

Title (en)  
VALVE ARRANGEMENT AND CONTROL METHOD

Title (de)  
VENTILANORDNUNG UND STEUERUNGSVERFAHREN

Title (fr)  
SYSTÈME DE SOUPAPES ET PROCÉDÉ DE COMMANDE

Publication  
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Application  
**EP 18812035 A 20181003**

Priority  
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• DE 2018000282 W 20181003

Abstract (en)  
[origin: WO2019072328A1] The aim of the invention is to provide a valve arrangement for controlling pneumatic drives, with protection against sudden unprompted changes to the initial switching position without reception of an input signal there is a fault in a restoring element of a pilot stage, and subsequent effective fault detection by purely pneumatic means. According to the invention, the valve arrangement comprises a first and a second working connection (1; 2) that can be connected to a drive and a first and a second electropneumatically pilot-operated directional control valve, one or both directional control valves being mounted upstream of the working connections (1; 2) for action upon and ventilation of same. The pilot stages of both directional control valves are designed as self-restoring entities and the second direction control valve is designed to alternate between a rest position and a switching position. The pilot stage of the first directional control valve has an external control connection (8, 8') which can be acted upon by the second directional control valve to achieve its switching position and can be ventilated by the second directional control valve to achieve its rest position. The second directional control valve has an air spring (19) as a restoring element for the main stage (14) and said air spring can be acted upon and ventilated externally via the first directional control valve. A change of state between action upon or ventilation of the air spring (19) takes place once the first directional control valve is in a switching position and only when the first directional control valve changes switching state. A change of state between action upon or ventilation of a working connection (1; 2) takes place after an action upon or ventilation which is brought about when the second directional control valve is in the switching position and only when the second directional control valve is in the rest position.

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