

PCT REQUESTOriginal (for **SUBMISSION**)

0	For receiving Office use only	
0-1	International Application No.	PCT/US19/64278
0-2	International Filing Date	03 December 2019 (03.12.2019)
0-3	Name of receiving Office and "PCT International Application"	PCT INTERNATIONAL APPLICATION RO/US
0-4	Form PCT/RO/101 PCT Request	
0-4-1	Prepared Using	PCT-SAFE [EFS-Web mode] Version 3.51.086.262 MT/FOP 20190101/0.20.5.24
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	United States Patent and Trademark Office (USPTO) (RO/US)
0-7	Applicant's or agent's file reference	H-IK-00015-WO
I	Title of Invention	GAS SENSOR MODULE
II	Applicant	
II-1	This person is	Applicant only
II-2	Applicant for	All designated States
II-4	Name	MALLINCKRODT HOSPITAL PRODUCTS IP LIMITED
II-5	Address	College Business & Technology Park Cruiserath Road, Blanchardstown D15 TX2V Dublin Ireland
II-6	State of nationality	IE
II-7	State of residence	IE
III-1	Applicant and/or inventor	
III-1-1	This person is	Applicant and inventor
III-1-2	Applicant for	All designated States
III-1-4	Name (LAST, First)	ACKER, Jaron
III-1-5	Address	c/o MALLINCKRODT HOSPITAL PRODUCTS IP LIMITED 675 McDonnell Blvd. Hazelwood, Missouri 63042 United States of America
III-1-6	State of nationality	US
III-1-7	State of residence	US

PCT REQUESTOriginal (for **SUBMISSION**)

III-2	Applicant and/or inventor	
III-2-1	This person is	Inventor only
III-2-3	Inventor for	All designated States
III-2-4	Name (LAST, First)	CLARK, Peter James
III-2-5	Address	c/o MALLINCKRODT HOSPITAL PRODUCTS IP LIMITED College Business & Technology Park Cruiserath Road, Blanchardstown D15 TX2V Dublin Ireland
III-3	Applicant and/or inventor	
III-3-1	This person is	Inventor only
III-3-3	Inventor for	All designated States
III-3-4	Name (LAST, First)	ASSAMBO, Cedric
III-3-5	Address	c/o MALLINCKRODT HOSPITAL PRODUCTS IP LIMITED College Business & Technology Park Cruiserath Road, Blanchardstown D15 TX2V Dublin Ireland
III-4	Applicant and/or inventor	
III-4-1	This person is	Inventor only
III-4-3	Inventor for	All designated States
III-4-4	Name (LAST, First)	MCATAMNEY, Michael
III-4-5	Address	c/o MALLINCKRODT HOSPITAL PRODUCTS IP LIMITED College Business & Technology Park Cruiserath Road, Blanchardstown D15 TX2V Dublin Ireland
III-5	Applicant and/or inventor	
III-5-1	This person is	Inventor only
III-5-3	Inventor for	All designated States
III-5-4	Name (LAST, First)	KLAUS, John
III-5-5	Address	c/o MALLINCKRODT HOSPITAL PRODUCTS IP LIMITED College Business & Technology Park Cruiserath Road, Blanchardstown D15 TX2V Dublin Ireland

PCT REQUESTOriginal (for **SUBMISSION**)

III-6	Applicant and/or inventor	
III-6-1	This person is	Inventor only
III-6-3	Inventor for	All designated States
III-6-4	Name (LAST, First)	ROEHL, Robin
III-6-5	Address	c/o MALLINCKRODT HOSPITAL PRODUCTS IP LIMITED College Business & Technology Park Cruiserath Road, Blanchardstown D15 TX2V Dublin Ireland
IV-1	Agent or common representative; or address for correspondence	
	The person identified below is hereby/ has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	Agent
IV-1-1	Name (LAST, First)	KIRLEY, Morgan J.
IV-1-2	Address	POLSINELLI PC 105 West Vandalia Street Suite 400 Edwardsville, Illinois 62025 United States of America
IV-1-3	Telephone No.	314-889-8000
IV-1-4	Facsimile No.	618-655-9640
IV-1-5	e-mail	patents@mnk.com
IV-1-5(a)	E-mail authorization) The receiving Office, the International Searching Authority, the International Bureau and the International Preliminary Examining Authority are authorized to use this e-mail address, if the Office or Authority so wishes, to send notifications issued in respect of this international application:	exclusively in electronic form (no paper notifications will be sent)
IV-1-6	Agent's registration No.	59089

PCT REQUESTOriginal (for **SUBMISSION**)

