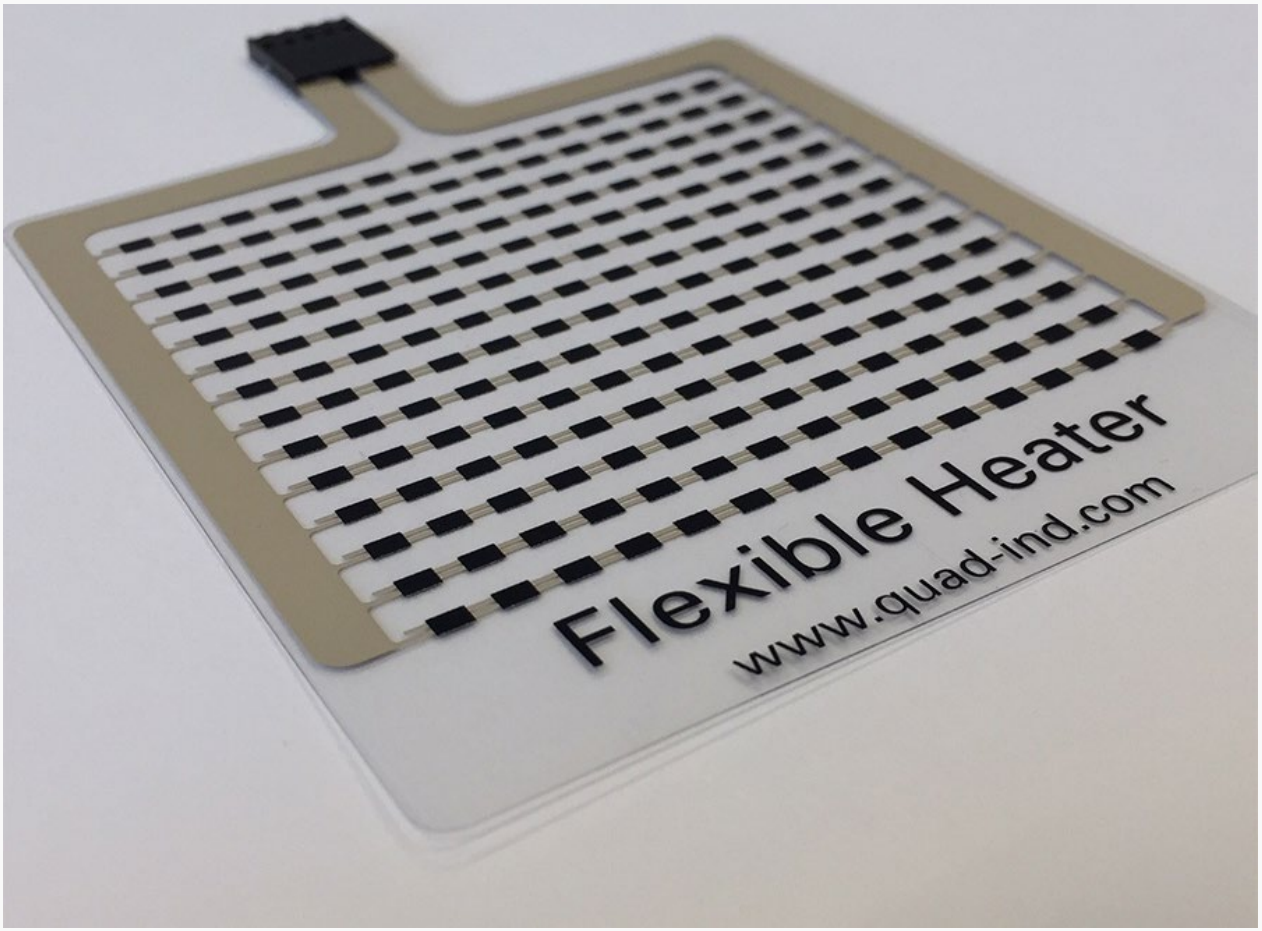
