A four-port two-position pneumatic control valve has body with channels for supply and discharge of compressed air. Recesses in the body are divided into cavities with partitions with axial openings; some of those formed with bottoms of recesses are connected to using equipment. Distributors as rod with double-seat valve and piston are placed in recesses of the body in such way that the rods go through axial openings in the partitions. Double-seat valves are in cavities of consumers and can be in contact with seats of openings in partitions and in bottoms of the recesses. The pistons form with partition cavities connected each with one of those channels and separate those from control cavities. To simplify design, one recess with opening in bottom is connected to inlet channel, and with cavity formed with piston and partition – to discharge channel, the other recess with opening in the bottom is connected to discharge channel, and by cavity formed by piston and partition – to inlet channel.