

1. Interpretation

For the purposes of these Terms and Conditions of Sale and Supply ("Conditions"):

- "Buyer" means the person, firm or company which places an order for purchase of Products and/or Services as identified in any such order or Proposal as the case may be.
- "Conditions" means these terms and conditions of sale and supply as from time to time varied by the Supplier.
- "Contract" means the agreement between Supplier and Buyer arising as a result of Supplier's Quotation provided to Buyer, Buyer's submission of an order for Supplier's Products and Supplier's written acceptance and/or, in the case of Services, an agreement between such parties for the provision of Services by Supplier. Such Contract shall be deemed to incorporate and be governed by these Conditions.
- "Products" means goods supplied as agreed to be supplied by the Supplier to the Buyer under any Contract including, where applicable, any Software.
- "Quotation" means a document provided by Supplier describing Products and/or Services offered to Buyer, subject to these Conditions.
- "Services" means any services which the Supplier has agreed to provide using reasonable care and skill under any Quotation or Contract, as applicable.
- "Supplier" means Particle Measuring Systems S.r.l. and/or any other related entity specifically named in the Quotation

2. Basis of Sale

THESE CONDITIONS SHALL TAKE PRECEDENCE OVER ANY TERMS AND CONDITIONS WHICH APPEAR IN THE BUYER'S ORDER OR IN ANY DOCUMENTS INCORPORATED BY REFERENCE IN THE BUYER'S ORDER. No term or condition of the Buyer's order additional to or different from these Conditions shall become part of any Contract unless explicitly agreed to in writing by the Supplier. Retention by the Buyer of any Products delivered by the Supplier, receipt by the Buyer of any Services performed by the Supplier or payment by the Buyer of any invoice rendered hereunder, shall be conclusively deemed acceptance of these Conditions. Supplier's failure to object to any provision contained in any communication from the Buyer shall not be construed as a waiver of these Conditions nor as an acceptance of any such provision.

3. Quotations

Prices, specifications and delivery date referenced in Supplier's quotations are for information only and shall not be binding on Supplier until all technical requirements have been agreed and the Supplier has accepted Buyer's order. Quotations terminate if Buyer does not place an order with Supplier within any express period indicated by Supplier on the quotation or after 60 days, whichever comes first.

4. Orders

By submitting an order to the Supplier, the Buyer agrees to be subject to these Conditions in their entirety. No order, whether or not submitted in response to a quotation by Supplier, shall be binding upon Supplier until accepted in writing by Supplier.

5. Prices and Taxes

- 5.1 The prices for Products and Services will be as set out in the Quotation or as otherwise agreed between the parties in writing. As and when applicable to the Products sold and/or Services supplied under any Contract, prices do not include taxes, transport charges, insurance and export and/or import charges or duties, including without limitation sales, value added tax, use or excise taxes, which taxes and other charges may, in Supplier's discretion, be added by Supplier to the price or billed separately and which taxes and other charges shall be paid by Buyer unless Buyer provides Supplier with any necessary tax exemption certificate. Buyer shall pay for taxes, transport charges, insurance, export/import charges and duties unless agreed otherwise in writing.
- 5.2 If, after the conclusion of a Contract, the Supplier provides services at the request of the Buyer, which are not covered by the Contract (for example, without limitation, to forward additional documents or certificates, to defer a shipment, to suspend Services etc.), the Supplier may charge the Buyer for all external costs and internal expenses arising therefrom.

- 5.3 Payment shall be effected by bank transfer except as provided differently in the Quotation, whereby cash payments cannot be agreed or accepted under any circumstances.
- 5.4 Supplier reserves the right to reasonably increase its prices to the extent necessary to cover costs that arose after conclusion of the contract as a result of increases in the salaries/ wages of its employees (e.g. on account of collective bargaining contracts) or increases in the cost of materials or custom duties and others.

6. Shipment and Delivery

- 6.1 Unless otherwise agreed by both parties in writing, Supplier shall arrange for delivery of Products Free Carrier (FCA Incoterms® 2020) Supplier's facility. Any dates quoted or agreed by the Supplier for delivery of Products or provision of Services are approximate only and the Supplier shall not be liable for any delay in delivery of Products howsoever caused and time is not of the essence.
- 6.2 The Supplier reserves the right to make delivery of Products and provision of Services by instalments and to issue a separate invoice in respect of each instalment. When delivery is to be by instalments or the Supplier exercises its right to deliver by instalments or if there is delay in the delivery of any one or more instalments for whatever reason the Buyer shall not be entitled to treat the Contract as a whole as repudiated.
- 6.3 Supplier shall not be responsible for delays caused by reasons not attributable to the Supplier, including without limitation: (a) force majeure events according to Section 17; (b) delayed or denied export licenses as described in Section 21, provided Supplier took commercially reasonable efforts to obtain such licenses; (c) conflicting sanctions or embargos; (d) delayed customs clearance; (e) lack of delivery by Supplier's upstream suppliers or vendors, provided Supplier took commercially reasonable efforts to ensure being supplied; (f) failed delivery as described in Section 6.2; or (g) any deficiencies in the provision of agreed or necessary access, support or other contributions on part of the Buyer. Supplier shall inform Buyer of such delays. If such delays last longer than ninety (90) days, the affected part of a Contract may be terminated by either party without additional cost, or without liability to the other party.
- 6.4 Supplier further reserves the right to make delivery of Products in advance of any quoted or agreed delivery date subject to giving reasonable advance notice to Buyer.

7. Risk and Passing of Title

Title and risk of loss or damage to all products sold hereunder shall pass from Supplier to Buyer on delivery in accordance with Section 6 unless agreed otherwise by the parties in writing. If the price of Products has not been paid in full when the Products are delivered, Supplier shall retain the ownership of the Products until Supplier receives the price in full. Any claims for loss, damage or misdelivery thereafter shall be filed with the carrier and notified to Supplier within five (5) days of the date of delivery. If installation is a requirement of the Contract and such installation is delayed by more than twenty-eight (28) days from the agreed delivery date for reasons not attributable to Supplier, then, to the extent allowed by applicable law, the Products shall be deemed accepted and Supplier shall be entitled to invoice the remaining balance of the Contract in full. Invoicing the remaining balance does not relieve Supplier from its installation obligations in accordance with the applicable term in the Contract.

8. Services

- 8.1 The Supplier shall provide Services in accordance with these Conditions and the terms of the relevant Proposal or Contract.
- 8.2 The Buyer shall, upon the Supplier's reasonable request and otherwise as required, provide the Supplier with all necessary information and materials to enable the Supplier to provide Services in accordance with the terms of any relevant Contract. The Buyer will be responsible for the completeness and accuracy of all such information and materials provided.