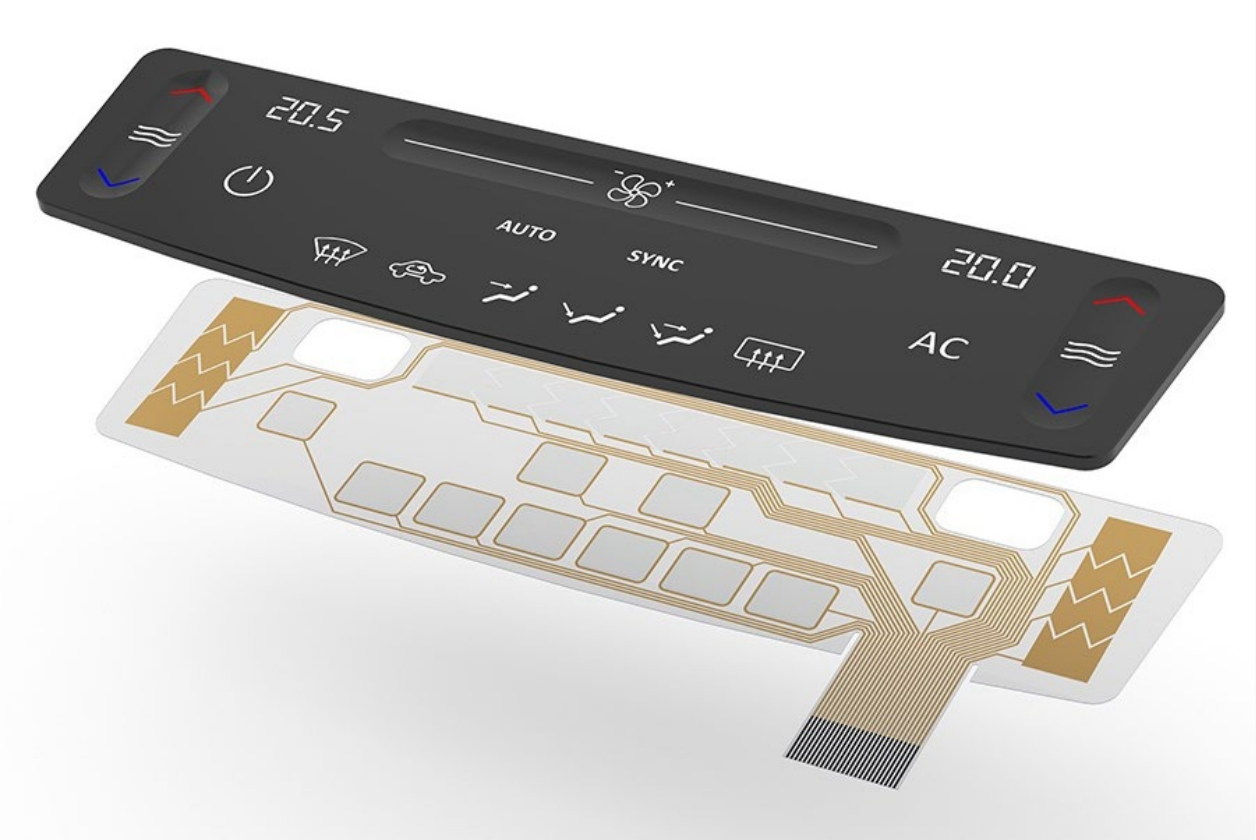


