivalled customer service.

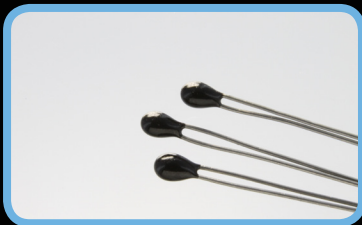
HIGH TEMPERATURE SURFACE PROBES (ESCC 4006014):



- Glass Encapsulated Beads
- Surface Mount
- Operating Temp.: -60°C to 160°C

| ESCC No. | MEAS Part No. | Resistance at 25°C (Ω) | ESCC Qualified |
|-----------|---------------|------------------------|----------------|
| 400601408 | G15K4D489 | 15000 | Yes |
| 400601409 | G10K4D453 | 10000 | |
| 400601410 | G2K7D411 | 2000 | No |
| 400601411 | G4K7D421 | 4000 | |
| 400601412 | G100K6D487 | 100000 | Yes |
| 400601413 | G15K4D589 | 15000 | |
| 400601414 | G10K4D451 | 10000 | No |

LEADED DISCRETE THERMISTORS (ESCC 4006013):



- Epoxy Coated
- Leaded discrete Thermistors
- Operating Temp.: -55°C to 115°C

| ESCC No. | MEAS Part No. | Resistance at 25°C (Ω) | ESCC Qualified |
|-----------|---------------|------------------------|----------------|
| 400601301 | 1K3A351 | 1000 | Yes |
| 400601302 | 2K3A352 | 2000 | |
| 400601303 | 3K3A353 | 3000 | |
| 400601304 | 4K3A354 | 4000 | |
| 400601305 | 5K3A355 | 5000 | |
| 400601306 | 10K3A739 | 10000 | |
| 400601307 | 100K6A441 | 100000 | |

LEADLESS GOLD CHIP THERMISTORS (ESCC 4006XXX):



- Leadless Gold Chips
- Surface Mount
- Operating Temp.: -40°C to 125°C

| ESCC No. | MEAS Part No. | Resistance at 25°C (Ω) | ESCC Qualified |
|-----------|---------------|------------------------|----------------|
| 4006XXX01 | 0.1K1CG583 | 100 | No |
| 4006XXX02 | 2.2K3CG479 | 2200 | |
| 4006XXX03 | 3K3CG503 | 3000 | |
| 4006XXX04 | 5K3CG517 | 5000 | |
| 4006XXX05 | 10K3CG1269 | 10000 | |
| 4006XXX06 | 10K4CG531 | 10000 | |
| 4006XXX07 | 100K6CG629 | 1000000 | |

SATELLITE MARKET

MEAS is a major supplier of qualified NTC Thermistors to the Satellite Market. The company is unique in that it has NASA / GSFC Qualification through MEAS Dayton and ESA / ESCC Qualification through MEAS Ireland (Betatherm) Ltd. In addition it also supplies Flight Heritage parts from its Pressure, Position, Platinum and Accelerometer divisions.

