



NOVA *EMISSIONS PRO*

EMISSION ANALYZER & COMPLIANCE SOFTWARE



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

NOVA plus EMI-PRO**Portable Multifunction emission Analyzer****For emission monitoring and combustion checking of various industrial sites**

Maximum flexibility through wireless remote control and versatility through 10 different measuring programs at oil-, gas- and wood firings as well as at large boilers. INCLUDING EMISSIONS PRO reporting SOFTWARE

**Distinguished advantages:**

The wireless remote control unit of the NOVA plus provides many new advantages to the user in view of measurements. Only the NOVA plus Base Unit+needs to be placed at the point of measurement, while the user controls all functions comfortably at a more convenient location. This constitutes a significant advantage, particularly in constricted rooms! Air temperature measurement is possible with the RCU! The RCU can be used as a stand-alone measuring unit for (e.g.) pressure, temperature, etc., and furthermore it can also be used as data logger. Due to the active gas cooling system (option) and automatic condensate pump, the NOVA plus is also suitable for long-term measurements. The purchase of additional measuring devices can be saved in many cases because of manifold options and the possibility to connect external detectors and measuring elements.

Fuel types:

natural gas, liquid gas,
light oil, heavy oil, pellets, coal and
user-definable fuel types.

Functions of the NOVA plus "Base Unit":

- ~ Robust metal enclosure mounted aluminum framed case
- ~ Gas sensors, probe, condensate separator, PTFE filter
- ~ Speed printer
- ~ Temperature measurements: T-Gas, T-Air
- ~ Measurement of stack pressure, differential pressure and stack draft
- ~ Li-Ion battery
- ~ Peltier gas cooler for long-term measurements *

**Functions of the RCU:**

- ~ Remote control of all instrument functions
- ~ Brilliant 3,5" TFT high resolution color display
- ~ Data storage of measured values and transfer to PC
- ~ SD card (2 GB), mini USB port
- ~ Contactless battery charging or alternatively using USB-port
- ~ Li-Ion battery for approx. 30 hours continuous operation and stack draft
- ~ AUX socket (e.g. for intake of external transmitter) *
- * option of the RCU "Comfort" model**
- ~ Pressure manometer
(pressure, differential pressure, barometric pressure) *
- ~ 2 Channel temperature measurement *
- ~ Flow velocity measurement (using a Pitot tube or Vane) *
- ~ T-Air measurement (alternatively to base station) *
- ~ Data transfer to PC via Bluetooth *

Continuous Measurement of:

- ~ O₂ 0 . 25,00 %
- ~ Combustion air temperature up to 572 °F
- ~ Stack gas temperature up to 1200 °F (or up to 2000 °F with adequate high temperature sampling tube)
- ~ Continuous concurrent stack draft measurement

Basic functions & Equipment of the NOVA plus Base Unit:

- O₂ sensor 0 ...25% - Standard, **can be upgraded to Long Life sensor (see above)**
- Other measurements like CO, NO, NO₂, SO₂, CO high, CO very high, H₂S and CO₂ are optionally available, totally up to 5 electrochemical sensors are possible!
- Emission calculations like: mg/m³, NO_x as mg/m³ NO₂, true measurement of NO_x = NO + NO₂, including O₂ referencing (normalization) to user definable value
- High energy Li-Ion battery (minimum 20 hours operation time), with induction charging of RCU device

- Combustion calculations, based on the large fuel type list like:
CO₂, excess air, heat losses, combustion efficiency, flue gas dew point
Gas temperature measurement up to 1200°F
(optional: up to 2012°F, with special probe tubes)
Built-in speed printer with easy paper loading
Wall-plug, universal grid power supply, 100-240Vac/50-60Hz, 12V DC/SA

EMISSIONS PRO software:

The MRU EmissionsPro software installed on your laptop, in combination with the MRU NOVA plus gas analyzer, is an easy to use and intuitive tool that makes frequent engine / turbine / boiler monitoring a simple task. The software is a computerized version of the most common EPA and state protocols i.e. CTM-030, CTM-034, ASTM D6522. Completed tests can be viewed in PDF and Excel format.

NOVAplus - EMISSION PRO	WITH		
NOVAplus - EMISSION PRO - CASE: L 18.50" x W 9" x H 12" (L 470 x W 220 x H 300mm)			
● O2 sensor 0 ...25% - <i>Long Life sensor 4 to 5 years life expectation</i>			
● CO/H2 compensated sensor	0 -	4,000 ppm	overload 20,000 ppm
● NO sensor	0 -	1,000 ppm	overload 5,000 ppm
● NO2 sensor	0 -	200 ppm	overload 1,000 ppm
● Low energy, high efficiency Pellet Gas Cooler with condensate pump			
● CO sensor protection using additional purging pump			
● Separate CO sensor protection by Purafil filter, recommended for use at CHP engines			
● Internal Sample Flow Monitoring to check internal filters, pump, hoses			
● Automatic zeroing of analyzer			
● Calculated CO2 or optional NDIR measured CO2			
● Gas temperature up to 1200°F using stainless steel / up to 2000°F using Inconel probe tubes			
● Combustion air temperature: 32°F - 572°F (short plug for ambient air is included)			
● Stack / Differential pressure: +/- 40 inH2O (-100mbar ... +100mbar)			
● Differential temperature measurement			
● O2 referencing (normalization) to user definable value			
● Emission calculations like: mg/m3, with calculation of NO(x) = 1,05*NO and NO(x) as mg/m3 NO2			
● Complete combustion calculation using large, country specific fuel type list			
● Strong, high performance gas sampling pump for high suction sampling			
● Docking station for remote control with wireless, inductive charging of remote control unit RCU			
● Mini-USB interface to PC and SD-card slot for large volume data logging, incl. SD-card			
● Internal data storage for up to 16,000 measurements!			
● High energy Li-Ion battery, for up to 10 hrs. operation time			
● Wall-plug, universal grid power supply, 100-240Vac/50-60Hz / 12V dc			
● Built-in speed printer with easy paper loading			
● Robust metal enclosure mounted inside aluminum framed case			

