

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
22 December 2022 (22.12.2022)



(10) International Publication Number
WO 2022/265920 A1

(51) International Patent Classification:
G01F 1/28 (2006.01) *G01F 1/80* (2006.01)

(21) International Application Number:
PCT/US2022/032929

(22) International Filing Date:
10 June 2022 (10.06.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/212,209 18 June 2021 (18.06.2021) US

(71) Applicant: **VICTAULIC COMPANY** [US/US]; 4901
Kesslersville Road, Easton, PA 18040 (US).

(72) Inventors: **CIASULLI, Andrew, Michael**; 866 Gove
Road, Nazareth, PA 18064 (US). **MEYER, Stephen,
Joseph**; 1135 Braefield Road, Chester Springs, PA 19425
(US). **DESROCHERS, Kristopher, Lawrence**; 532 Sugar
Maple Court, Cincinnati, OH 45255 (US). **CLEVENGER,**

Neal, A.; 483 Arthurs Court, Nazareth, PA 18064 (US).
CARMEN, Larry; 502 Bauer Road, Bath, PA 18014 (US).

(74) Agent: **CHIONCHIO, John, A.** et al.; Ballard Spahr LLP,
1735 Market Street, 51st Floor, Philadelphia, PA 19103
(US).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH,
KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA,
MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU,
RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM,
ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ,

(54) Title: CALIBRATED FLOW RATE SENSING AND FLOW CONTROL DEVICE

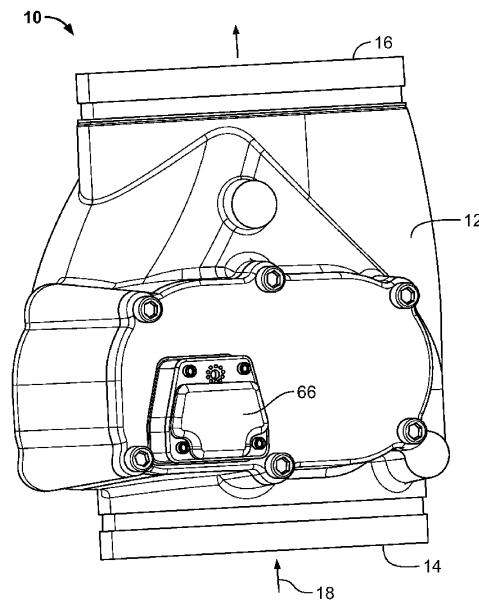


FIG. 1

(57) Abstract: A fluid flow rate sensor, which may also be the basis of a valve for a fire suppression system, uses a sensing arm to convey motion of an obturation body or a valve closing member to a sensor system which evaluates the motion and generates a calibrated measure of the flow rate and/or an alarm signal in response if warranted. The obturation body and the valve closing member are capable of both rotation and translational motion, both of which are sensed using the sensing arm. The sensor system is isolated from the fluid within the valve.

[Continued on next page]



WO 2022/265920 A1

UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*