9. Terms of Payment

- 9.1 Unless otherwise agreed in writing, each shipment of Products may, in Supplier's reasonable discretion, be treated as a separate transaction and the Buyer will be invoiced on shipment. Notwithstanding the foregoing, if the Products are to be installed by Supplier or a third party acting on its behalf, Buyer may (at Supplier's discretion) be invoiced in accordance with the payment schedule set out in the Quotation. Unless otherwise agreed in writing, the Supplier shall be entitled to invoice the Buyer, in respect of Services, yearly or monthly in advance, on the effective date of

the respective Contract, unless stated differently in the Quotation.

- 9.2 In the event of a delay in the delivery or acceptance that is not attributable to Supplier, payment shall not be affected and Buyer shall pay the full amount or the installments, if any, based upon the initially agreed upon delivery or acceptance date.
- 9.3 Terms of payment shall be net thirty (30) days from date of invoice for Products and Services, unless agreed otherwise.
- 9.4 All amounts due under a Contract shall be paid in full by the Buyer without deduction, withholding, set-off or counterclaim for any reason whatsoever, whether arising in contract, tort (including negligence), breach of statutory duty or otherwise, save as may be required by law. Payments shall be directly from Buyer, and not from any third parties, without the express written consent of the Supplier.
- 9.5 The Supplier may, in its sole discretion, determine at any time that the Buyer's financial condition requires full or partial payment in advance or the provision of security for payment by the Buyer in a form satisfactory to the Supplier.
- 9.6 If the Buyer fails to make any payment when due then, without prejudice to any other rights and remedies available to the Supplier, Supplier shall (at its option) be entitled: (i) to treat the Contract as repudiated by the Buyer, to suspend or cancel further delivery of Products and/or the provision of Services or any part thereof under that Contract or any other Contract between them and claim damages and/or receive reasonable cancellation fees; (ii) to affirm the Contract and claim damages from the Buyer; and (iii) to recover, in addition to the payment, interest on the unpaid amount (both before and after judgement) 1.5% per month or highest rate permitted by law, whichever is lower until payment in full is made. Such interest shall be calculated daily.

10. Products

- 10.1 The Supplier may modify specifications of Products (including without limitation parts, components and materials used) provided the modifications do not adversely affect the performance of the Products. In addition, the Supplier may furnish suitable substitutes for materials used.
- 10.2 All descriptions, illustrations and any other information relating to the Products contained in the Supplier's catalogues, brochures, price lists, advertising material and any sales or other particulars or literature are made by way of general description, are approximate only and for the general guidance and information of the Buyer. They shall not constitute warranties or representations by the Supplier nor shall they form part of any Contract.

11. Installation and maintenance of the Products

- 11.1 In case of installation of the Products or the provision of maintenance, the following conditions shall apply and Supplier's price and provision of installation or maintenance are subject to the following conditions at the expense and responsibility of Buyer (unless otherwise expressly agreed in the individual case):
- safe and secure climate controlled on-site storage so that Products and Supplier's tools (as applicable) are protected against theft and any damage or deterioration; any item lost or damaged during the storage period shall be repaired or replaced at Buyer's sole expense;
 - the timely and sufficient execution and completion of the preparatory works in accordance with all applicable safety, electrical and building codes as well as with Supplier's requirements;
 - the availability of Buyer's site to Supplier without obstacles in due time to enable Supplier to start installation or maintenance at the scheduled date;
 - the availability of the manpower and equipment necessary to place the Products in their final location or to provide the scheduled maintenance;
 - the acquisition of all permits, licenses, rights of way, etc. of the pertinent authorities required for or in connection with installation or maintenance to be performed; and
 - assistance with regards to obtaining (1) all required visas or any other permits necessary for Supplier's personnel or Supplier's subcontractors; and (2) customs clearance for tools, equipment, and materials necessary for installation or maintenance to be performed, unless otherwise agreed in writing by both parties.
- 11.2 If any or all of the above conditions are not, not properly or not timely complied with, or Supplier has to interrupt its installation or maintenance works, subsequent testing for reasons not attributable to Supplier, the period of completion shall be extended accordingly and any and all

additional costs resulting therefrom shall be for Buyer's account.

- 11.3 Supplier assumes no liability and offers no warranty for the fitness or adequacy of the premises or the utilities available at the premises in which the Products are to be installed, used or stored.

12. Acceptance of Installation

- 12.1 If installation of the Products is part of the Contract, Supplier shall notify Buyer when the Products installed will be ready for testing and acceptance, inviting Buyer to attend Supplier's standard tests or such tests as may have been agreed upon in the Contract to demonstrate compliance with the agreed specifications and/or to inspect the installation work.
- 12.2 If Buyer fails to attend the testing on the date notified, Supplier will commence with the tests according to Supplier's standard test procedures and these tests shall be considered performed in the presence of Buyer and acceptance shall in such case take place on the basis of the results stated in the test certificate signed by Supplier.
- 12.3 If Buyer rejects the Products installed it should submit to Supplier the reasons for such rejection in detail and in writing within ten (10) days after completion of the acceptance tests concerned. If, within Supplier's reasonable opinion, the rejection is justified, Supplier shall as a sole remedy correct the shortcomings as soon as possible and the relevant parts of the acceptance test shall be repeated within a reasonable period of time in conformity with the procedures outlined above.
- 12.4 Upon acceptance of the Products, Buyer will sign the acceptance certificate. If, within ten (10) days after completion of the acceptance test, Supplier has not received the acceptance certificate signed by Buyer or a report with a justified rejection, the Products installed shall be deemed accepted by Buyer. In any case, the acceptance shall be deemed to have been granted if Products are partially or in full put into operation.
- 12.5 Minor defects or deviations not affecting the operational use of the Products installed shall be stated in the acceptance certificate but shall not obstruct or suspend acceptance. Supplier undertakes to remedy such defects as soon as reasonably possible.
- 12.6 During the warranty period set forth in Section 13, Buyer shall notify Supplier of any hidden or latent defect immediately after its discovery.