QTY	Part No.	Unit price	Discount	Total Price
1	947022EMI	\$11,057.00	0%	\$11,057.00



PC software "EMISSION PRO", reporting software included

The MRU EmissionsPro software installed on your laptop, in combination with the MRU NOVA plus gas analyzer, is an easy to use and intuitive tool that makes frequent engine / turbine / boiler monitoring a simple task. The software is a computerized version of the most common EPA and state protocols i.e. CTM-030, CTM-034, ASTM D6522. Completed tests can be viewed in PDF and Excel format.



RCU - Remote Control Unit #63860 BASIC - WITH

- Display of measured values via brilliant 3,5" TFT high resolution color display
- Storage and transmission of measured results via SD card or mini USB port
- Automatic measurement incl. data logging function, user-definable Determination of average value, storing on SD card and printing
- DUAL Bluetooth module for wireless data transfer to PC/Notebook and
- Inductive charging via NOVA plus base station or by means of mini USB cable
- High-capacity Li-Ion battery for approx. 30 hours operation



STORAGE AND TRANSPORTATION	QTY	Part No.	Unit price	Discount	Total Price
Additional storage for LARGE aluminum transport case (will be mounted below the transport case)	1	65513	\$183.00	0%	\$183.00
LARGE Case: L 18.50" x W 8.66" x H 4.72" (L 470 x W 220 x H 120mm)					
Waterproof transport case	1	999-CASE NP	\$484.00	0%	\$0.00

RCU - Remote Control Unit	COMFORT - WITH	QTY	Part No.	Unit price	Discount	Total Price
Wireless Remote Control „Comfort“ Model for analyzer operation		1	63861UP	\$344.00	0%	\$344.00
<p>As an alternative to the remote control "Basic" model</p> <p>Also usable as an independent temperature and pressure measuring device</p> <p>Functions as remote control basic model, but with the following additional features:</p> <ul style="list-style-type: none"> • Integrated differential pressure measurement 100 hPa, incl. sensor (manometer) • Differential temperature measurement, 2x type „K“ sockets (thermometer) • Combustion air temperature measurement (alternatively to basic model) • AUX socket to connect external sensors (e.g. HC sensor, humidity sensor) • SD-Card (data logger function) (option #63901) <p>UPGRADE PRICE FROM STD RCU # 63860 to COMFORT RCU # 63861</p>						<p>Comfort model connections</p>

SENSORS - electro chemical - select up to 3 additional sensors	QTY	Part No.	Unit price	Discount	Total Price
Sensor OPTION - CO Very High 0 - 40,000 ppm overload 100,000 ppm	1	63992	\$1,099.00	0%	\$1,099.00

OPTIONS & ACCESSORIES	BASE UNIT	QTY	Part No.	Unit price	Discount	Total Price
Active VENT port with forced sample gas ventilation via internal pump		1	10172	\$435.00	0%	\$435.00
Water stop incl.: Acrodisk replacement filter with O-ring		1	13360	\$194.00	0%	\$194.00
NOTE: Only possible in combination with gas cooler!						

INDUSTRIAL PROBE HANDLE - Additional probe tube needed (different lengths available)	QTY	Part No.	Unit price	Discount	Total Price
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OPTION # 1 - Industrial Probe handle with sampling line.
Industrial probe handle for exchangeable probe tubes; integrated NiCrNi thermocouple; type "K" connector
VITON gas sampling hose and Silicone draft hose; stainless steel connectors. With:

UNHEATED	QTY	Part No.	Unit price	Discount	Total Price
Sampling line and handle VITON - 9' (2.7 m)	1	63981	\$342.00	0%	\$342.00
Sampling line and handle VITON - 16' (5.0 m)	1	63982	\$398.00	0%	\$398.00
HEATED Industrial probe handle 266°F (+130°C) temperature regulated - 110 VOLT - 380W including glass wool filter					
9' HEATED sampling line	1	66052-110V	\$1,977.00	0%	\$1,977.00
16' HEATED sampling line	1	66053-110V	\$2,095.00	0%	\$2,095.00
<i>Additional probe tube needed - see below</i>					

