# JFID NMHC Non-Methane Hydrocarbon Analyzer







### **APPLICATION**

- Continuous real-time analysis of Non-Methane Hydrocarbons NMHC, Total Hydrocarbons THC or Methane CH,
- · With dual detector

#### **BENEFITS**

- · Fast response time
- · Low maintenance
- · Relays for alarms, events and diagnostics
- · Independent of pressure fluctuation
- · Accurate and reliable
- · Adjustable ranges

#### **FEATURES**

- Proven, heated FID (Flame Ionization Detector)
- · Simultaneous monitoring of NMHC and CH,
- Simultaneous display of NMHC and CH<sub>4</sub>
- Display in ppm or mg/m³
- · Oxidation catalyst switchable
- Automatic start-up
- · Automatic calibration and span check
- · Automatic flame ignition
- · Electronic flow control
- · Built-in combustion air
- Built-in zero air
- · Complete diagnostics of all utilities

## **TECHNICAL DATA**

| Model                                   | JFID-ES NMHC   | JFID-PT NMHC   | JFID-ES NMHC Dual   |
|---|--|--|---|
| Description                             | 19" rack mounting  | portable   | 19" rack mounting   |
|   | 0  | peration   |   |
| Vacuum system                           | eductor or membrane pump   | membrane pump  | eductor   |
| Number of channels                      | 1  | 1  | 2 (simultaneous monitoring)   |
| Measurement range                       | free selectable, user defineable for both channels   |  |   |
| THC                                     | 10 000 ppm C3  |  |   |
| CH <sub>4</sub>                         | 0 – 3 000 ppm C1   |  |   |
| Detection limit                         | ±5 % of measurement range  |  |   |
| inearity                                | < 1 % of measured value  |  |   |
| Zero noise                              | max. 2 % from measuring range  |  |   |
| Span noise                              | max. 2 % from measuring range  |  |   |
| Selectable units                        | ppm, mg/m³   |  |   |
| Signal output (simultenous)             | 2 x 0/4 to 20 mA for channel THC or NMHC; 2 x 0/4 to 20 mA for channel CH <sub>4</sub>                         |  |   |
| Ambient temperature                     | with eductor: –5 °C to 40 °C<br>with membrane pump: 5 °C to 40 °C  | 5°C to 40°C  | -5 °C to 40 °C  |
| Response time (T90)                     | THC < 15 s;  | CH₄< 30 s  | THC; CH <sub>4</sub> < 5 s  |
| Sample gas flow                         | with eductor: 25 NI/h or 90 NI/h<br>with membrane pump: 25 NI/h  | 25 NI/h  | 25 NI/h or 90 NI/h  |
| Sample gas pressure                     | with eductor: 800 to 1 600 mbara with membrane pump: 800 to 1 200 mbara  | 800 to 1 200 mbara   | 800 to 1600 mbara   |
| Air humidity                            | < 90 % rel. humidity, 20 °C; < 50 % rel. humidity, 40 °C   |  |   |
| Geographical altitude                   |  | 0 to 1500 m above NN   |   |
|   | Cor  | nstruction   |   |
| Dimensions over all<br>(W x H x D) [mm] | with eductor: 483 x 135 x 401<br>with membrane pump: 445 x 135 x 401   | 380 x 155 x 380 PT63<br>with bottle holder: 483 x 290 x 510 PT63 | 483 x 135 x 310   |
| Weight                                  | with eductor: approx. 10 kg<br>with membrane pump: approx. 11 kg   | approx. 11 kg<br>with bottle holder: approx. 15 kg               | approx. 12 kg   |
| Detector temperature                    | adjustable up to 200 °C  | adjustable up to 170 °C  | adjustable up to 200 °C   |
| Catalyst temperature                    |  | 400 °C for combustion air and zero air                           |   |
| Oxidizer for NMHC                       |  | 230 °C to 250 °C   |   |
|   | U  | <b>Jtilities</b>   |   |
| Instrument air                          | with eductor: 3,0 to 3,9 bar / < 2 Nm³/h,<br>quality to ISO8573-1, 1.2.1<br>with membrane pump: air not needed | air not needed   | 3,0 to 3,9 bar / < 2 Nm³/h,<br>quality to ISO8573-1 1.2.1                               |
| -uel gas                                | hydrogen 0,7 to 1,0 bar / < 80 ml/min, quality 5.0   |  |   |
| Combustion air                          | with internal catalyst<br>or optional synthetic air<br>1,0 to 1,5 bar < 30 NI/h                                | with internal catalyst   | with internal catalyst<br>or optional synthetic air<br>1,0 to 1,5 bar < 30 NI/h         |
| Calibration gas                         | 2,0 to 2,5 bar / < 130 NI/h during calibration concentration 60 % to 80 % of the measurement range             |  |   |
| Zero gas                                | with internal catalyst or optional<br>nitrogen 2,0 to 2,5 bar/<br>< 130 NI/h quality 5.0                       | with internal catalyst   | with internal catalyst or<br>optional nitrogen 2,0 to 2,5 bar<br>< 130 NI/h quality 5.0 |
| Protection class                        | IP20   | IP40   | IP20  |
| Approvals / Signs                       | CE   | CE   | CE  |
|   | E  | Electrics  |   |
| Power supply                            | 115 V ± 10 % or 230 V ± 10 %; 48 Hz to 62 Hz   |  |   |
| Power consumption                       |  | < 500 W  |   |

## **ORDER CODE**

| Part number | Description  |
|-------------|--|
| 207.000800  | JFID-ES NMHC, one channel  |
| 207.000880  | JFID-ES NMHC, dual channel   |
| 207.030802  | JFID-PT63 portable NMHC with bottle holder, one channel            |
| 207.030883  | JFID-PT84 portable NMHC with bottle holder, dual channel           |
|             | Options  |
| 407.010076  | Gas connection fitting set SS                                      |
| 407.010077  | Gas connection fitting set SS and aluminum                         |
| 407.020048  | Conversion kit for external zero air                               |
| 407.020049  | Retrofit kit active carbon   |
| 207.900000  | Data storage for measurement values and status report 250 A4 pages |
| 407.040190  | Air pressure regulator with fine filter assembly                   |
| 407.040182  | Gas bottle pressure regulator for hydrogen                         |
| 407.040183  | Gas bottle pressure regulator for calibration gas                  |
| 407.040184  | Gas bottle pressure regulator for nitrogen                         |
| DAS 2       | Instrument air purifier  |

Gas Sampling **Probes** Heated Sample Lines Sample Gas Coolers









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