13. Warranties

- 13.1 Buyer's warranty rights (warranty claims) shall require that the Buyer fulfils its duties as per Section 12.
- A. New Equipment Warranty.
- 13.2 Unless otherwise specified, the Supplier warrants that all Products shall be free from defects in material and workmanship under normal use for a period of (twelve) 12 months from the date of shipment to Buyer. In the event of installation this warranty period shall be for (twelve) 12 months from installation or eighteen (18) months from delivery, whichever comes first. Supplier does not warrant that operation of the Software (defined in Clause 15) will be uninterrupted or error free or that all program errors will be corrected. This warranty does not include any consumables which fail as a result of normal usage. The Buyer shall be responsible for determining that the Product is suitable for the Buyer's use and that such use complies with any applicable law.
- 13.3 Provided that the Buyer notifies the Supplier in writing of any claimed defect in the Product immediately upon discovery and any such equipment is returned to the original shipping point, transportation charges prepaid, including applicable duties, taxes, etc., within one year from date of shipment to Buyer and upon examination Supplier determines to its satisfaction that such equipment is defective in material or workmanship, i.e. contains a defect arising out of the manufacture of the equipment and not a defect caused by other circumstances, including, but not limited to accident, misuse, unforeseeable use, neglect, alteration, improper installation, improper adjustment, improper repair, or improper testing, Supplier shall, at its option, repair or replace such equipment. Supplier shall have reasonable time to make such repairs or to replace such equipment. If the equipment is modified or in any way altered without the explicit written consent of Supplier, then this warranty is null and void. .
- 13.4 Any repair or replacement of Products shall not extend the period of warranty. This warranty is limited to a period in accordance with Section 13.2, without regard to whether any claimed defects were discoverable or latent on delivery. This warranty is valid only for the Customer who is specified as the "ship to" address on the Purchase Order.
- B. Repairs on Equipment AFTER Initial Equipment Warranty; Limited Warranty.

13.5 Buyer may purchase repair services for the products through a separate Quotation for such services. Unless otherwise indicated, Supplier warrants that all repairs including parts and labor performed by Supplier Field Service or Factory Service personnel after the one-year New Equipment Warranty period described in Section 13.2 and 13.3 will be free from defects in materials and workmanship and shall conform to Supplier's specifications for six (6) months from date of service ("Service Warranty"). The Service Warranty is valid only for the Customer who is specified as the "Ship to" address on the Purchase Order and applies only to those parts repaired or replaced. If the equipment is repaired, modified or altered in any way without the explicit written consent of Supplier or by non-Supplier personnel, then the Service Warranty is null and void. All Service Warranty repairs will be done at Supplier's factory or at a factory authorized field service location; provided however, at Supplier's sole discretion, if Buyer so requests and pays for the added expense, Supplier may perform Service Warranty repairs at Buyer's site. Responsibility for shipment and insurance is set forth in Sections 6 and 7. If Buyer shall fail to pay when due any portion of the purchase price or any other payment required from Buyer to Supplier under this contract or otherwise, the Service Warranty granted under this Section may, at Supplier's sole option, be terminated.

C. Spare Parts.

13.6 Buyer may purchase spare parts for all Supplier equipment through a separate Quotation. Unless otherwise indicated, Supplier warrants that spare parts purchased from Supplier and installed by Supplier Service Personnel will be free of defects in materials for six (6) months from date of shipment. Spare parts purchased for installation by non-Supplier personnel and spare parts installed by non-Supplier personnel are not warranted by Supplier. Supplier will pay shipping costs (excluding any additional charges such as customs, duties, and taxes) of replacement spare parts under warranty. Responsibility for shipment and insurance is set forth in Sections 6 and 7. If Buyer shall fail to pay when due any portion of the purchase price or any other payment required from Buyer to Supplier under this contract or otherwise, the warranty granted under this Section may, at Supplier's sole option, be terminated.

13.7 The Supplier shall not be liable for the breach of the warranty or payment of damages in respect of Products supplied if: (i) the Buyer makes further use of such Products after giving the notice required in Section 13.3; (ii) the defect or failure arises from the Buyer's own fault; (iii) the defect arises from any drawing, design or specification supplied by the Buyer or from other materials or other property supplied by the Buyer or from any parts or items that have not been completely manufactured by the Supplier; (iv) the defect arises other than out of manufacture including without limitation, improper installation, misuse by Buyer or a third party, neglect or accident; (v) the defect arises out of the use of the Products beyond the scope established by the Supplier or approved in writing by the Supplier; (vi) the failure or defect results from the Buyer's unauthorized addition to or modification of, or failure to comply with the Supplier's written instructions relating to the Products or Services; and (vii) the failure or defect arises out of any breach by the Buyer of its obligations to provide information to the Supplier under this Conditions or Contract.

13.8 Supplier warrants to the Buyer that Services will be provided using reasonable skill and care.

13.9 If the Buyer fails to pay when due any portion of any payment due from the Buyer to the Supplier under a Contract or otherwise, all warranties and remedies granted under this section may, at the Supplier's option, be terminated.

13.10 The foregoing warranties are exclusive and exclude all other warranties, terms and conditions, express or implied by statute or otherwise, to the extent permitted by law, including without limitation warranties of quality or fitness for a particular purpose. The Supplier's sole and exclusive liability, and the Buyer's sole and exclusive remedy for breach of the warranties in this Section 13 shall be as set forth in Section 13 hereof.

14. Liability

14.1 Nothing in these Conditions shall exclude or limit the Supplier's liability for fraud or death or personal injury caused by its negligence or any other liability to the extent that the same may not be excluded or limited as a matter of law.

14.2 For Products (and subject to Section 14.1), Supplier's maximum aggregate liability under or arising out of any Contract, whether arising in contract, tort (including negligence) or otherwise, shall in no event exceed 100 % of the total amount actually received by Supplier in respect of Products under that Contract.

14.3 For Services (and subject to Section 14.1), Supplier's maximum aggregate liability under or in connection with the supply, non-supply or purported supply of Services under any Contract, whether arising in contract, tort (including negligence) or otherwise, shall in no event exceed 100% of the total amount actually received by Supplier in respect of Services under that Contract and in respect of Services continuing beyond one year, shall in no event exceed 100% of the total amount actually received by Supplier within the first twelve (12) months from the commencement of the Services.

14.4 Subject to Section 14.1, Supplier shall not be liable to the Buyer for any loss of profit, loss of income, loss of use, loss of business, loss of revenue, loss of data, loss of goodwill, or for any indirect or consequential loss or damage of any kind, in each case howsoever arising, whether such loss or damage was foreseeable and whether arising in tort (including negligence), contract or otherwise.

14.5 Any claim arising out of or in connection with a Contract must be commenced against the Supplier within one (1) year from the date upon which Buyer became aware of or should have become aware of Supplier's infringement of Buyer's rights, unless otherwise specified under applicable law.

15. Software

The Supplier shall at all times have and retain all rights, title and ownership of all software, firmware, programming routines, and documentation relating to such software supplied by the Supplier for use with the Products, or as Products of their own (stand-alone Products) and of all copies made by the Buyer or the end user of the Products (collectively "Software"). Supplier grants to Buyer a non-exclusive and non-transferable license to use such Software solely for use with the Products. Use of any Software shall be on the terms of Supplier's End User License Agreement (EULA). Buyer shall take all reasonable steps to protect Supplier's proprietary interest in the software and shall not transfer or otherwise provide the software to any third party. Other than software (Facility Pro, Facility Net, Facility-View, Pharmaceutical Net and Pharmaceutical-View Software), Buyer's license is limited to use of the software only on a single CPU. Copies of the software may be made only (previous Supplier's permission) as necessary to assure disaster recovery in case of media failure. Buyer agrees not to copy, sell or otherwise distribute the software without the express written agreement of Supplier.

