

**RACK MOUNTED - MULTI-CHANNEL TDL GAS ANALYZER
ISA DATA SHEET**



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| General | 1 | Manufacturer | Boreal Laser Inc. |
| | 2 | Analyzer Model No. | GasFinder3-MCr (Rack Mounted) Assembly (e.g. BL-GF3-MCr-_-_-_-_-_-_-_-_-_-) |
| | 3 | Measurement Head Model No. | No Measurement Head Selected |
| | 4 | Warranty Period | 10 years on Laser (Light Source) and 3 years Full Warranty |
| Analyzer Performance | 5 | Detection/Operating Principle | Tunable Diode Laser Absorption Spectroscopy (TDLAS) |
| | 6 | Sensor Type / Number of Sensors | Semiconductor Diode Laser (NIR) / One (1) or Two (2) Lasers per GasFinder3-MCr |
| | 7 | Channels / Measurement Heads | Two (2), Four (4), or Eight (8) Measurement Heads per GasFinder3-MCr |
| | 8 | Eye Safety | Class 1 AEL under IEC 60825-1 |
| | 9 | Function | Detects/monitors free gaseous molecules of one (1) or two (2) target gas(es) |
| | 10 | Calibration | Factory calibrated with recommended 2 year service interval |
| | 11 | Field Calibration | None available but Calibration Certificate Extensions provided (Optional Service) |
| | 12 | Automatic Validation | Internal Reference Cell (interrogated once a minute) |
| | 13 | User Function Testing | External Response Cell to "bump", "test" or "challenge" (Optional Accessory) |
| | 14 | Response Time | 1.0 to 1.7 (Default) Seconds per Sample |
| | 15 | Recovery Time | Instantaneous (Each sample is independent of the last) |
| | 16 | Analyzer Mounting Location | Remote (Within General Purpose Area) |
| | 17 | Display / Local Indication | HMI Touchscreen (ppm-m, light level, alarm status, and fault status) |
| | 18 | Internal Temperature Compensation | Dynamic (Piezo Resistive) or Manual Entry: -55°C to +150°C (-67°F to +302°F) |
| | 19 | Internal Pressure Compensation | Dynamic (MEMS) or Manual Entry: 50 to 200 KPaA (7.25 to 29 PSiA) |
| | 20 | Drift | ±0.1% over operating temperature and pressure ratings |
| | 21 | Warm-up / Start-up Time | 2 Minutes |
| | 22 | User Intervention on Start-up | None Required |
| | 23 | Operating Temperature | -55 to +65°C (-67 to 149°F) |
| | 24 | Operating Humidity | 0-100% RH (Non-Condensing) |
| 25 | Operating Pressure | 50 to 200 KPaA (7.25 to 29 PSiA) | |
| 26 | Fault Diagnostics | Status Code visible via HMI Display, Interface, Outputs, and Logfiles | |
| 27 | Internal Data Logging | User has access to 20 years worth of storage capacity via USB Stick | |
| 28 | Safety Integrity Level | SIL2 Suitable | |
| 29 | Obscuration / Beam Block | Operates down to 97% Obscuration (40x Turndown) | |
| 30 | Solar Blind | No False Positives from Solar Interference | |
| Analyzer Enclosure | 31 | Area Classification - Option #1 | None (Measurement Heads carry the Hazardous Area Certification) |
| | 32 | Area Classification - Option #2 | None |
| | 33 | Method of Protection | None (GasFinder3-MCr provides an IS Barrier to the Measurement Heads) |
| | 34 | Ingress Protection | None |
| | 35 | RFI/EMI | None |
| | 36 | Enclosure Material | Powder Coated Aluminum |
| | 37 | Enclosure Mounting | 19" Rack Mount |
| | 38 | Enclosure Dimensions (LxWxH) | 3U Enclosure: 374 x 446 x 132 mm (14.7 x 17.6 x 5.2 inch) |
| | 39 | Enclosure Weight | 12 kg (26.4 lbs) |
| | 40 | Shipping Weight | 15 kg (33 lbs) |
