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(71) Applicant *(for all designated States except US)*: **HALLIBURTON ENERGY SERVICES, INC.** [US/US]; 2601 Beltline Road, Carrollton, TX 75006 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **FRIPP, Michael, Linley** [US/US]; 3826 Cemetery Hill Road, Carrollton, TX 75007 (US). **DYKSTRA, Jason, D.** [US/US]; 3405 Hillpark Lane, Carrollton, TX 75007 (US). **GANO, John, Charles** [US/US]; 2015 White Ash Road, Carrollton, TX 75007 (US). **HOLDERMAN, Luke, William** [US/US]; 3709 Campstone, Plano, TX 75023 (US).

(74) Agent: **YOUST, Lawrence, R.**; Lawrence Youst PLLC, One Waterway Court, Suite 3b, The Woodlands, TX 77380 (US).

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(54) **Title**: DOWNHOLE FLUID FLOW CONTROL SYSTEM HAVING A FLUIDIC MODULE WITH A BRIDGE NETWORK AND METHOD FOR USE OF SAME

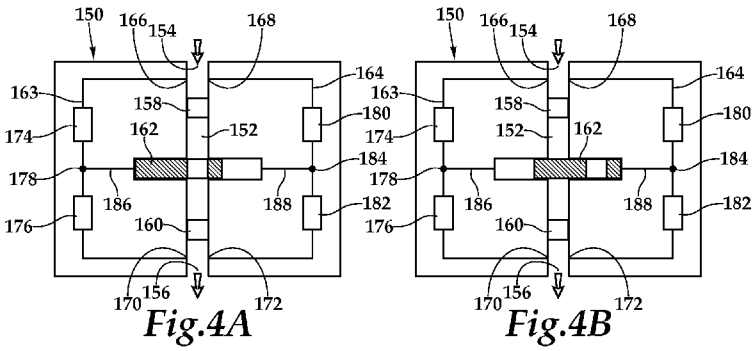

Fig.4A *Fig.4B*

(57) **Abstract**: A downhole fluid flow control system includes a fluidic module (150) having a main fluid pathway (152), a valve (162) and a bridge network. The valve (162) has a first position wherein fluid flow through the main fluid pathway (152) is allowed and a second position wherein fluid flow through the main fluid pathway (152) is restricted. The bridge network has first and second branch fluid pathways (163, 164) each having a common fluid inlet (166, 168) and a common fluid outlet (170, 172) with the main fluid pathway (152) and each including two fluid flow resistors (174, 176, 180, 182) with a pressure output terminal (178, 184) positioned therebetween. In operation, the pressure difference between the pressure output terminals (178, 184) of the first and second branch fluid pathways (163, 164) shifts the valve (162) between the first and second positions.

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