

INCOMING MATERIAL INSPECTION FOR REED SWITCH PRODUCTION

Coercivity deviations can impair reed switch performance. KOERZIMAT precisely verifies incoming material to ensure reliable switching behavior.



THE CHALLENGE

Reed switches rely on extremely soft magnetic contact pins to ensure fast and reliable switching under an external magnetic field. The coercive field strength of iron–nickel alloys directly influences switching dynamics. Deviations in H_{cJ} can significantly impair functionality, making precise incoming material inspection essential for stable production quality.

THE SOLUTION

Coercivity testing is performed using the KOERZIMAT 1.097 HCJ system in accordance with IEC 60404-7. Equipped with an internal probe, the device enables geometry-independent measurement of H_{cJ} on small reed pins with low stray flux. The system provides highly sensitive determination of coercive field strength up to 25 kA/m.

THE RESULT

The solution enables clear differentiation between compliant and non-compliant materials, for example ~ 50 A/m for acceptable pins versus ≥ 400 A/m for unsuitable material. Precise H_{cJ} measurement supports reliable incoming inspection and ensures fast switching performance and long-term functionality of reed switches in industrial applications.

THE PRODUCTS

KOERZIMAT 1.097 HCJ/J-H

System for measuring coercive field strength HCJ, J(H) hysteresis and relative permeability $\mu_r(H)$



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