

Title (en)

DEVICE AND METHOD FOR ACTUATING A CONTROL ELEMENT IN AN ENVIRONMENT AT RISK OF EXPLOSION OR FIRE, AND, BASED THEREON, CURRENT-TO-PRESSURE CONVERTERS, SOLENOID VALVES, POSITION CONTROLLERS, CONTROL VALVES AND SYSTEMS

Title (de)

VORRICHTUNG UND VERFAHREN ZUM BETÄTIGEN EINES STELLELEMENTS IN EINER EXPLOSIONS- ODER BRANDGEFÄHRDETEN UMGEBUNG UND DARAUF BASIERENDE IP-WANDLER, MAGNETVENTILE, STELLUNGSREGLER, STELLVENTILE UND ANLAGEN

Title (fr)

DISPOSITIF ET PROCÉDÉ DESTINÉ À ACTIONNER UN ÉLÉMENT DE RÉGLAGE DANS UN ENVIRONNEMENT À RISQUE D'EXPLOSION OU D'INCENDIE ET CONVERTISSEURS IP, ÉLECTROVANNES, POSITIONNEURS, VANNES DE RÉGULATION ET INSTALLATIONS À BASE DE CELA

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Application

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Abstract (en)

[origin: WO2022112317A2] The invention relates to devices (100) for actuating a control element (110), which devices can be safely and reliably operated in an environment at risk of explosion or fire. For this purpose, a device (100) is proposed in which the control element (110) is actuated by means of a magnetic field of an electromagnet (130), which is located in a flameproof housing (120). The magnetic field of the electromagnet (130) is conducted out of the housing (120) by means of a flux-conducting piece, which extends through the housing (120) in such a way that flameproofing is ensured. In this way, the magnetic force which the electromagnet (130) applies to the control element (110) of the device (100) can be transmitted to the control element (110) nearly without loss. The proposed device (100) is suitable for use in solenoid valves, current-to-pressure converters, position controllers or control valves in process systems or power plants.

IPC 8 full level

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