EXCHANGEABLE PROBE TUBE FOR INDUSTRIAL PROBE HANDLE (Cone is included)	QTY	Part No.	Unit price	Discount	Total Price
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exchangeable probe tube with cone

EXCHANGEABLE PROBE TUBE FOR INDUSTRIAL PROBE HANDLE (Cone is included)	QTY	Part No.	Unit price	Discount	Total Price
Exchangeable probe tube 12" x 0.3" (300 mm x 8 mm) High grade steel ≤ 1472°F (800°C)	1	55583	\$150.00	0%	\$150.00
Exchangeable probe tube 20" x 0.3" (500 mm x 8 mm) High grade steel ≤ 1472°F (800°C)	1	59292	\$415.00	0%	\$415.00
Exchangeable probe tube 20" x 0.4" (500 mm x 10 mm) High grade steel ≤ 1472°F (800°C)	1	55806	\$529.00	0%	\$529.00
Exchangeable probe tube 30" x 0.4" (750 mm x 10 mm) High grade steel ≤ 1472°F (800°C)	1	55672	\$389.00	0%	\$389.00

EXCHANGEABLE PROBE TUBE FOR INDUSTRIAL PROBE HANDLE (Cone is included)	QTY	Part No.	Unit price	Discount	Total Price
Exchangeable probe tube 20" x 0.3" (500 mm x 8 mm) Inconel ≤ 2000°F (1100°C)	1	63927	\$1,271.00	0%	\$1,271.00
Exchangeable probe tube 30" x 0.4" (750 mm x 10 mm) Inconel ≤ 2000°F (1100°C)	1	60626	\$668.00	0%	\$668.00

Heat deflector shield for high temperature radiation site (Ø6" with Ø0.31" hole for probe tube)	1	65481	\$133.00	0%	\$133.00
Heat deflector shield for high temperature radiation site (Ø6" with Ø0.47" hole for probe tube)	1	65481-12	\$152.00	0%	\$152.00

INDUSTRIAL PROBE HANDLE - Additional probe tube needed (different lengths available) **QTY** **Part No.** **Unit price** **Discount** **Total Price**



OPTION #2 - Industrial Probe handle with sampling line.
 With heated, easy replaceable quartz glass wool filter (incl. 100 g spare filter material)
 Gas sampling probe handle with 2,7 m VITON sampling line and gas temperature measurement using K-type thermocouple
 Note: automatic stack draft measurement will not be possible,

Industrial HEATED probe handle with 9' UNHEATED sampling line	1	64195	\$1,275.00	0%	\$1,275.00
<i>Additional probe tube needed - see below</i>					

EXCHANGEABLE PROBE TUBE FOR INDUSTRIAL PROBE HANDLE (Cone is included)				QTY	Part No.	Unit price	Discount	Total Price
Exchangeable probe tube	12" x 0.5" (300 mm x 12 mm)	High grade steel	≤ 1472°F (800°C)	1	11620	\$420.00	0%	\$420.00
Exchangeable probe tube	20" x 0.5" (500 mm x 12 mm)	High grade steel	≤ 1472°F (800°C)	1	11640	\$496.00	0%	\$496.00
Exchangeable probe tube	30" x 0.5" (750 mm x 12 mm)	High grade steel	≤ 1472°F (800°C)	1	11621	\$711.00	0%	\$711.00

EXCHANGEABLE PROBE TUBE FOR INDUSTRIAL PROBE HANDLE (Cone is included)				QTY	Part No.	Unit price	Discount	Total Price
Exchangeable probe tube	20" x 0.5" (500 mm x 12 mm)	Inconel	≤ 2000°F (1100°C)	1	61827	\$1,592.00	0%	\$1,592.00
Exchangeable probe tube	30" x 0.5" (750 mm x 12 mm)	Inconel	≤ 2000°F (1100°C)	1	58076	\$1,621.00	0%	\$1,621.00

CONSUMABLES and OTHER ACCESSORIES				QTY	Part No.	Unit price	Discount	Total Price
Combustion air temp. Probe 11.81" with PTFE cone and 10' cable				1	61518	\$294.00	0%	\$294.00
Combustion air temp. Probe 7.87" with PTFE cone and 10' cable				1	62928	\$209.00	0%	\$209.00
Additional SD card, 8GB (accredited for NOVA plus)				1	62994	\$25.70	0%	\$25.70
Service kit (spare filter, fuses, probe cleaning brush, silicone, duster, etc.)				1	63951	\$154.00	0%	\$154.00
Replaceable PTFE filter elements for condensate separator (washable and reusable up to 5 times)				1	10155	\$20.20	0%	\$20.20
Pre-filter for high dust applications				1	56356A	\$38.90	0%	\$38.90
Filter tabs for pre-filter 56356A (1pack = 50pcs.)				1	52798	\$40.00	0%	\$40.00
Printer paper, thermal paper, 58 mm x 20 m (1 pack. = 5 rolls)				1	59465	\$20.20	0%	\$20.20
Stack draft probe 9.84" x 0.31" with 9.84' sampling hose				1	64409	\$285.00	0%	\$285.00

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.

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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.