| | 41 | Storage Temperature | -55 to +65°C (-67 to 149°F) |
| | 42 | Power Cable Entry Size | None |
| | 43 | Communication Cable Entry Size | None |
| | 44 | Measurement Head Cable Entry Size | None |
| | 45 | Cable Glands: Power & Comm. | None |
| Analyzer Power | 46 | Power Consumption | 20 Watts |
| | 47 | Input Voltage | 120 - 220 VAC (Nominal) |
| | 48 | Power Terminals | Three (3) Pronged Plug |
| | 49 | Communication Terminals | Various (See Analyzer Outputs) |
| | 50 | Measurement Head Terminals | Single Mode Fibre (FC/APC) and Shielded CAT6/5e (RJ-45) / Coaxial (BNC) |
| Analyzer Interface Protocols | 51 | Serial | USB (Data Download via USB Stick), & Micro USB (Realtime Data via GasView) |
| | 52 | MODBUS | RS-485 |
| | 53 | HART | PV (ppm-m), SV (Light Level), TV (R2 Confidence Factor), & QV (TBD) |
| Output Options | 54 | Analyzer Outputs | MODBUS (RS-485), Ethernet (TCP/IP Serial), Serial (RS-232), One (1) Relay Output |
| | 55 | Analog Module | Four (4) HART 7 enabled Isolated/ Active Analog Loops per Analog Module |
| | 56 | Max. # of Analog Modules | GasFinder3-MC can support up to four (4) Analog Modules (e.g. 16 Analog Outputs) |
| | 57 | Configurable Analog Output Options | ppm-m, ppm, mg/Nm3, Light Level (Rx), & R2 Confidence Factor |
| | 58 | Analog Load Impedance | 1,000 ohms (3 Devices) |
| | 59 | Analog Range | 0-20 mA |
| | 60 | Low Light Alarm (Beam Block) | 2.7 mA |
| | 61 | General System Fault | 3.6 mA and 1 mA Disabled |
| | 62 | Relay Module | Six (6) Isolated Digital Relays per Relay Module (24 V, 1A Max) |
| | 63 | Max # of Relay Module(s) | GasFinder3-MC can support up to eight (8) Relay Modules (e.g. 48 Relay Outputs) |
| | 64 | Configurable Relay Output Options | Hi-Alarm, Hi-Hi-Alarm, Low Light (Low Rx) Alarm, & General System Fault |
| | 65 | Contact Relay Type | Voltage Free |
| | 66 | Analog Range Settings | User Programmable via HMI Touchscreen or HART Communicator |
| | 67 | Discrete Alarm Settings | User Programmable via HMI Touchscreen or HART Communicator |
| | 68 | Analog/Discrete Low Light Time Delay | 0 to 300 seconds - User Programmable via HMI Touchscreen or HART Communicator |

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| Lo-Range Hydrogen Fluoride (HFL) | 69 | Application/Use | Leak Detection - Toxic |
| | 70 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 71 | Units of Measure (Default) | Parts Per Million (ppm) |
| | 72 | Plume Size (Default) | 10 m Plume |
| | 73 | Hi-Alarm (Default) | 3 ppm |
| | 74 | HiHi-Alarm (Default) | 9 ppm |
| | 75 | Range of Actionable Concentrations | 0.5 - 25 ppm |
| | 76 | Recommended Path Length | 10 - 200 m |
| 77 | Maximum Recommended Cable Length | 300 m | |
| Lo-Range Hydrogen Fluoride Plus (HFL+) | 78 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 79 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 80 | Minimum Detectable Limit (MDL) | 0.4 ppm-m (0.3 mg/m ³ for sensitivity capped systems) |
| | 81 | Lowest Actionable Concentration | 0.8 ppm-m (2x MDL) |
| | 82 | Lowest Recommended Alarm Threshold | 2 ppm-m (5x MDL) |
| | 83 | Sensitivity | 0.1 ppm-m |
| | 84 | Full Scale | 250 ppm-m |
| | 85 | Maximum Recommended Path Length | 200 m |
| 86 | Maximum Recommended Cable Length | 300 m | |
