

Title (en)
EXPANSION VALVE

Title (de)
EXPANSIONSVENTIL

Title (fr)
SOUPAPE DE DÉTENTE

Publication
EP 3940279 A4 20221207 (EN)

Application
EP 20773642 A 20200210

Priority
• JP 2019048420 A 20190315
• JP 2020005113 W 20200210

Abstract (en)
[origin: EP3940279A1] An improved expansion valve is provided, which has a simple configuration and with which noise can be reduced. An expansion valve (10) includes a valve main body (2) having a valve chamber (VS) and a valve seat (20), a valve body (3) configured to prevent passage of a fluid by being seated on the valve seat and allow passage of the fluid by separating from the valve seat, a coil spring (41) configured to urge the valve body toward the valve seat, and an actuation rod (5) configured to press the valve body toward a direction separating from the valve seat against an urging force applied from the coil spring, wherein the valve chamber (VS) includes a cylindrical inner wall (24) being connected to the valve seat, the valve body (3) includes a contact portion (31) configured to be seated on the valve seat and a body portion (32) having a tubular shape facing the inner wall, and the body portion includes connecting surfaces (32b) that are slidably in contact with the inner wall 24 and plane surfaces (32a) that have a gap provided between the inner wall 24.

IPC 8 full level
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F25B 41/31 (2021.01 - EP US); **F25B 41/335** (2021.01 - EP); **F25B 2341/06** (2013.01 - EP); **F25B 2341/0683** (2013.01 - EP); **F25B 2500/03** (2013.01 - EP); **F25B 2500/06** (2013.01 - EP); **F25B 2500/12** (2013.01 - EP US)

Citation (search report)
• [XY] JP 2012052693 A 20120315 - FUJI KOKI KK
• [Y] JP 2000055512 A 20000225 - TGK CO LTD
• [Y] JP 2013145041 A 20130725 - TGK CO LTD
• [A] JP 2012255471 A 20121227 - FUJI KOKI KK
• See also references of WO 2020189092A1

Designated contracting state (EPC)
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