



# DF 252

GAS FLOW VELOCITY MONITOR



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



Measuring principle

DF252 is an integrating Pitot-tube which measures the flow in pipes or ducts on the differential pressure principle.

A major advantage of the integrating Pitot-tube over the orifice type is its favorable construction from flow-dynamic considerations. It causes the lowest residual pressure loss of all known differential pressure elements.

The dynamic and static pressure is averaged and recorded over a large number of measuring points, placed along the insert tube.



Specifications

|                        |  |
|------------------------|--|
| Technique:             | differential pressure measurement                        |
| Media:                 | flue gas, air, steam, other gases                        |
| Pressure transducer:   | 5 mbar   |
| Ranges (min...max):    | 3...30 m/s   |
| Accuracy:              | +/- 1% of reading  |
| Resolution:            | +/- 0,1 m/s  |
| Repeatability:         | +/- 0,2% of full scale                                   |
| Drift:                 | <+/- 1% / month  |
| Stack gas temperature: | up to + 600°C  |
| Probe length:          | 300 mm up to 2.000 mm                                    |
| Probe material:        | stainless steel 1.4571( SS316 Ti )                       |
| Flange style:          | DN80 PN6   |
| Flange temperature:    | up to +100°C   |
| Ambient temperature:   | -20°C up to + 50°C (see also optional freeze protection) |
| Ambient humidity:      | no dependency  |
| Analog output:         | 4 channel 4 – 20mA                                       |
| Power supply:          | 100 to 240Vac, 50-60Hz, 15 W                             |
| Weight:                | total 20 kg  |
| Enclosure:             | IP65   |
| Dimensions:            | 440 x 640 x 1200mm (W x H x D incl. probe tube)          |

| DF 252 Basic equipment   | QTY | Part No. | Unit price  | Discount | Total Price |
|--|-----|----------|-------------|----------|-------------|
| <b>DF 252 flow volume monitoring system with:</b><br>→ 300...1000 mm probe, 1.4571 stainless steel, DN80 PN6 flange<br>→ differential pressure transmitter,<br>→ including integral temperature and pressure measurement<br>→ including IP65 glass fiber enclosure<br>→ control unit DF250, for flow volume calculation with display and key board and with 3x 4-20mA analog output for: <ul style="list-style-type: none"> <li>• flow velocity</li> <li>• flow volume</li> <li>• temperature of sample</li> <li>• pressure of sample (if option installed)</li> </ul> | 1   | 870011   | \$24,388.00 | 0%       | \$24,388.00 |

| ADD ON PRICE   | QTY | Part No. | Unit price | Discount | Total Price |
|--|-----|----------|------------|----------|-------------|
| Add-on price for each additional 100mm active length of probe tube (the tube with holes)                     | 1   | 87021    | \$366.00   | 0%       | \$366.00    |
| Add-on price for each additional 100mm passive length of probe tube (needs to be longer in a cement chimney) | 1   | 87021P   | \$416.00   | 0%       | \$416.00    |

| OPTIONS   | QTY | Part No. | Unit price | Discount | Total Price |
|---|-----|----------|------------|----------|-------------|
| Cabinet heater for freezing protection in case of low ambient temperatures  | 1   | 87003    | \$1,258.00 | 0%       | \$1,258.00  |
| Manual ball valves for purge of probe at high dust sample   | 1   | 87004    | \$2,087.00 | 0%       | \$2,087.00  |
| Automatic purge of probe at high dust sample <span style="color: red;">NOTE: client must insure class 2 compressed air</span>     | 1   | 87005    | \$8,681.00 | 0%       | \$8,681.00  |
| Absolut (barometric) pressure device for correction of flow rate to norm conditions   | 1   | 87006    | \$2,186.00 | 0%       | \$2,186.00  |
| Vortex air cooling system, temperature regulation by integrated thermostat  | 1   | 61883    | \$3,578.00 | 0%       | \$3,578.00  |
| <span style="color: red;">NOTE: for amb. air temperature &gt;50°C, cabinet cooler requires 0,5m3/min compressed air supply</span> |     |          |            |          |             |

## 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.