16. Intellectual Property Rights

16.1 Notwithstanding delivery of and the passing of title in any Products and subject to section 15 and 16.3, nothing in these Conditions or any Contract shall have the effect of granting or transferring to, or vesting in, the Buyer any intellectual property rights in or to any Products and/or Services.

16.2 Buyer acknowledges and agrees that all property, copyright and other intellectual property rights in any work or tangible deliverable item arising from or created, produced or developed by the Supplier under or in the course of provision of any Services (the "Works"), wherever in the world enforceable, including without limitations all right title and interest in and to the Services and all documents, data, source code, drawings, specifications, articles, sketches, reports, inventions, improvements, modifications, discoveries, tools, scripts and other items relating thereto shall immediately upon creation or performance vest in and shall be and remain the sole and exclusive property of the Supplier and the Buyer shall acquire no right, title or interest in or to the same except as expressly stated in these Conditions or in the relevant Contract.

16.3 The Supplier grants to the Buyer a non-exclusive, non-transferable and non-sublicensable license to use such of the Works as are necessary, and where applicable, to the extent necessary, for the end user to obtain and utilize the intended benefit of the Products and/or Services. Source code will not be provided or escrowed unless specifically agreed upon between the parties. Supplier may invoice any costs related to escrow to the Buyer.

16.4 If any claim is made against the Buyer that the Products or Services infringe the patent, copyright or other intellectual property rights of any third party, the Supplier shall indemnify the Buyer against all losses, damages, costs and expenses finally awarded against, or incurred by, the Buyer in connection with the claim or paid, or agreed to be paid, by the Buyer in settlement of the claim provided that: (i) the Supplier is given full control of any proceedings or negotiations in connection with any such claim; (ii) the Buyer shall not make any admission of liability and shall give the Supplier all reasonable assistance for the purposes of any such proceedings or negotiations; (iii) except pursuant to a final award, the Buyer shall not pay or accept any such claim, or compromise any such

proceedings without the consent of the Supplier; (iv) the Buyer shall do nothing which would or might vitiate any insurance policy or cover which the Buyer may have in relation to such infringement and shall use its best efforts to recover any sums due thereunder and this indemnity shall not apply to the extent that the Buyer recovers any sums under any such policy or cover; (v) the Supplier shall be entitled to the benefit of, and the Buyer shall accordingly account to the Supplier for, all damages and costs (if any) awarded in favor of the Buyer which are payable by, or agreed with the consent of the Buyer (which consent shall not be unreasonably withheld) to be paid by, any other party in respect of any such claim; and (vi) without prejudice to any duty of the Buyer, the Supplier shall be entitled to require the Buyer to take such steps as the Supplier may reasonably require to mitigate or reduce any such loss, damages, costs or expenses for which the Supplier is liable to indemnify the Buyer under this section 16.4, which steps may include (at the Supplier's option) accepting from the Supplier non-infringing, modified or replacement Products or Services.

16.5 The Supplier shall have no obligation or liability under Section 16.4 insofar as the infringement arises from: (i) any additions or modifications made to the Products and/or Services in question, otherwise than by the Supplier or with its prior written consent; (ii) any information provided by the Buyer to the Supplier including without limitation any specification; (iii) performance by the Supplier of any work required to any Products, or performance of any Services, in compliance with the Buyer's requirements or specification; (iv) a combination with or an addition to equipment not manufactured or developed by the Supplier; or (v) the use of Products beyond that scope established by the Supplier or approved in writing by the Supplier.

16.6 Without prejudice to Section 14.1 this Section 16 states the entire liability of the Supplier and the exclusive remedy of the Buyer with respect to any alleged infringement of intellectual property rights belonging to a third party arising out of or in connection with the performance of any Contract. This Section 16 shall be subject to the limits of liability in Section 14.

17. Force Majeure

Notwithstanding anything to the contrary in these Conditions, the Supplier shall not be liable to the Buyer for any loss or damage which may be suffered by the Buyer as a direct or indirect result of the supply of Products or Services being prevented, delayed or rendered uneconomic by reason of circumstances or events beyond the Supplier's reasonable control including, but not limited to, war (whether declared or not), hostilities, invasion, act of foreign enemies, extensive military mobilization, civil war, acts of terrorism, acts of sabotage, acts of piracy, acts of god including natural disasters (including unusually severe weather and floods), epidemics and pandemics as well as related lockdown measures, acts of government in either sovereign or contractual capacity, explosion, fire, destruction of equipment, prolonged break-down of transport, telecommunication, information system or energy, general labour disturbance such as boycott, strike and lock-out. If due to such circumstances or events the Supplier has insufficient stocks to meet all its commitments the Supplier may apportion available stocks between its customers at its sole discretion. If the period of delay or non-performance continues for ninety (90) days, either party may terminate the Contract by giving written notice to the other party without additional costs or liability to the other party.

18. Confidential Information

18.1 Each party undertakes to keep confidential, not use for its own purposes outside the agreed scope and not without the prior written consent of the other party disclose to any third party, any information of a confidential nature belonging or relating to the other party which may become known to it unless such information is or becomes public knowledge (other than by breach of this Section) or is required to be disclosed by order of a competent authority, except that Supplier may share confidential information with its affiliated companies on a need to know basis and for the purpose of the Contract. Supplier shall ensure that such affiliated companies assume an equivalent duty of confidentiality as set forth hereunder.

18.2 Buyer shall not use Proprietary Information except as required for the use of the products, shall not disclose Proprietary Information to any third party, and shall not transmit any documents or copies thereof containing Proprietary Information to any third party, except as may be authorized in writing by Supplier.

"Proprietary Information" shall mean information or data of Supplier, or a third person to whom Supplier owes obligations of confidentiality, and which is furnished or to be furnished to Buyer in written, graphic or

machine-readable form and is marked proprietary or confidential. Where copies or alternative forms of information or data are received from Supplier, such information or data shall be considered Proprietary Information if at least one of said copies or alternative forms is marked proprietary or confidential.

This Section 18.2 shall not apply to information which Buyer demonstrates was in Buyer's possession prior to receipt from Supplier or information which Buyer demonstrates is or has become available to the public or general knowledge in the industry otherwise than through the fault of Buyer.