PRODUCT APPROVALS

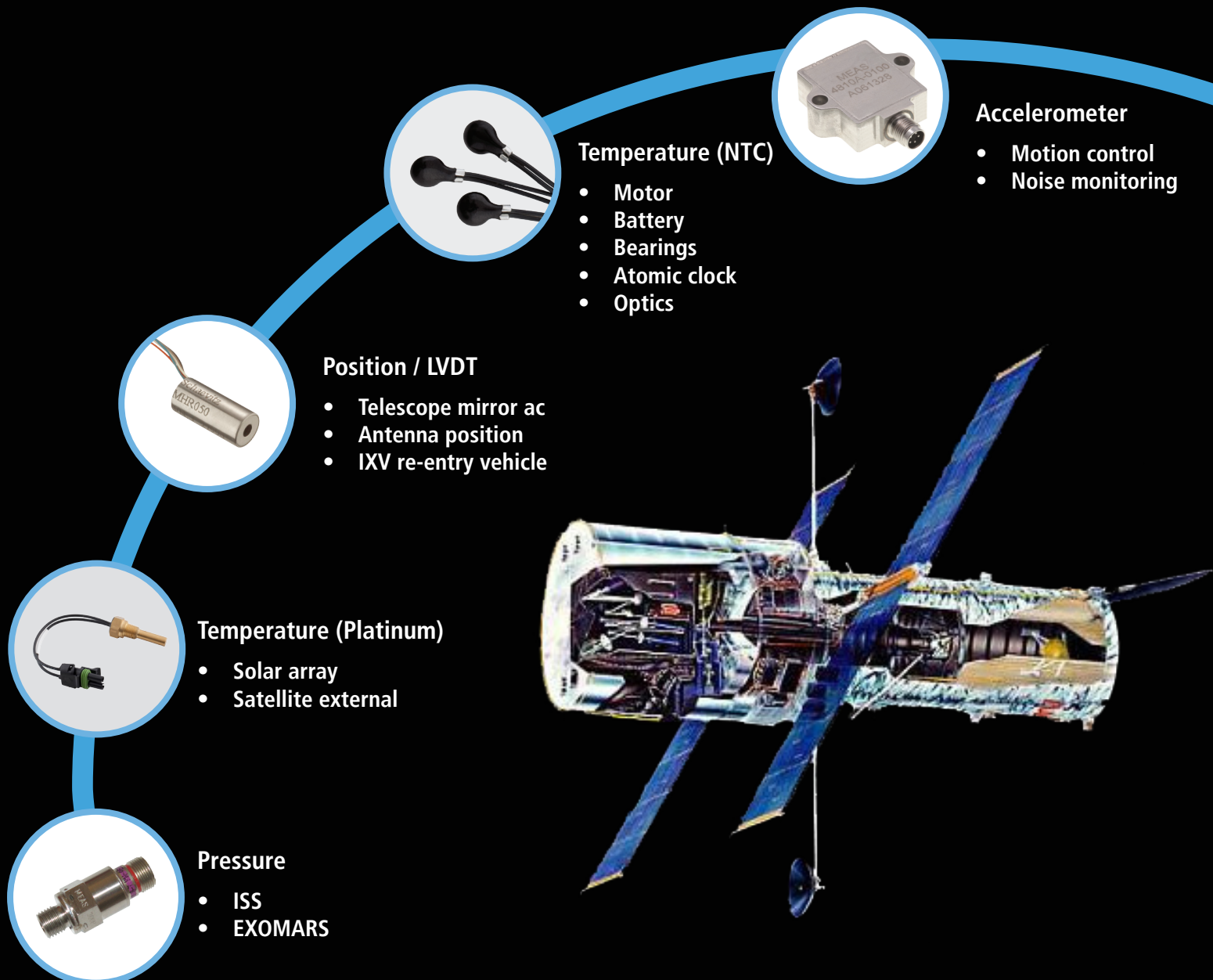
Our Aerospace and Hi-Rel products are qualified as follows:

- Goddard Space Flight Center S-311-P18
- ESCC Qualified 4006/013
- ESCC Qualified 4006/014

QUALITY SYSTEMS

In addition, Measurement Specialties has achieved the following standards:

- ISO 9001
- ISO 14001
- ISO 13485
- AS 9100



CUSTOMERS

- ALTER TECHNOLOGY-TUV NORD SAU
- ASTRIUM GMBH
- ASTRIUM LIMITED
- BOEING
- CNES
- EADS ASTRIUM
- ESA
- ISS RESHETNEV
- KAYSER THREDE
- MACDONALD, DETTWILER & ASSOCIATES
- MITSUBISHI SPACE
- NASA
- OHB SYSTEM AG
- RUAG SPACE AB
- SPACE SYSTEMS/LORAL
- SPECTRATIME INC
- SURREY SATELLITE TECHNOLOGY
- TESAT-SPACECOM GMBH & CO KG
- THALES ALENIA SPACE

SATELLITE PROJECTS

- ATV
- ARABSAT
- ASTRA
- ASTRIUM EUROSTAR
- BEPI COLUMBO
- COLUMBUS
- COSMO SKY - MED
- EARTHCARE
- ENVISAT
- EXOMARS
- GALILEO
- GLOBALSTAR
- HERSCHEL TELESCOPE
- HOT BIRD
- INTERNATIONAL SPACE STATION
- IRIDIUM
- LORAL
- MTG
- METEOSAT
- PLEIADES
- SARA
- SENTINEL
- SICRAL
- TAS SPACEBUS PLATFORM

ABOUT US

Measurement Specialties is a unique sensor business that combines the strengths and experiences of several merged sensor companies to resolve challenging physical measurement problems. Our products have a proud lineage from pioneering work of IC Sensors to MEMS technology and Schaevitz inductive position sensing.

During the last decade, we have significantly expanded our product offerings and enriched our technical capabilities through additional strategic acquisitions.

- Betatherm, Galway, Ireland
- YSI, Dayton, USA
- ATEXIS, Fontenay, France
- RTD Company, Minneapolis, USA
- Spectrum Sensors, St. Marys, USA
- ESCC / ESA Qualified.
- GSFC / NASA Qualified.
- Platinum / Thermocouple Probes.
- Platinum / Thermocouple Probes.
- NTC and PTC temperature sensors.

Today under the MEAS brand, our multinational workforce of 3000+ is dedicated to the design and manufacturing of sensors for customers in more than 60 countries.

We have design engineering and manufacturing locations strategically positioned around the globe in order to place resources close to our customers.

Global/North American Headquarters

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