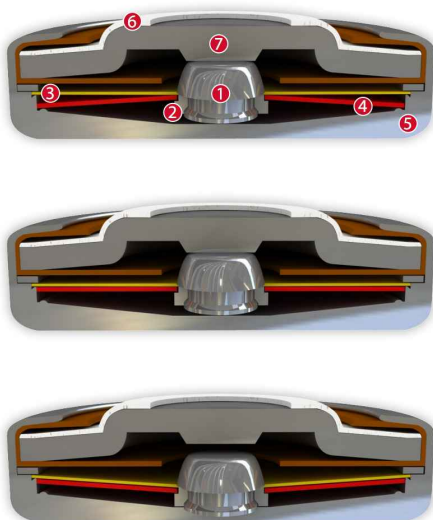


DATASHEET

Thermal Protector F05

Type series 05



Construction and function

Switchgear consisting of a movable silver contact (1), a contact bearer (2), a spring snap-in disc (3) and a bimetallic disc (4) which is riveted into one another, undetachable and fixed in a positive lock and self-aligning between a conductive, heat-transferring housing (5) and a contact cap made of steel (6) that is insulated from it, plus a stationary countercontact (7). At the same time, the switchgear is carried by the spring snap-in disc (3) acting as a transfer element for electric current which is held between a supporting collar and a circumferential ring. As such, the bimetallic disc (4) underlying it, that is also stuck out from the movable contact (1), can continuously work (exposed) by mechanical loads without the contact pressure defined by the spring snap-in disc (3) diminishing. As soon as the bimetallic disc (4) reaches its rated switching temperature, it effectively springs against the throw force of the spring snap-in disc (3) into its inverted position. The contact is abruptly opened. The temperature will now fall, the bimetallic disc (4) will only snap back upon reaching a defined reset temperature and the contact is closed again.

Features:

Small dimensions	suitable for mounting into and onto windings
Quick response sensitivity	featured by small protector mass and the metal housing
Excellent long term performance	due to instantaneous switching, fine-silver contacts, constant contact resistance and to electrically as well as mechanically unstressed bimetallic disc, reproducible switching temperature values
Very short bouncing times	< 1 ms
Instantaneous switching	with always constant contact pressure up to the nominal switching point, resulting in low contact stress
Temperature resistance	by use of high temperature resistant materials and components