18.3 This Section 18 shall survive termination or cancellation of the Contract.

19. Cancellation, Rescheduling and Termination

19.1 Orders for Products accepted by the Supplier may be cancelled or rescheduled by the Buyer only with the written consent of the Supplier (which consent the Supplier may withhold for any reason). In case of cancellation, Buyer shall pay Supplier a cancellation fee equal to 30% of the purchase price. In case of variation or rescheduling, the Buyer shall indemnify the Supplier against the cost of all labor and materials used in connection with the Contract so varied or rescheduled and against all loss, damage cost, charges and expenses suffered or incurred by the Supplier as a result of that variation or rescheduling.

19.2 Contracts for Services shall commence on the commencement date identified in the relevant Contract and, subject to earlier termination in accordance with Section 19.3 or 19.4, shall continue in force for the initial term as prescribed in such Contract and thereafter for any renewal period (if any) set out in the Contract and thereafter without limit of period unless or until terminated by either party in accordance with Section 19.3 or 19.4. Supplier may retain the advance payment made by Buyer (if any) as set-off against the above-noted cancellation fee or actual loss suffered by Supplier.

19.3 Without prejudice to Section 19.4, either party may terminate a Contract for Services by giving ninety days (90) written notice to the other party.

19.4 Either party may terminate a Contract for Services immediately at any time by written notice to the other party if the other party commits a material breach of the Contract for Services which is incapable of remedy or which fails to be remedied.

19.5 Upon termination or expiry of any Contract, each party shall, except to the extent permitted or required to exercise or perform its continuing rights, or obligations hereunder, return to the other party all property of the other party then in its possession, custody or control and shall not retain any copies of the same.

19.6 Termination of any Contract in accordance with these Conditions shall not affect the accrued rights or liabilities of the parties at the date of termination.

19.7 Supplier may terminate parts of Contracts relating to delivery of Products and or provision of Services immediately at any time without any liability to the Buyer if (a) Buyer violates Supplier's Code of Business Ethics from time to time as published on the Supplier's website, and/or (b) the Buyer or its controlling shareholders or its ultimate beneficiary owner(s) becomes subject of sanctions or embargos, and/or (c) Buyer is otherwise subjected to legal proceedings with a potentially adverse effect on Supplier's reputation.

20. Insolvency of the Buyer

If: (i) the Buyer becomes insolvent, has a receiver, administrative receiver, administrator or manager appointed of the whole or any part of its assets or business, makes any composition or arrangement with its creditors, takes or suffers any similar action in consequence of debt or an order or resolution is made for its dissolution or liquidation (other than for the purpose of solvent amalgamation or reconstruction) or carries out or undergoes any analogous act or proceedings under an applicable foreign law; or (ii) the Buyer ceases, or threatens to cease to carry on business then, without prejudice to any other right or remedy available to the Supplier, the Supplier may treat any Contract as repudiated and/or withhold any further supply of Products and/or Services without any liability to the Buyer and, if any Products and/or Services have been supplied but not paid for, the price or fees shall become immediately due and payable notwithstanding any previous agreement or arrangement to the contrary.

21. Export Control

21.1 Buyer understands that where Supplier's obligations under any Contract to supply any Products or Services are subject to governmental export control laws and regulations, the performance of this Contract and Buyer's use or

export of any Products delivered by Supplier shall be conditional upon the grant of all necessary permits or licenses. Buyer shall provide all information and documentation, including end user certification, not in Supplier's possession which may be used in the necessary applications for permits or licenses concerning deliveries to Buyer. Supplier shall be relieved from its obligations to Buyer to supply any Products or Services to the extent that applications for permits or licenses for the same are refused by a relevant governmental authority or where sanctions are introduced. To the fullest extent permitted by law, Buyer shall have no right to claim compensation for damages, loss of business or otherwise arising from such a refusal or Contract termination.

- 21.2 Buyer shall not, directly or indirectly, sell, provide access to, export, re-export, transfer, divert, loan, lease, consign, transship (including stop in port), transport, or otherwise dispose of any Supplier's Product, material, Software (including source code) or technology to, via, or for: (i) any entity known to be headquartered in, or owned or controlled by a national of, any country or region subject to relevant sanctions at any time; (ii) any other individual or entity identified on a denied or restricted party list; or (iii) any activity or end-use restricted by applicable laws without first obtaining all required government authorizations at Buyer's own expense.
- 21.3 Supplier shall have the right, at its option, to suspend performance under or terminate any Contract if: (i) applicable comprehensive sanctions are imposed; (ii) the Buyer is designated as or determined to be a denied or restricted party under applicable law; or (iii) where the Supplier's obligations under these Conditions or any Contract to supply items or Services are subject to governmental export control laws and regulations, the performance of any Contract and Buyer's use or export of any item delivered by Supplier shall be conditional upon the grant of all necessary permits or licenses.
- 21.4 Buyer shall not sell, export, or re-export (directly or indirectly) any Products supplied by the Supplier that fall under Article 12g of the Council Regulation (EU) No 833/2014 to or for use in the Russian Federation, and any Products that fall under Article 8g of the Council Regulation (EU) No 765/2006 to or for use in the Republic of Belarus and shall undertake all efforts (including implementation of adequate monitoring mechanisms) to ensure that third parties within Buyer's commercial chain comply with this clause. Buyer shall upon request, provide the necessary documentation to prove its compliance with this clause.

Buyer shall immediately inform Supplier of any issues complying with this clause. Breach of this clause shall constitute a material breach of the Contract, and the Supplier shall be entitled to seek all appropriate remedies, including but not limited to immediate termination of the Contract.

- 21.5 Buyer will indemnify and hold harmless Supplier, its affiliates, and subcontractors, against any claims, damages, fines and costs (including attorney's fees and expenses) relating in any way to Buyer's noncompliance with this Section 21, including Buyer's and its third party business partners' violation of any applicable sanctions, embargoes and (re-) export control laws and regulations, and Buyer will compensate Supplier for all losses and expenses resulting thereof.

22 .Data Protection

- 22.1 Both parties will comply with all applicable requirements, including (but not limited to) the EU General Data Protection Regulation 2016/679, the Regulation (the "GDPR"), the Electronic Communications Data Protection Directive (2002/58/EC), the Privacy and Electronic Communications (EC Directive) Regulations 2003 (SI 2426/2003) and any applicable laws in any jurisdiction relating to the processing or protection of personal data and privacy, including where applicable the guidance and codes issued by any relevant supervisory authority from time to time (collectively the "Data Protection Laws").
- 22.2 The Supplier shall, where personal data is being processed on Buyer's behalf, supply the Products and/or Services in accordance with an appropriate data processing agreement (the 'DPA') containing suitable safeguards for the protection of personal data disclosed by the Buyer and both parties shall at all times comply with obligations contained therein. The Buyer hereby acknowledges and confirms that any breach of the DPA by the Buyer or its representatives or of this Section 22 entitles the Supplier to terminate any Contract in force between the parties immediately and with no liability.
- 22.3 The Buyer shall indemnify and hold the Supplier harmless from and against all losses, costs, claims, expenses or damages howsoever arising which the Supplier may incur or for which it may become liable as a result of or in connection with any breach or failure by the Buyer or its representatives to comply with this Section 22 including, but not limited

to, all claims, proceedings or actions brought by a competent public authority and/or a data subject against the Supplier and for all claims, proceedings or actions brought against the Supplier and/or its subcontractors of its data protection obligations (including its data security obligations) under applicable Data Protection Laws.