| Hi-Range Hydrogen Fluoride Plus (HFH+) | 87 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 88 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 89 | Minimum Detectable Limit (MDL) | 4 ppm-m |
| | 90 | Lowest Actionable Concentration | 8 ppm-m (2x MDL) |
| | 91 | Lowest Recommended Alarm Threshold | 20 ppm-m (5x MDL) |
| | 92 | Sensitivity | 1 ppm-m |
| | 93 | Full Scale | 1,000 ppm-m |
| | 94 | Maximum Recommended Path Length | 200 m |
| 95 | Maximum Recommended Cable Length | 300 m | |
| Lo-Range Ammonia (NH3L) | 96 | Application/Use | Leak Detection - Toxic |
| | 97 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 98 | Units of Measure (Default) | Parts Per Million (ppm) |
| | 99 | Plume Size (Default) | 10 m Plume |
| | 100 | Hi-Alarm (Default) | 25 ppm |
| | 101 | HiHi-Alarm (Default) | 50 ppm |
| | 102 | Range of Actionable Concentrations | 1.6 - 650 ppm |
| | 103 | Recommended Path Length | 10 - 200 m |
| 104 | Maximum Recommended Cable Length | 300 m | |
| Lo-Range Ammonia Plus (NH3L+) | 105 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 106 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 107 | Minimum Detectable Limit (MDL) | 8 ppm-m |
| | 108 | Lowest Actionable Concentration | 16 ppm-m (2x MDL) |
| | 109 | Lowest Recommended Alarm Threshold | 40 ppm-m (5x MDL) |
| | 110 | Sensitivity | 2 ppm-m |
| | 111 | Full Scale | 6,500 ppm-m |
| | 112 | Maximum Recommended Path Length | 200 m |
| 113 | Maximum Recommended Cable Length | 300 m | |
| Ultra Hi-Range Ammonia (NH3UH) | 114 | Application/Use | Leak Detection - Combustible |
| | 115 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 116 | Units of Measure (Default) | Lower Explosive Limit - Meters (LEL-m) |
| | 117 | Hi-Alarm (Default) | 20% LEL-m (32,000 ppm-m) |
| | 118 | HiHi-Alarm (Default) | 40% LEL-m (64,000 ppm-m) |
| | 119 | Range of Actionable Concentrations | 0.05 - 3 LEL-m (8,000 - 500,000 ppm-m) |
| | 120 | Recommended Path Length | 10 - 200 m |
| | 121 | Maximum Recommended Cable Length | 300 m |
| Ultra Hi-Range Ammonia Plus (NH3UH+) | 122 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 123 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 124 | Minimum Detectable Limit (MDL) | 4,000 ppm-m |
| | 125 | Lowest Actionable Concentration | 8,000 ppm-m (2x MDL) |
| | 126 | Lowest Recommended Alarm Threshold | 20,000 ppm-m (5x MDL) |
| | 127 | Sensitivity | 1,000 ppm-m |
| | 128 | Full Scale | 0.1 - 50% or 50 - 100 % -m (1,000 - 500,000 ppm-m or 500,000 - 1,000,000 ppm-m) |
| | 129 | Maximum Recommended Path Length | 200 m |
| | 130 | Maximum Recommended Cable Length | 300 m |

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| Lo-Range Methane (CH4L) | 131 | Application/Use | Leak Detection - Incipient |
| | 132 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 133 | Units of Measure (Default) | Lower Explosive Limit - Meters (LEL-m) |
| | 134 | Hi-Alarm (Default) | 5% LEL-m (2,500 ppm-m) |
| | 135 | HiHi-Alarm (Default) | 10% LEL-m (5,000 ppm-m) |
| | 136 | Range of Actionable Concentrations | 0 - 17% LEL-m (20 - 8,500 ppm-m) |
| | 137 | Recommended Path Length | 10 - 200 m |
| | 138 | Maximum Recommended Cable Length | 300 m |
| Lo-Range Methane Plus (CH4L+) | 139 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 140 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 141 | Minimum Detectable Limit (MDL) | 2 ppm-m |
