

## STEGO Product History: The Concept Of Enclosure Thermostats

It is quite fascinating what we have learned in our talks with the company founders of STEGO. Moreover, we want to share this info with you. What did enclosure climatisation look like in the old times? More than 40 years ago, before the company STEGO came in existence, control cabinets were heated with a lit light bulb that was, so to speak, in continuous operation. Those were the times before enclosure heaters were available. When the industry finally started using special heaters for enclosures and cabinets, STEGO, too, took part in the business with their first enclosure heaters called „Heiz-Igel“ (meaning “heating hedgehog” from the look of the heater). These heaters were not regulated, thus ran in continuous operation, as there were no enclosure thermostats at that time either. This has proven to be a significant disadvantage, as there is no upper temperature limit in a cabinet if the heater runs non-stop: permanently high temperatures limit the service life of other devices installed in the cabinet.

Some enclosure manufacturers started using household or room thermostats at some point, due to the lack of adequate equipment. However, these were able to measure and control temperatures up to 25 °C only. This was the time when the idea of an enclosure thermostat by our Mr. Eisenhauer came into play. The first controller was a so-called “change-over” contact and located in a metal housing, see photo 1.



Photo 1: STEGO Temperature Regulator FZ 170 Series in an aluminium housing

Together with the manufacturer of the bimetal regulator, Hartmut Eisenhauer advanced a bimetal sensor used for temperatures above 120°C to the temperature range relevant for use in enclosures and cabinets. It was then possible to heat up a cabinet to a desired temperature, and when the desired temperature was reached, to stop the heater and to start a fan or filter fan ventilating or cooling the space.

However, Mr. Eisenhauer was not yet satisfied with this solution. He divided the “change-over” contact into two separate contacts – a “normally closed” contact and a “normally open” contact, and put them in two separate housings. Now it was possible to activate a heater for low temperatures, and to stop the heater when the desired temperature was reached. And then, only if necessary, to switch-on a fan or filter

Photo 2: STEGO  
Small Thermostats  
KTO 1140 (red)  
and KTS 1141 (blue)



fan using the “normally open” contact that was set to a maximum temperature. This was our first product launch of the mechanical small thermostats for enclosure climatisation on the market – back then they were called KTO 1140 and KTS 1140, see photo 2.

Does this mean that everyone else has just copied our small enclosure thermostats? Let's just leave this question at that ...

We are still selling re-designs of the original „change-over“ thermostat in large numbers, and have continuously improved our small thermostats with „normally closed“ and „normally open“ contacts, resulting in a major re-design, our new thermostats KTO 111 and KTS 111, see photo 3, with Push-in terminals for tool-free connection – the Re-



Photo 3: STEGO Small Thermostats KTO 111 (red) and KTS 111 (blue) w/ Push-In connection terminal

Design of our classics KTO/KTS 011. Additionally we complemented our product range with other types of regulators, such as hygrostats, hygrotherms (a combination of a hygrostat and a thermostat) and electronic regulators. Our experts here at STEGO are happy to help you to choose the right thermostat for your application. You can find our portfolio on our homepage by clicking the following link:

<https://www.stego-group.com/products/regulating/>

Marketing Department 01/2021

STEGO Elektrotechnik GmbH  
Kolpingstraße 21  
74523 Schwäbisch Hall  
marketing@stego.de