23. Compliance with Laws

Buyer will comply with, and pay all costs associated with, all applicable laws, regulations, treaties, community laws, directives and administrative orders (collectively, "Laws") that relate to or govern the import, export, use, reuse, collection, treatment, recycling and disposal of the products and their components, including but not limited to those Laws pertaining to the proper reuse, collection, treatment, recovery and/or recycling of hazardous or other materials at the end of their useful life and reporting and registration obligations for same. For purposes of illustration only, "Laws" include, among others, all of the obligations of the importer of record or manufacturer under the Waste Electrical and Electronic Equipment Directive (as embodied in Directive 2002/96/EC) as it may be defined, transposed and implemented from time to time by applicable national laws of the country to which the products are shipped, or are used or sold (collectively, the "WEEE Directive"). Buyer is responsible for and will ensure that it will be able to fulfill such compliance obligations even if it transfers products covered by the WEEE Directive to another division, affiliate or other entity. At the request of Buyer as needed for reuse centers, treatment and recycling facilities in order to comply with the provisions of the WEEE Directive as implemented in the applicable country, Supplier will provide Buyer with information relating to components and materials contained in products and the location of dangerous substances and preparations in such products, if any. If applicable, Supplier will provide also information related to the take-back service, whereby the Buyer can return electric and electronic waste free of charge.

24. General

- 24.1 These Conditions and any Contract shall be governed by the laws of Italy. Each party consents and submit to the exclusive jurisdiction of and service of process by the courts of Italy. The parties agree that the United Nations Convention on Contracts for the International Sale of Goods is specifically excluded from application to these Conditions.
- 24.2 The parties agree to settle any claims or disputes arising out of or in connection with these Conditions or any Contract, including any question regarding its existence, validity or termination, by amicable negotiations. If no settlement can be reached through negotiations within sixty (60) days after either party has served written notice to the other requesting such negotiations, then any domestic claims or disputes arising out of or in connection with these Conditions or any Contract shall be referred to mediation, before resorting to litigation. The mediation process will be commenced by service by one party on the other(s) of a written notice that the dispute is to be referred to mediation (the "Commencement Notice"). The parties will then participate in good faith in the mediation. Unless otherwise agreed between the parties the mediator will be nominated by the Mediation Body ("Organismo") chosen by the party, pursuant to the provisions set forth by Legislative Decree No. 28 dated 4 March 2010. No party may commence any court proceedings arising out of any dispute in relation to these Conditions or any Contract until it has attempted to settle the dispute by mediation and either the mediation has been terminated or the other party has failed to participate in the mediation.
- In case of cross-border disputes, any dispute arising out of or in connection with these Conditions or any Contract, including any question regarding its existence, validity or termination, shall be referred to and finally resolved by arbitration under the London Court of International Arbitration ("LCIA"), which Rules are deemed to be incorporated by reference into this clause. The number of arbitrators shall be one (1). The seat, or legal place, of arbitration shall be London, England. The language to be used in the arbitral proceedings shall be English. The governing law of the contract shall be the substantive law of Italy.
- 24.3 Failure by the Supplier to exercise or enforce any rights hereunder shall not be deemed to be a waiver of any such right.
- 24.4 If any Conditions are found to be invalid, this shall not affect the rest of the Contract, which shall remain in full force and effect.
- 24.5 The Buyer may not assign, transfer, novate or otherwise dispose of all or any of its rights or delegate any of its obligations thereunder, in whole or in part, without the prior written consent of the Supplier.
- 24.6 These Conditions constitute the entire agreement and supersedes any prior agreement, understanding, representation or arrangement between the

parties, with respect to its subject matter.

- 24.7 Variation to any Contract must be in writing and signed by the parties.
- 24.8 All notices given under these Conditions shall be sent to the address of the other party set forth in the Quotation or in Contract. Notice will be deemed to be properly given if sent in writing and shall be deemed to have been served on the next working day from delivery if sent by email or fax, and on the day of receipt if sent by express courier or by registered mail.

Stamp and signature of the Buyer

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Date

In accordance with Article 1341 and Article 1342 of the Italian Civil Code, the Buyer acknowledges to have carefully read and expressly accepts in writing the following clauses of these Terms and Conditions of sale and Supply:

- 2 – Basis of sales
- 4 – Orders
- 5 – Prices and taxes
- 6 – Shipment and delivery
- 7 – Risk and passing of title
- 9 – Terms of Payment
- 11 - Installation and maintenance of the Products
- 12 – Acceptance of Installation
- 13 – Warranty
- 14 – Liability
- 15 – Software
- 16 - Intellectual Property Rights
- 17 – Force Majeure
- 19 - Cancellation, Rescheduling and Termination
- 20 - Insolvency of the Buyer
- 21 – Export control
- 22 – Data protection
- 24 – General

Stamp and Signature of the Buyer

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Date

ADDENDUM A – PROJECT SERVICES

If Buyer is purchasing Project Services from Supplier, the following terms and conditions will apply to the performance of the services by Supplier.

1. **Services:** Supplier will provide the services described in the order (the “Services”). The Services may include: (a) preparation of testing protocol, procedures and validation documentation; (b) system design; (c) installation of Supplier’s products; (d) project management; (e) testing; (f) IQ/OQ; and (g) training. The Services will be performed by Supplier with the standard of care, skill and diligence as is customary in the industry.
2. **Billing:** Unless otherwise stated in the order or in this contract, Supplier will invoice Buyer for the Services on the completion of work or delivery of products or services or on the completion of milestones specified in the order, but may, in Supplier’s sole discretion, invoice Buyer monthly for the Services in the case of Buyer delay, cancellation of the order after Services have commenced or if Supplier determines at any time that Buyer’s financial condition requires more frequent billing and payment. Also, Supplier may, in its sole discretion, determine at any time that Buyer’s financial condition requires a deposit in advance, and, if such requirement is not met, Supplier may cancel the order or any part thereof and receive reasonable cancellation fees or the fees specifically provided herein, whichever is greater.

