

# INJECTION MOULDED PARTS FOR SENSOR AND ELECTRO TECHNOLOGY

Sensor technology and electrical engineering require very filigree components that have to be manufactured from high-precision injection molds. High demands are placed on the shape accuracy of the individual parts. The connection dimensions for attachments and consequently the system capability must be guaranteed and minimum manufacturing tolerances must be adhered to.

Particularly in the case of molded parts for electrical systems, very narrow tolerances on dimensions and deviations in shape and position are the rule. In order to be able to guarantee the desired characteristics of dimensional accuracy, high surface quality and filigree contours, a filling and distortion simulation (Moldflow simulation) is often carried out in advance, from the results of which the correct production measures are derived.

When it comes to monitoring processes in extreme environmental conditions, material properties such as mechanical, chemical and thermal resistance are in particular demand. Therefore, in these applications, the critical components (sensors) are encapsulated with "filled" high-performance plastics. This guarantees a long shelf life and protection against corrosion and moisture.

Our molds are also used, for example, for the production of components for conductivity sensors, which are primarily used for process monitoring in the beverage and food industries. Here the hygiene and temperature requirements are guaranteed by the use of high-performance plastics (e.g. PEEK and PPS).

We use insert technology for demanding plastic parts with contact elements. The metal inserts are fed to the tool either manually or automatically. In order to ensure the correct positioning of the inserts in the series process, the coordination between tool and insert must be very precise. The insert is overmolded in the mold to achieve a firm bond between the insert and the molded part. For the production of injection molds for insert technology, we can offer and implement various processes.

Since the processing of high-performance plastics or metal inserts requires a special tool design, MÜHLBEYER GmbH is the right address for the successful implementation of your demanding projects.

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