

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 August 2003 (07.08.2003)

PCT

(10) International Publication Number
WO 03/065141 A1

(51) International Patent Classification⁷: **G05D 7/01**,
F16K 1/52, 15/18

(21) International Application Number: PCT/SE03/00005

(22) International Filing Date: 7 January 2003 (07.01.2003)

(25) Filing Language: Swedish

(26) Publication Language: English

(30) Priority Data:
0200239-2 28 January 2002 (28.01.2002) SE

(71) Applicant (for all designated States except US): **TOUR & ANDERSSON AB** [SE/SE]; S-524 80 Ljung (SE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **ENGELBREK-TSSON, Anders** [SE/SE]; Vinkelgatan 10, S-524 32 Herrljunga (SE).

(74) Agent: **SIEBMANN S, H.**; Gotapatent AB, Box 154, S-561 22 Huskvarna (SE).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

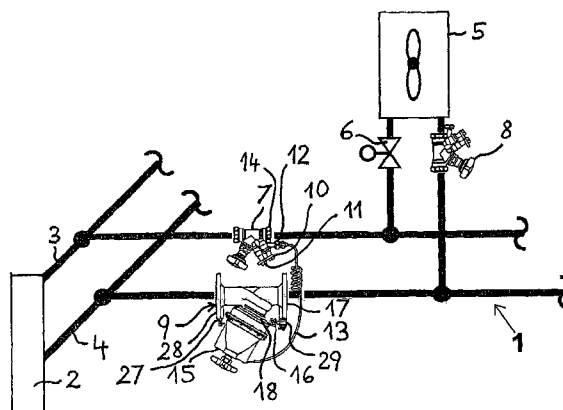
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: APPARATUS FOR CONTROL OF DIFFERENTIAL PRESSURE IN A HEATING AND COOLING SYSTEM



(57) Abstract: The invention relates to an apparatus (1) for controlling the pressure difference in a heating or cooling system, which comprises a heating or a cooling source (2) and a feed duct (3) as well as a return duct (4), connected to the source, and consumption devices (5) disposed between said ducts, which emit or receives heat, at least one valve or the like (6 and 7 and 8, respectively) being used to control the flow through such a loop, a pressure difference regulator (9) being used to keep the pressure difference between the feed duct and the return duct constant. According to the invention, the pressure difference regulator (9) is optionally mounted in one of said ducts (3 or 4) and is provided with signaling terminals (29 and 27 and 32 and 30, 31, respectively) connected to the inlet (17) and the outlet (28), respectively, as well as to the low pressure regulating side (18) and the high pressure regulating side (15), respectively. At least one valve or the like (6 and 7, respectively), mounted in the other duct (4 and 3, respectively) in relation to the duct (3 and 4, respectively) of the pressure difference regulator, is provided with signaling terminals (23; 34 and 12; 33, respectively), connected to its inlet (21 and 24, respectively) and outlet (14 and 22, respectively). The pressure difference regulator is controlled via optional signaling ducts (13 and 16 and 19 and 20 and 25 and 26, respectively) between said terminals.



WO 03/065141 A1