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(72) Inventors; and

(71) Applicants : POOLE, Joseph, George [GB/GB]; 5 Kent Close, Rochester, Kent ME1 2UP (GB). TEMPLEMAN, John, Barry [GB/GB]; 34 Wyndham Road, Chatham, Kent ME4 6QS (GB).

(74) Agent: HOCKING, Adrian, Niall; Albright Patents, Eagle Tower, Montpellier Drive, Cheltenham, Gloucestershire GL50 1TA (GB).

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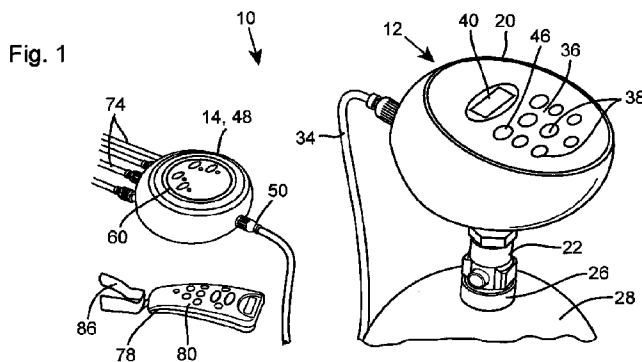
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Published:

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23 December 2010

(54) Title: COMPRESSED-GAS REGULATOR APPARATUS



(57) Abstract: Compressed-gas regulator apparatus (10) for controlling a pressurised OFN supply, comprises a regulator housing (20) having a regulator gas inlet (24), a regulator gas outlet (16) and a flow path therebetween, the gas inlet (24) being releasably connectable to an outlet (26) of the OFN supply (28), an electrically-operable regulator valve (30) for controlling a flow of gas along the flow path, a pressure sensing device in the housing for sensing a backpressure at or from the gas outlet (16), a regulator user-interface (36) for inputting a backpressure value, a local regulator controller for automatically closing the valve when the user-selected backpressure is reached, a wireless regulator receiver for remotely controlling the local regulator controller, and a discrete remote controller (18) having a remote user-interface (80) and a wireless transmitter for wirelessly transmitting a control signal to the wireless regulator receiver.



INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2010/050477

A. CLASSIFICATION OF SUBJECT MATTER
 INV. G05D16/20 F25B45/00 G01M3/22 F16K11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 G05D F25B G01M F16K F24F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2008/018373 A1 (DAIKIN IND LTD [JP]; KURIHARA TOSHIYUKI [JP]; MATSUOKA HIROMUNE [JP]) 14 February 2008 (2008-02-14)	1-11
A	the whole document & US 2009/320502 A1 (KURIHARA TOSHIYUKI [JP] ET AL) 31 December 2009 (2009-12-31) paragraphs [0010], [0101] - [0104], [0110] - [0112], [0143]; figures 1,2	12-16
Y	US 6 035 878 A (ADAMS PAUL R [US] ET AL) 14 March 2000 (2000-03-14)	1-11
A	column 3, lines 19-31 column 4, lines 16-32 column 9, lines 9-16 column 13, lines 16-24; figures 7,15	12-16
A	EP 1 300 666 A2 (DENBY CARL [GB]) 9 April 2003 (2003-04-09) paragraphs [0034] - [0038]; figure 3	1-16

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

25 August 2010

Date of mailing of the international search report

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Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040,
 Fax: (+31-70) 340-3016

Authorized officer

Vañó Gea, Joaquín

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2010/050477

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

See annex

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-16

A compressed-gas regulator for controlling a pressurized OFN supply, comprising an electrically-operable valve, a user-interface, a local controller and a remote controller.

2. claims: 17-22

A splitter device for directing a gas input to any one of a plurality of gas outputs, comprising an electrically-operable valve, a user-interface and an on-board controller.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2010/050477

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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