IV-2	Additional agent(s)	Agent
IV-2-1	Name (LAST, First)	SIMAN, Craig D.
IV-2-2	Address	Mallinckrodt LLC 675 McDonnell Blvd. Hazelwood, Missouri 63042 United States of America
IV-2-3	Telephone No.	
IV-2-4	Facsimile No.	
IV-2-5	e-mail	patents@mnk.com
IV-2-5(a))	E-mail authorization The receiving Office, the International Searching Authority, the International Bureau and the International Preliminary Examining Authority are authorized to use this e-mail address, if the Office or Authority so wishes, to send notifications issued in respect of this international application:	exclusively in electronic form (no paper notifications will be sent)
IV-2-6	Agent's registration No.	60137
IV-3	Additional agent(s)	Agent
IV-3-1	Name (LAST, First)	KREPEL, Allison
IV-3-2	Address	POLSINELLI PC 105 West Vandalia Street Suite 400 Edwardsville, Illinois 62025 United States of America
IV-3-3	Telephone No.	314-889-8000
IV-3-4	Facsimile No.	618-655-9640
IV-3-5	e-mail	patents@mallinckrodt.com
IV-3-5(a))	E-mail authorization The receiving Office, the International Searching Authority, the International Bureau and the International Preliminary Examining Authority are authorized to use this e-mail address, if the Office or Authority so wishes, to send notifications issued in respect of this international application:	exclusively in electronic form (no paper notifications will be sent)
IV-3-6	Agent's registration No.	73649

PCT REQUESTOriginal (for **SUBMISSION**)

IV-4	Additional agent(s)	Agent
IV-4-1	Name (LAST, First)	BISSEN, Shirley T.
IV-4-2	Address	POLSINELLI PC 105 West Vandalia Street Suite 400 Edwardsville, Illinois 62025 United States of America
IV-4-3	Telephone No.	314-889-8000
IV-4-4	Facsimile No.	618-655-9640
IV-4-5	e-mail	patents@mallinckrodt.com
IV-4-5(a))	E-mail authorization The receiving Office, the International Searching Authority, the International Bureau and the International Preliminary Examining Authority are authorized to use this e-mail address, if the Office or Authority so wishes, to send notifications issued in respect of this international application:	exclusively in electronic form (no paper notifications will be sent)
IV-4-6	Agent's registration No.	57769
IV-5	Additional agent(s)	Agent
IV-5-1	Name (LAST, First)	DOTY, Kathryn
IV-5-2	Address	POLSINELLI PC 105 West Vandalia Street Suite 400 Edwardsville, Illinois 62025 United States of America
IV-5-3	Telephone No.	314-889-8000
IV-5-4	Facsimile No.	618-655-9640
IV-5-5	e-mail	patents@mallinckrodt.com
IV-5-5(a))	E-mail authorization The receiving Office, the International Searching Authority, the International Bureau and the International Preliminary Examining Authority are authorized to use this e-mail address, if the Office or Authority so wishes, to send notifications issued in respect of this international application:	exclusively in electronic form (no paper notifications will be sent)
IV-5-6	Agent's registration No.	40593
V	DESIGNATIONS	
V-1	The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.	

PCT REQUESTOriginal (for **SUBMISSION**)

VI-1	Priority claim of earlier national application		
VI-1-1	Filing date	03 December 2018 (03.12.2018)	
VI-1-2	Number	62/774, 687	
VI-1-3	Country or Member of WTO	US	
VI-2	Priority document request		
	The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	VI-1	
VI-3	Incorporation by reference :		
	where an element of the international application referred to in Article 11(1)(iii)(d) or (e) or a part of the description, claims or drawings referred to in Rule 20.5(a) is not otherwise contained in this international application but is completely contained in an earlier application whose priority is claimed on the date on which one or more elements referred to in Article 11(1)(iii) were first received by the receiving Office, that element or part is, subject to confirmation under Rule 20.6, incorporated by reference in this international application for the purposes of Rule 20.6.		
VII-1	International Searching Authority Chosen	United States Patent and Trademark Office (USPTO) (ISA/US)	
VIII	Declarations	Number of declarations	
VIII-1	Declaration as to the identity of the inventor	—	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	—	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	—	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	—	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	—	
IX	Check list	Number of sheets	Electronic file(s) attached
IX-1	Request (including declaration sheets)	7	✓
IX-2	Description	16	—
IX-3	Claims	4	—
IX-4	Abstract	1	✓
IX-5	Drawings	7	—
IX-7	TOTAL	35	

PCT REQUESTOriginal (for **SUBMISSION**)

	Accompanying Items	Paper document(s) attached	Electronic file(s) attached
IX-8	Fee calculation sheet	✓	-
IX-20	Figure of the drawings which should accompany the abstract		
IX-21	Language of filing of the international application	English	
X-1	Signature of applicant, agent or common representative	/J. Morgan Kirley, Reg. No. 59089, Agent/	
X-1-1	Name (LAST, First)	KIRLEY, Morgan J.	
X-1-3	Capacity (if such capacity is not obvious from reading the request)		

FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	03 December 2019 (03.12.2019)
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/US
10-6	Transmittal of search copy delayed until search fee is paid	

FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
------	---	--