



OMS 420 - EX

IN-SITU COMBUSTION OPTIMIZATION



PRICE LIST 2024
VALID 04/01 - 12/31/2024

OMS 420 Ex

O₂ & CO_e in-situ monitoring system

for use in hazardous area zone 2

The OMS 420 Ex - probe is used for continuous measurement of oxygen and combustible gas concentrations in flue gases up to 1.000 °C of various industrial furnaces/ovens/boilers, with hazard of explosive atmosphere at petroleum refineries, petrochemical plants and natural gas plants.

Main features:

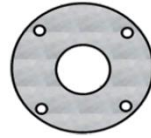
- ➔ hazardous area designation of use: Zone 2 equivalent to Class 1, Div. 2, Gr C/D
- ➔ special IP65 pressurized cabinet and z-purge controller, complying to **EX II 3G Ex pz II T3 Gc**
- ➔ unique hot solid electrolyte sensor for combustible CO_e -measurement without need for sample dilution with air as required for catalytic bead sensors (Pellistors)
- ➔ easy and fast, on site replaceable detector head with sensors (O₂ & CO_e)
- ➔ unique blow-back system for dusty flue gases
- ➔ integrated auto-calibration for accurate measurements
- ➔ integrated control unit with backlit display, operating key pad, dual galvanic isolated 4...20 mA output and digital output RS 485 (Modbus RTU)
- ➔ stainless steel SS316Ti flange 4" ANSI-150 lbs. with flow guidance probe tubes, from 300 mm up to 2 m length
- ➔ low energy consumption, no poisoning effects on sensors, stable in hot, wet and water saturated flue gases, dust tight and water proof enclosure, with optional ATEX heater for very low ambient air temperatures or ATEX Vortex cooler for high ambient temperatures



OMS 420Ex - In-Situ O2 - COe Monitoring System		QTY	Part No.	Unit price	Discount	Total Price
OMS 420Ex - In-Situ continuous oxygen monitoring system with:		1	110301	\$25,180.00	0%	\$25,180.00
<ul style="list-style-type: none"> • IP65 glass fiber reinforced polyester cabinet with conductive grey structural lacquer • cabinet overpressure controller unit with flushing solenoid valve and purging outlet valve • continuous supply of clean and oil free compressed air, pressure regulator is integrated • integrated O2 transmitter with control unit with backlit display, operation key pad • dual galvanic isolated 4-20mA analog output and digital output RS485 (Modbus RTU) • all password protected, intuitive software guided menu, with diagnosis software • service key to by-pass the power cut-off in case of opening the cabinet for service purpose • Ex-i stainless steel electric connection box of power supply and data cables • stainless steel 4" ANSI 150lbs flange, with 8x M18 mounting bolts and 4" ANSI gasket for stack or duct mounting • power supply 230Vac or 115Vac / 47-63Hz / 100W 						
SAME AS ABOVE - WITH ZrO2 sensor for O2 & COe		1	110302	\$28,340.00	0%	\$28,340.00

Select according probe tube from below list:

PROBES for above models		DN65 PN6 Flange		QTY	Part No.	Unit price	Discount	Total Price		
DN65-PN6 flanged probe tube, Inconel steel with gas flow guidance - prepared for blow-back using compressed air for use with OMS420Ex model, including wooden crate for transport										
NOTE: supply of compressed air (6..8bar, clean, oil and water free) is scope of user										
PROBE DN65	11.81"	~ 0.98'	(300mm)	Inconel Steel	1800°F	1	62393	\$1,278.00	0%	\$1,278.00
PROBE DN65	19.68"	~ 1.64'	(500mm)	Inconel Steel	1800°F	1	62393A	\$1,427.00	0%	\$1,427.00
PROBE DN65	29.52"	~ 2.46'	(750mm)	Inconel Steel	1800°F	1	62393B	\$1,481.00	0%	\$1,481.00
PROBE DN65	39.35"	~ 3.28'	(1000mm)	Inconel Steel	1800°F	1	62393C	\$1,599.00	0%	\$1,599.00
PROBE DN65	49.19"	~ 4.1'	(1250mm)	Inconel Steel	1800°F	1	62393D	\$1,690.00	0%	\$1,690.00
PROBE DN65	59.03"	~ 4.92'	(1500mm)	Inconel Steel	1800°F	1	62393E	\$1,770.00	0%	\$1,770.00
PROBE DN65	68.87"	~ 5.74'	(1750mm)	Inconel Steel	1800°F	1	62393F	\$1,802.00	0%	\$1,802.00
PROBE DN65	78.71"	~ 6.56'	(2000mm)	Inconel Steel	1800°F	1	62393G	\$1,862.00	0%	\$1,862.00