| | 142 | Lowest Actionable Concentration | 4 ppm-m (2x MDL) |
| | 143 | Lowest Recommended Alarm Threshold | 10 ppm-m (5x MDL) |
| | 144 | Sensitivity | 0.5 ppm-m |
| | 145 | Full Scale | 8,500 ppm-m |
| | 146 | Maximum Recommended Path Length | 200 m |
| 147 | Maximum Recommended Cable Length | 300 m | |
| Hi-Range Methane (CH4H) | 148 | Application/Use | Leak Detection - Combustible |
| | 149 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 150 | Units of Measure (Default) | Lower Explosive Limit - Meters (LEL-m) |
| | 151 | Hi-Alarm (Default) | 20% LEL-m (20,000 ppm-m) |
| | 152 | HiHi-Alarm (Default) | 40% LEL-m (40,000 ppm-m) |
| | 153 | Range of Actionable Concentrations | 0.004 - 5 LEL-m (200 - 250,000 ppm-m) |
| | 154 | Recommended Path Length | 10 - 200 m |
| | 155 | Maximum Recommended Cable Length | 300 m |
| Hi-Range Methane Plus (CH4H+) | 156 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 157 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 158 | Minimum Detectable Limit (MDL) | 100 ppm-m |
| | 159 | Lowest Actionable Concentration | 200 ppm-m (2x MDL) |
| | 160 | Lowest Recommended Alarm Threshold | 500 ppm-m (5x MDL) |
| | 161 | Sensitivity | 25 ppm-m |
| | 162 | Full Scale | 1,000,000 ppm-m |
| | 163 | Maximum Recommended Path Length | 200 m |
| 164 | Maximum Recommended Cable Length | 300 m | |
| Lo-Range Hydrogen Sulphide (H2SL) | 165 | Application/Use | Leak Detection - Toxic |
| | 166 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 167 | Units of Measure (Default) | Parts Per Million (ppm) |
| | 168 | Plume Size (Default) | 25 m Plume |
| | 169 | Hi-Alarm (Default) | 10 ppm |
| | 170 | HiHi-Alarm (Default) | 40 ppm |
| | 171 | Range of Actionable Concentration | 8 - 320 ppm |
| | 172 | Recommended Path Length | 25 - 200 m |
| 173 | Maximum Recommended Cable Length | 300 m | |
| Lo-Range Hydrogen Sulphide Plus (H2SL+) | 174 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 175 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 176 | Minimum Detectable Limit (MDL) | 100 ppm-m |
| | 177 | Lowest Actionable Concentration | 200 ppm-m (2x MDL) |
| | 178 | Lowest Recommended Alarm Threshold | 500 ppm-m (5x MDL) |
| | 179 | Sensitivity | 25 ppm-m |
| | 180 | Full Scale | 100,000 ppm-m |
| | 181 | Maximum Recommended Path Length | 200 m |
| 182 | Maximum Recommended Cable Length | 300 m | |
| Hi-Range Hydrogen Sulphide (H2SH) | 183 | Application/Use | Leak Detection - Combustible |
| | 184 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 185 | Units of Measure (Default) | Lower Explosive Limit - Meters (LEL-m) |
| | 186 | Hi-Alarm (Default) | 20% LEL-m (8,000 ppm-m) |
| | 187 | HiHi-Alarm (Default) | 40% LEL-m (16,000 ppm-m) |
| | 188 | Range of Actionable Concentrations | 0.1 - 5 LEL-m (2,000 - 215,000 ppm-m) |
| | 189 | Recommended Path Length | 10 - 200 m |
| | 190 | Maximum Recommended Cable Length | 300 m |
| Hi-Range Hydrogen Sulphide Plus (H2SH+) | 191 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 192 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 193 | Minimum Detectable Limit (MDL) | 1,000 ppm-m |
| | 194 | Lowest Actionable Concentration | 2,000 ppm-m (2x MDL) |
| | 195 | Lowest Recommended Alarm Threshold | 5,000 ppm-m (5x MDL) |