Payment is due to Supplier no later than thirty (30) days from date of invoice. If Buyer fails to pay any payment due hereunder when due, Supplier may recover, in addition to the payment due, interest thereon at the lesser of 1 1/2% per month or the maximum lawful monthly interest rate, and reasonable attorney’s fees.
3. **Project Contact:** Buyer will identify to Supplier an individual who will be the primary contact for Supplier for the Services. Supplier’s primary contact for Buyer will be Supplier’s Project Manager identified upon project commencement.
4. **Factory Acceptance Testing (“FAT”):**
 - (a) **Scope of FAT:** only applies to equipment manufactured by PMS.
 - (b) **Commencement of FAT; Changes.** Unless otherwise stated in the order, FAT will be conducted at Supplier’s site in Boulder, Colorado (“FAT Site”). FAT will commence within three (3) months of the date of the order or as otherwise mutually agreed.
 - (c) **FAT Protocol; Approval.** Buyer will approve FAT protocol and procedures (“FAT Documentation”) at least ten (10) working days prior to the commencement of FAT, and if not expressly approved, Buyer’s arrival at FAT Site will be deemed acceptance of the FAT Documentation. Any Buyer-requested changes to the FAT Documentation made less than 10 working days prior to the commencement of FAT will be billed to Buyer at the current hourly rate charged by Supplier.
 - (d) **Single Pass Testing.** Unless otherwise stated in the order, FAT is priced at single pass testing. Additional or repeat testing (other than following a “no-pass” test result), audits or other procedures requested by Buyer in the FAT Documentation or at the FAT Site and not included in the FAT Documentation will be billed to Buyer at the current hourly rate charged by Supplier.
 - (e) **Equipment.** Upon the determination of the date of commencement of FAT as provided above, Supplier will order and invoice Buyer all equipment, instrumentation and materials necessary for FAT as described in the order or made necessary by changes to the FAT Documentation (collectively, “Project Equipment”). Until FAT commences, the Project Equipment will be stored at a secure location at Supplier’s site, but dedicated for use with the order.
 - (f) **Acceptance.** At the completion of FAT, a “pass” result for the test or tests requested by Buyer in the FAT Documentation or otherwise will be considered Buyer’s acceptance of the FAT (“FAT Acceptance”). Upon FAT Acceptance, unless notified in writing prior to shipment by Buyer, Supplier is authorized to ship the Project Equipment to Buyer’s site specified in the order. If a delay in shipment is requested by Buyer as provided in this section, Supplier will store the Project Equipment at a site selected by Supplier for up to thirty (30) days after Acceptance at no additional charge. After such 30-day period, Buyer will be billed a storage fee of one-half percent (0.5%) of the cost of the Project Equipment per week up to eight (8) weeks after FAT Acceptance. Unless otherwise agreed in writing, after such 8-week period, Buyer must authorize Supplier to ship the Project Equipment or cancel the order. In the event of cancellation after FAT Acceptance, Buyer remains responsible to pay for the Project Equipment and all other charges permitted hereunder.
5. **Site Acceptance Testing (“SAT”):**
 - (a) **Commencement of SAT; Changes; Price Validity.** SAT will be conducted at Buyer’s site specified in the order (“SAT Site”) on a mutually agreeable date. The quoted price for SAT stated in the order is valid for ninety (90) days after FAT Acceptance. In the event that Buyer delays the commencement of SAT beyond such 90-day period due to the failure of Buyer, the SAT price is subject to increase at Supplier’s sole discretion.
 - (b) **SAT Protocol; Approval.** Buyer will approve SAT protocol, procedures, validation and other related documents (“SAT Documentation”) at least ten (10) working days prior to the scheduled commencement of SAT. The failure of Buyer to notify Supplier in writing of its request to delay the commencement of SAT at least three (3) working days prior to Supplier’s scheduled arrival at the SAT Site will be deemed acceptance of SAT Documentation. Any Buyer-requested changes to SAT Documentation made less than 10 working days prior to the commencement of SAT will be billed to Buyer at the current hourly rate charged by Supplier. Any Buyer request to delay the commencement of SAT made less than three (3) working days prior to the scheduled commencement date of SAT will result in additional charges equal to Supplier’s personnel’s travel costs and any and all other costs incurred by Supplier associated with the cancellation of SAT.
 - (c) **Commissioning.** Prior to SAT, Supplier’s Installation Manager will review and confirm all aspects of the installation and functionality of the Project Equipment.
 - (d) **Single Pass Testing.** Unless otherwise stated in the order, SAT is priced at single pass testing. Additional or repeat testing (other than following a “no-pass” test result), audits or other procedures requested by Buyer in the SAT Documentation or at the SAT Site and not included in the SAT Documentation will be billed to Buyer at the current hourly rate charged by Supplier.
 - (e) **Acceptance.** At the completion of SAT, a “pass” result for the test or tests requested

by Buyer in the SAT Documentation or otherwise and the delivery by Supplier to Buyer of any Project validation documentation will be considered Buyer’s acceptance of the SAT (“SAT Acceptance”). Upon SAT Acceptance, Supplier’s responsibility under the order is complete.