OPTIONS & ACCESSORIES		QTY	Part No.	Unit price	Discount	Total Price
Automatic calibration module, using permanently attached calibration gas cylinder		1	66148	\$2,468.00	0%	\$2,468.00
NOTE: calibration gas cylinder with mixture gas is user scope of supply						
Automatic blow-back module, user definable interval time by software		1	66149	\$1,009.00	0%	\$1,009.00
NOTE: client must insure class 2 compressed air						
Cabinet 500W/230Vac heater, temperature regulation by integrated thermostat		1	66151	\$1,363.00	0%	\$1,363.00
NOTE: for freeze protection at low ambient air temperatures from -45°C to +5°C						
Vortex air cooling system, temperature regulation by integrated thermostat		1	61883	\$3,578.00	0%	\$3,578.00
NOTE: for amb. air temperature >50°C, cabinet cooler requires 0,5m3/min compressed air supply						

SPARE PARTS		QTY	Part No.	Unit price	Discount	Total Price
Seal gasket for mounting flange ANSI150		1	61494	\$15.50	0%	\$15.50
Seal gasket for mounting flange DN65		1	52556	\$17.40	0%	\$17.40
Steel mash filter 35 x 2 mm, CrNi steel		1	62440	\$40.70	0%	\$40.70
Lock washer (1.4" x 0.06" (35 x 1.5 mm)		1	62427	\$11.20	0%	\$11.20
O2 sensor (replacement sensor)		1	11984	\$1,558.00	0%	\$1,558.00
O2 / COe sensor (replacement sensor)		1	13731	\$4,197.00	0%	\$4,197.00

SALES TERMS & CONDITIONS

A. Acceptance/Agreement

All orders are subject to acceptance by MRU Instruments, Inc. Additional or different terms or any attempt by the Buyer to vary, in any degree, any of the terms of this sales agreement form shall be deemed material and are objected to or rejected, but this sales agreement form shall not operate as a rejection of the Buyer's offer unless it contains variances in the terms of the description, quantity, price or delivery schedule of the goods.

B. Payment Terms

MRU Instruments payment terms are net 30 days unless special written arrangements have been made. MRU Instruments, Inc. may, at any time, suspend performance of any order or require payment in cash, security or other adequate assurance satisfactory to MRU Instruments, Inc. when, in MRU Instruments' opinion, the financial condition of Buyer or other grounds for insecurity warrant such action. MRU Instruments, Inc. reserves the right to assess late charges on accounts due past 30 days at the rate of 18% per annum. All goods are shipped Ex Works and are the property of the Buyer upon shipment.

C. Cancellation/Termination

Upon written notice of cancellation or termination for the Buyer's convenience of standard catalog items, for standard product only, the Buyer is subject to a minimum 15% charge on the remaining balance and a charge reflecting a reversion to the quantity pricing of items actually delivered. In the event that the goods are special, non-standard or custom the Buyer may terminate this order in whole or in part for its convenience upon written notice to MRU Instruments, Inc. in which event MRU Instruments, Inc. shall be entitled to termination charges consisting of a percentage of the order price reflecting the percentage of the work performed prior to termination plus actual direct costs resulting from termination.

D. Remedies in the Event of Cancellation or Default

In the event the Buyer cancels this order, or becomes overdue on its account payable to MRU Instruments, Inc. by failing to pay for this order when due in accordance with the terms hereof, in addition to the charges assessed to the Buyer pursuant to Paragraphs B and C of this Agreement, the buyer shall be required to pay all costs of collection, including, whether suit be brought or not, attorney fees, court costs, collection expenses and other expenses which MRU Instruments, Inc. may incur or pay in the prosecution of defense of its rights hereunder whether in judicial proceedings at law or in equity, including bankruptcy court and appellate proceedings, or whether out of court. In addition, MRU Instruments, Inc. shall retain the right to terminate this Agreement and Buyer's right to use the Software (as term is defined below) upon any material breach of this Agreement by Buyer. Buyer agrees to return to MRU Instruments, Inc. or to destroy all copies of the Software upon termination of this Agreement.

E. Delivery

The promised delivery date is the best estimate possible, based upon current and anticipated manufacturing capabilities, of when the product will be shipped. MRU Instruments, Inc. assumes no liability for loss, damages or consequential damages due to delay.

In any event, MRU Instruments, Inc. shall not be in default for any failure to deliver Products to Buyer by the promised delivery date. In the event that MRU Instruments, Inc. so defaults, Buyer's sole remedy for such default shall be cancellation of the applicable order. MRU Instruments, Inc. shall have no other liability to Buyer as a consequence of any such default.