Flexible PTC Heaters

Flexible PTC heater technology is creating many new opportunities to integrate heating in a wide range of new applications, including mirrors and dashboards. Quad Industries has developed its own brand of flexible PTC heaters which provide a compact and cost-efficient alternative to wire-based solutions. The Positive Temperature Coefficient (PTC) functionality enables self-regulation to a specific temperature, offering uniform and flexible heating while increasing safety. Quad Industries helps you explore the different possibilities of new flexible heating technologies and guides you from the initial idea to the finished product.



Capacitive touch

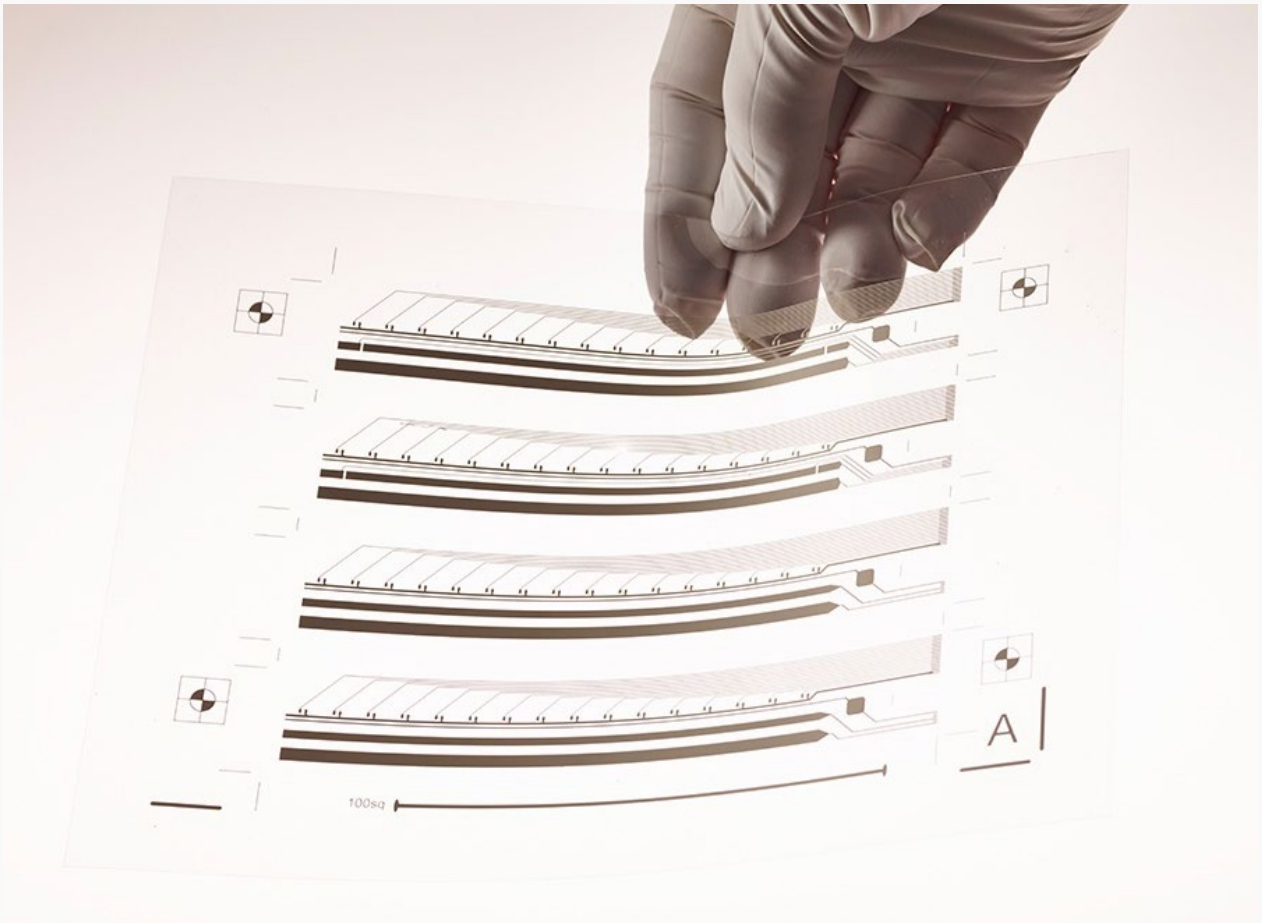
Capacitive sensor technology is based upon the constant monitoring of the electrical capacity of the touch area, which is changed by a human finger. As the human body is an electrical conductor, touching the surface of the screen results in a distortion of the screen's electrostatic field. Depending on the location of the touch and the movement that is detected by the capacitive touch sensor (swiping, tapping), a specific action will be triggered. Capacitive touch screens are used for a wide range of applications, from home appliances to industrial machines, and it's still on the rise. The reason for their popularity is obvious. Not only do they offer a very intuitive and pleasant user experience, they are also very familiar to users of mobile phones, tables, tv-sets and laptops. Black panel effects have made the user interfaces – often a thorn in the eye of designers – almost invisible when they are not being used.

Membrane switches

Membrane switches have always been the technology of choice for heavy-duty environments that require a high level of robustness. Membrane keypads can be made perfectly dust and watertight and resistant to chemicals and other forms of pollution, which make them ideally suited for outdoor and industrial environments. Membrane switch keypads are also easy to clean, enabling maximum hygiene for medical and pharmaceutical applications such as hospitals and cleanrooms. This does not mean, however, that membrane switches cannot look the part. The possibilities are endless! As a membrane switch manufacturer, Quad Industries offers a wide range of high-quality finishing options, including soft-touch keypads or a brushed steel look.

Smart skin patches and e-textiles

Quad Industries focuses on wearables, smart patches and smart textiles. Keeping in mind that all applications should be flexible and pleasant to use or wear, we produce flexible electronic circuits on thin flexible substrates and skin friendly adhesives. Skin patches and diagnostic electrodes are becoming increasingly popular in the medical world. Medical patches make it possible to monitor the health condition of a patient, for example for diabetes management, cardiovascular monitoring (ECG), or brain activity analysis (EEG). Seen as the next generation of body monitoring, the peel-and-stick smart patch has to be a non-invasive on-body multiparameter monitor. Through our extensive research in printed electronics we can integrate different types of sensors to measure for example temperature, respiration and perspiration. By using a most unique and highly innovative material combination we can ensure maximal ease of use and comfort for the user.



Printed sensors

Printed sensors are the primary building stones for the development of the Internet of Things and creating smart products and objects. They enable monitoring of anything from temperature and moisture to pressure and motion. The advent of the Internet of Things is driving the demand for smart and interconnected objects and products in every sector – from the worlds of sports and fashion to automotive and healthcare. The rapid development of flexible screen-printed electrodes enables to integrate sensors in a wide range of products where this was not technically feasible even a couple of years ago – think plastic packaging, clothing, sport shoes or even mattresses. Developing smart products is more than just adding printed sensors to your existing product. It requires making the right choices, both technical and functional. We use our expertise to guide you every step of the way, exploring possibilities and limitations while answering a number of crucial questions.