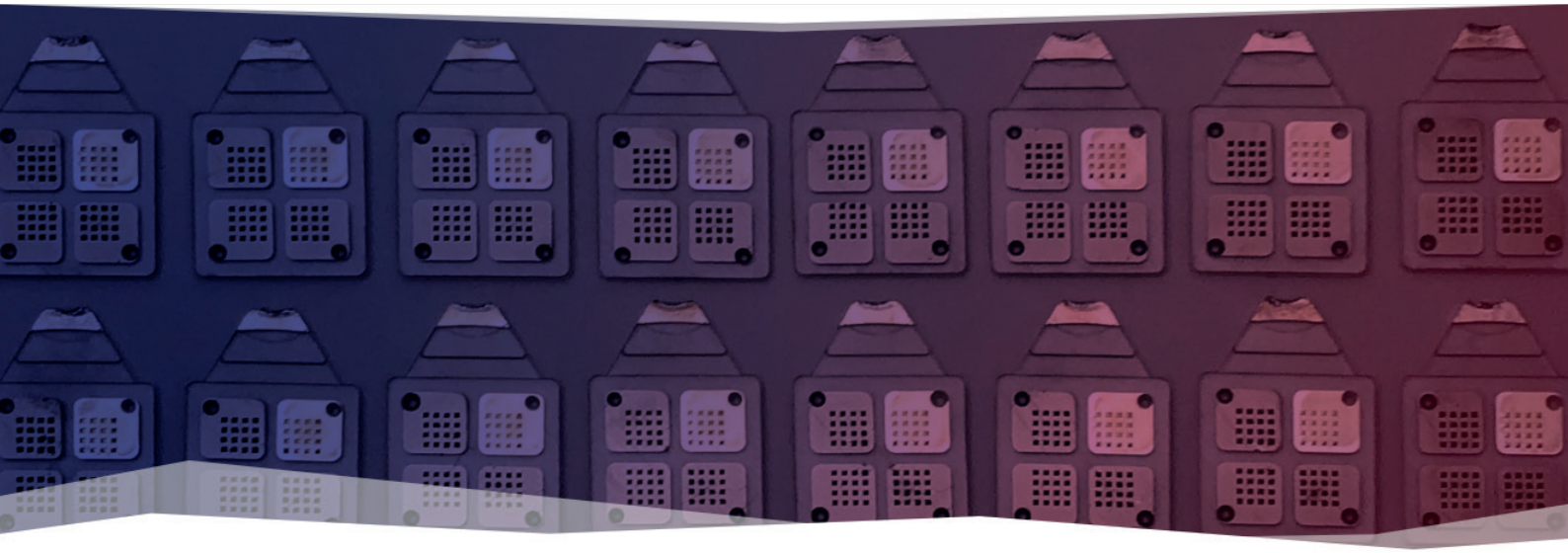
# TORR SCIENTIFIC LTD

**Specialists in UHV, Optical and X-Ray Components**

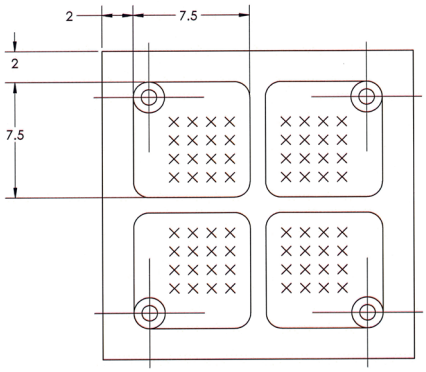
# Microspike Biosensors



The biosensors consist of a biological recognition element which are able to **specifically interact with a target molecule** and a transducer **able to convert this interaction into a measurable signal**. The coated devices can be **functionalised with extra coatings on top of the electrodes** depending on the target analyte. The biosensors are being **developed for closed-loop controllers for personalised precision dosing** of antimicrobial agents with applications in sports and wellbeing.

The Microspike biosensors are used as **minimally invasive sensors** with **4 arrays of 16 microspikes** each of which **can be used in measuring metabolites, biomarkers and drugs in the interstitial fluid**. The microspike substrate material is **polycarbonate**. The **metallic electrodes can be functionalised with other coatings**. When used for in situ sensing, the choice of functionalisation conditions depends upon the target analyte being sensed.

**The devices, developed by a team of scientists at Imperial College London**, have been **functionalised for sensing glucose, lactate and theophylline**. **Torr Scientific is processing coatings for biomedical sensors.**
The **electrode coating thickness is typically 150nm** and offered as **standard with a gold (3 electrodes) and silver (1 electrode)** version. The microspikes are **supplied in packs of 10 or 50** and supplied **complete with nuts and bolts for electrical connections. Uncoated polycarbonate microspike substrates are also available.**

If you'd like more information, please contact us at **sales@torrscientific.co.uk**

| Part Number | Coating | Pack Size | Price (excluding carriage & VAT) |
|---|---|---|---|
| MB-AUAG-10 | 3 x Gold, 1 x Silver | 10 | POA |
| MB-AUAG-50 | 3 x Gold, 1 x Silver | 50 | POA |