

Title (en)
FLUID DELIVERY SYSTEMS, PRESSURE ISOLATION MECHANISMS, INJECTOR CONTROL MECHANISMS, AND METHODS OF USE THEREOF

Title (de)
FLUIDZUFUHRSYSTEME, DRUCKISOLIERMECHANISMEN, EINSPRITZSTEUERMECHANISMEN UND VERWENDUNGSVERFAHREN DAFÜR

Title (fr)
SYSTEMES DE DISTRIBUTION DE FLUIDES, MECANISMES D'ISOLATION DE PRESSION, MECANISMES DE CONTROLE D'INJECTEUR ET PROCEDES D'UTILISATION ASSOCIES

Publication
EP 1753481 A2 20070221 (EN)

Application
EP 04821981 A 20040412

Priority
US 2004011190 W 20040412

Abstract (en)
[origin: WO2005110007A2] An injector system includes a source of injection fluid, a pump device, a fluid path set disposed between the source of injection fluid and the pump device, and a fluid control device operatively associated with the fluid path set. The fluid control device is adapted to permit purging of air from the fluid path set and to stop flow of the injection fluid to a patient at substantially any pressure or flow rate generated by the pump device for delivering a sharp bolus of the injection fluid to the patient. The fluid control device is preferably part of the fluid path set between the source of injection fluid and the pump device. In another aspect, an injector system includes a powered injector, a pressurizing chamber in operative connection with the powered injector, a fluid path in fluid connection with the pressurizing chamber, and a manual control in fluid connection with the fluid path. The manual control includes at least one actuator for controlling the injector through application of force by an operator. The actuator provides tactile feedback of pressure in the fluid path to the operator via a fluid connection with the fluid path. A pressure isolation mechanism for use in a medical procedure includes a lumen, an isolation port in fluid connection with the lumen, and a valve having a first state and a second state. The first state occurs when the lumen and the isolation port are connected. The second state occurs when the lumen and the isolation port are disconnected. The lumen remains open for flow of fluid therethrough in the first state and in the second state. The valve is normally in the first state and is switchable to the second state when fluid pressure in the lumen reaches a predetermined pressure level. A pressure transducer can be in fluid connection with the isolation port of the pressure isolation mechanism. A fluid delivery system includes a manually operated syringe and a pressure isolation mechanism as described above.

IPC 8 full level
A61M 1/00 (2006.01); **A61M 5/00** (2006.01); **A61M 5/145** (2006.01); **A61M 5/168** (2006.01); **A61M 5/36** (2006.01); **A61M 37/00** (2006.01); **A61M 39/22** (2006.01); **G05D 16/06** (2006.01); **A61M 5/14** (2006.01); **A61M 39/24** (2006.01)

CPC (source: EP)
A61M 5/007 (2013.01); **A61M 5/14546** (2013.01); **A61M 5/16881** (2013.01); **A61M 5/36** (2013.01); **A61M 39/22** (2013.01); **A61M 5/16827** (2013.01); **A61M 39/223** (2013.01); **A61M 39/24** (2013.01); **A61M 2005/1403** (2013.01); **A61M 2205/3331** (2013.01); **A61M 2205/582** (2013.01)

Designated contracting state (EPC)
DE FR IT NL

Designated extension state (EPC)
AL HR LT LV MK

DOCDB simple family (publication)
WO 2005110007 A2 20051124; **WO 2005110007 A3 20061207**; EP 1753481 A2 20070221; EP 1753481 A4 20090603; JP 2007532234 A 20071115

DOCDB simple family (application)
US 2004011190 W 20040412; EP 04821981 A 20040412; JP 2007508308 A 20040412