6. **Conditional Acceptance:** Buyer and Supplier may mutually agree to a “Conditional Acceptance” of FAT or SAT under the following circumstances:
 - (a) **Additional Testing:** If during FAT or SAT Buyer requests additional or extraordinary testing not included in the FAT Documentation or SAT Documentation (as the case may be), Supplier may require that Buyer “conditionally accept” the FAT or SAT prior to the performance of such testing. Conditional Acceptance means that upon a “pass” result for the FAT or SAT as stated in the applicable Documentation, Buyer is deemed to have accepted the FAT or SAT, as the case may be, for all purposes even if the additional or extraordinary testing results in a “no pass” result. Unless otherwise agreed in writing, Supplier does not guarantee a “pass” result for any additional or extraordinary testing.
 - (b) **Expense:** Buyer may be responsible for the cost to perform such additional or extraordinary testing pursuant to Sections 4(b) and (c) and 5(b) and (d) above with regard to changes to the FAT or SAT Documentation.
 - (c) **Satisfaction of Condition:** If Supplier agrees to perform the additional or extraordinary testing and such testing results in a “no-pass” result, Supplier will investigate the cause of the “no-pass” result. Buyer and Supplier will agree on resolution of and responsibility for the cost to correct the problem. In no event will any payment due to Supplier upon FAT Acceptance or SAT Acceptance be delayed due to a “no-pass” result under this Section 6.
7. **Buyer Responsibilities:**
 - (a) **Hazards.** Buyer will provide written notice to Supplier of any hazardous materials or environments at Buyer’s site. Buyer will supply, at Buyer’s expense, reasonable protection for Supplier’s personnel against such hazards and appropriate training of Supplier’s personnel for any special procedures and precautions necessary to perform the Services, including but not limited to, gowning procedures and corporate and site safety requirements.
 - (b) **Utilities.** Buyer will provide Supplier, at Buyer’s expense, all electrical power, water and other utilities necessary to perform the Services at Buyer’s facility.
 - (c) **Access; Overtime.** Buyer will provide Supplier with access to Buyer’s site during normal working hours. Unless otherwise stated in the order, Services performed at Buyer’s site after normal working hours will be billed at Supplier’s overtime rate. Supplier’s normal working hours while at Buyer’s site are 8:00 a.m. to 6:00 p.m. (Buyer’s time zone) or otherwise as agreed in writing between Supplier and Buyer.
 - (d) **Work Space.** Buyer will provide Supplier with the physical space at Buyer’s site necessary to reasonably to perform the Services.
8. **Training:** Training of Buyer’s personnel is charged to Buyer on “per day,” “per trainer” basis and, unless specifically provided in the order, is not included in the quotation for the Services. Buyer may request training services which will be billed separately to Buyer.
9. **Travel:** Reasonable travel expenses for Supplier’s personnel to Buyer’s site are charged to Buyer. Additional costs may be incurred by Buyer if travel requirements or dates are changed by Buyer.
10. **Project Communication:** Unless otherwise mutually agreed, electronic communications between Supplier and Buyer will be in the following formats: (i) general communications – standard MS-Office package; and (ii) other - PDF file format. The quote for Services includes delivery of a single hard copy of any documentation (or one CD) required to be provided by Supplier to Buyer. Buyer will be billed for any additional hard copies, CDs or other media requested by Buyer.
11. **Buyer Equipment:** Buyer is responsible for ensuring the performance, integrity and completeness of any Buyer-supplied equipment, instrumentation, software, documentation and other items used by Supplier in connection with its performance of the Services.
12. **Buyer Cooperation:** Buyer and Supplier will use their best efforts to review, approve and exchange documents, data and other information necessary or helpful to Supplier’s performance of the Services on a timely basis. Buyer acknowledges that the failure to timely turnaround documents necessary to Supplier’s performance of the Services may adversely affect Supplier’s ability to perform the Services or perform the Services within the deadlines set forth in the order. As such, Supplier has no liability for delay, or for failure to timely meet any milestones or other deadlines, and all applicable dates and deadlines will automatically be extended by at least the length of the delay should Buyer fail to comply with this Section.

If Supplier cannot schedule Services within 6 months due to failure of Buyer to comply with this section the uncompleted Services of this Order will be cancelled.
13. **Project Cancellation Fees:** Buyer may terminate the order upon five (5) working days prior written notice to Supplier upon payment of the cancellation fees provided in this contract. In particular, Buyer will be responsible for and pay Supplier for: (i) all labor performed; (ii) the cost of the Project Equipment and any other materials acquired or supplied by Supplier to, or on behalf of, Buyer; (iii) reasonable wind-down costs incurred in reassigning Supplier’s personnel to other projects; and (iv) all expenses incurred prior to the effective date of such notice, including but not limited to the cost of permits, project management, documents, and travel and lodging of Supplier’s personnel.

ADDENDUM B – CHEMICAL MONITORING POLICY

If Buyer is purchasing goods or Services from Supplier which are used in relation to monitoring or use with chemicals, the following terms and conditions will apply.

CHEMICAL MONITORING POLICY

Because of the variety of chemicals used, the varied conditions under which the chemicals can be used, and the extensive use of proprietary chemicals and gases, it is not possible for PMS to test all of the chemicals, and combinations of chemicals and gases, potentially used in its instruments. PMS has tested its products with many process chemicals and gases used in the semiconductor and related industries, and can assist the Buyer in determining compatibility of the instruments with chemicals which PMS has tested. PMS publishes the materials that come in contact with the process chemicals "wetted surfaces" to aid the user in determining compatibility. However, it is the responsibility of Buyer or any user to determine the compatibility and suitability of PMS instruments in each specific chemical, gas and user application prior to use. Details on wetted surface materials can be found on PMS published product specification sheets. In an effort to provide guidance to our customers the following is a partial list of chemicals that have been tested using PMS sensor and samplers: Acetone Water, Nitric Acid, Xylene, Ammonium Hydroxide, Sulfuric Acid, Potassium Hydroxide, 2-Propanol Hydrochloric Acid, Ammonium Fluoride, Sodium Hydroxide, Phosphoric Acid, Hydrofluoric Acid (HF), Trichlorotrifluoroethane (Freon TF), Trichloroethane, Methyl Ethyl Ketone, Hydrogen Peroxide, Acetic Acid (Concentrated), Toluene, Methanol.

It is important to note that not all PMS sensors are compatible with all chemicals. There are three (3) types of optical materials used in PMS sensors:

Fused Silica: Compatible with most chemicals with the exception of HF.

Sapphire: Compatible with most chemicals normally used in the semiconductor industry.

Magnesium Fluoride/Silicon Dioxide: Compatible with HF and most other chemicals with the exception of Ammonium Fluoride and Hydrogen Peroxide. Magnesium fluoride has been used previously in HSLIS or HVLIS sensors. Silicon Dioxide has been used in HPGP sensors. In both instances, these materials are used in anti-reflective coatings. If you are not sure which window material was used in the sensor in question, contact the PMS factory with the model and serial number of the sensor.

With regard to non-optical wetted materials, PVDF, which is used in some of the sample cells, is not recommended for long term use with Acetone. PFA Teflon is porous to some chemicals. Therefore, when changing chemicals being tested the sensor and/or sampler must be properly flushed with a suitable solvent. Buyer in most cases should be able to provide the relevant information regarding chemical compatibility and suitable solvents in a sensor or sampler. It is necessary to assess the effects of mixing the old chemical, which might have leaked into the Teflon, and the new chemical. In addition to chemical compatibility, Buyer should ensure the chemical temperature and operating environment meets the stated requirements for the product in question.

PMS also manufactures certain products with gas purge if that product may be used with flammable or reactive fluids or gases or operated in a corrosive vapor environment. Buyer should refer to the product specification sheets for those products with gas purge to determine any relevant certifications. In the case of heated chemicals or gasses, Buyer should avoid excessive thermal spikes and ensure the system is properly purged between chemical changes to avoid potential exothermic reactions.

Buyer must provide a suitable installation site and enclosure to meet regulatory and Buyer's internal chemical or gas safe handling requirements. Any enclosure should contain a spill to a safe area or direct it to a suitable drain while communicating a leak event. Such an enclosure should include isolation valves to support easy isolation and instrument removal for service. Unless otherwise stipulated in the quotation, PMS accepts no responsibility for damages caused by chemical or gas leaks due to inadequate installation or leak containment systems. Buyer should inspect all installations to ensure it meets their local regulatory and internal safety requirements before use.