F. Force Majeure

Fulfillment of this order is contingent upon the availability of materials. MRU Instruments, Inc. shall not be liable for any delay in delivery or for non-delivery in whole or in part caused by the occurrence of any contingency beyond the control of either MRU Instruments, Inc. or suppliers to MRU Instruments, Inc. including but not limited to delay in transportation, labor disruption, earthquake, fire, acts of God, or any other act outside of MRU Instruments, Inc.'s reasonable control.

G. Warranty

MRU Instruments, Inc. expressly warrants that the materials covered by this sale will conform to the specifications, drawings or other descriptions specified by the Buyer or if none are so specified, to MRU Instruments' standard specifications for such material. The materials will be new and unless specified to the contrary on the order acknowledgment or invoice, will be free of all liens and encumbrances.

MRU Instruments, Inc. is in compliance in all material respects with the terms and conditions of all material permits, licenses and authorizations which are required under federal, state and local laws applicable to MRU Instruments, Inc. and relating to pollution or protection of the environment, except where the failure to obtain such authorizations could not be reasonably expected to have a material adverse effect on the business of MRU Instruments, Inc. or its customers. MRU Instruments, Inc. is not aware of any conditions, circumstances, activities, practices, incidents, or actions which could reasonably be expected to form the basis of any claim, action, suit, proceeding, hearing, or investigation of, by, against or relating to MRU Instruments, Inc., based on or related to the manufacture, processing, distribution, use, treatment, storage, disposal, transport, or handling, or the emission, discharge, release or threatened release into the environment, of any pollutant, contaminant, or hazardous or toxic substance, material or waste, or relating to the safety of employees, workers or other persons, other than such conditions, circumstances, activities, practices, incidents, or actions that are beyond reasonable knowledge of and control of MRU Instruments, Inc..

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H. Claims/Notice of Defects

Failure of the Buyer to object in writing to any merchandise shipped to it by MRU Instruments, Inc. within 30 days after receipt thereof will constitute complete acceptance by Buyer of such merchandise. Rejected material must be returned to MRU Instruments, Inc. within 45 days after receipt and with prior authorization from MRU Instruments, Inc. MRU Instruments, Inc. may (at its option) recondition or replace the rejected material to meet Buyer's specifications within a reasonable time period after receipt. Claims for shipping damage must be made with the carrier.

All products must be returned in the same packing conditions in which it left MRU Instruments, Inc.' manufacturing location(s) (anti-static rails and boxes, adequately protected, etc.). Buyer must pay return shipping.

I. Confidential Information

All drawings, diagrams, specifications and other materials furnished by MRU Instruments, Inc. and identified as confidential, or information which the Buyer knows or has reason to know is confidential, proprietary or trade secret information of MRU Instruments, Inc., relating to the use and service of articles furnished hereunder and the information therein, are proprietary to MRU Instruments, Inc.. Buyer may not reproduce or distribute such materials except to buyer's employees who may use the articles as part of their duties.

Customer agrees that it will take all reasonable measures to maintain the confidentiality of all confidential information in its possession or control, which will in no event be less than the measures it uses to maintain the confidentiality of its own information of equal importance. Accordingly, MRU Instruments, Inc. will be entitled to preliminary and permanent injunctive relief and other equitable relief for any breach of this Section I.

Buyer further acknowledges and agrees that the sale of products to Buyer does not convey any license express or implied, and Buyer shall not, manufacture, modify, reverse engineer, duplicate, otherwise copy or reproduce any of the products or any part thereof. MRU Instruments, Inc. will treat drawings, specifications or data furnished by Buyer as confidential, when identified as such, in connection with this purchase.

J. General Provisions

Any cause of action arising from this agreement, or breach of it, must be commenced within one year after the cause of action occurs. MRU Instruments, Inc. reserves the right to correct any stenographical or clerical errors in any of the writings issued by it. The terms and conditions of sale and any description on the face of MRU Instruments' writings constitute a complete and exclusive statement of the terms and conditions of the sale of the goods by MRU Instruments, Inc. to Buyer unless amended in writing between Buyer and MRU Instruments, Inc. Buyer may not assign any rights to, or delegate any performance owed under the agreement without the written consent of MRU Instruments, Inc.

This Agreement will be governed by and construed in accordance with the laws of the State of Texas. Any suit hereunder will be brought solely in the federal or state courts of Harris County, Texas, and Buyer hereby submits to the personal jurisdiction thereof. This agreement, as amended by any posted notices, constitutes the entire terms and conditions on products offered for sale by MRU Instruments, Inc.

MRU Instruments, Inc. may amend this Agreement at any time by posting the amended terms on its web site. Except as stated below, all amended terms shall automatically be effective after they are posted on the web site. This Agreement may not be otherwise amended except in a writing signed by Buyer and MRU Instruments, Inc.

This agreement was last revised on January 30, 2007.