| | 196 | Sensitivity | 250 ppm-m |
| | 197 | Full Scale | 500,000 ppm-m (analog range(s) are user programmable) |
| | 198 | Maximum Recommended Path Length | 200 m |
| 199 | Maximum Recommended Cable Length | 300 m | |

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| Lo-Range Hydrogen Chloride (HCIL) | 200 | Application/Use | Leak Detection - Toxic |
| | 201 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 202 | Units of Measure (Default) | Parts Per Million (ppm) |
| | 203 | Plume Size (Default) | 10 m Plume |
| | 204 | Hi-Alarm (Default) | 2 ppm |
| | 205 | HiHi-Alarm (Default) | 5 ppm |
| | 206 | Range of Actionable Concentrations | 0.4 - 40 ppm |
| | 207 | Recommended Path Length | 10 - 200 m |
| | 208 | Maximum Recommended Cable Length | 300 m |
| | 209 | Retro-Array Requirements | 2-Channel (100m max path length) & 4-Channel (40m max path length) |
| Lo-Range Hydrogen Chloride Plus (HCIL+) | 210 | Maximum Recommended Cable Length | 300 m |
| | 211 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 212 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 213 | Minimum Detectable Limit (MDL) | 2 ppm-m |
| | 214 | Lowest Actionable Concentration | 4 ppm-m (2x MDL) |
| | 215 | Lowest Recommended Alarm Threshold | 10 ppm-m (5x MDL) |
| | 216 | Sensitivity | 0.5 ppm-m |
| | 217 | Full Scale | 2,500 ppm-m |
| | 218 | Retro-Array Requirements | 2-Channel (100m max path length) & 4-Channel (40m max path length) |
| | 219 | Maximum Recommended Cable Length | 300 m |
| Lo-Range Hydrogen Cyanide (HCNL) | 220 | Application/Use | Leak Detection - Toxic |
| | 221 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 222 | Units of Measure (Default) | Parts Per Million (ppm) |
| | 223 | Plume Size (Default) | 10 m Plume |
| | 224 | Hi-Alarm (Default) | 2.5 ppm |
| | 225 | HiHi-Alarm (Default) | 5 ppm |
| | 226 | Range of Actionable Concentrations | 1.6 - 40 ppm |
| | 227 | Recommended Path Length | 10 - 200 m |
| | 228 | Maximum Recommended Cable Length | 300 m |
| | 229 | Special Note | Ammonia (NH3) will cause interference, another absorption line will be selected. |
| Lo-Range Hydrogen Cyanide Plus (HCNL+) | 230 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 231 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 232 | Minimum Detectable Limit (MDL) | 8 ppm-m |
| | 233 | Lowest Actionable Concentration | 16 ppm-m (2x MDL) |
| | 234 | Lowest Recommended Alarm Threshold | 40 ppm-m (5x MDL) |
| | 235 | Sensitivity | 2 ppm-m |
| | 236 | Full Scale | 5,000 ppm-m |
| | 237 | Maximum Recommended Path Length | 200 m |
| | 238 | Maximum Recommended Cable Length | 300 m |
| | 239 | Special Note | Ammonia (NH3) will cause interference, another absorption line will be selected. |
| Lo-Range Carbon Monoxide (COL) | 240 | Application/Use | Leak Detection - Toxic |
| | 241 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 242 | Units of Measure (Default) | Parts Per Million (ppm) |
| | 243 | Plume Size (Default) | 10 m Plume |
| | 244 | Hi-Alarm (Default) | 100 ppm |
| | 245 | HiHi-Alarm (Default) | 200 ppm |
| | 246 | Range of Actionable Concentrations | 1.6 - 850 ppm |
| | 247 | Recommended Path Length | 10 - 40 m |
| | 248 | Maximum Recommended Cable Length | 5 m |
| | 249 | Special Note #1 | Only available in 2-channels |
| 250 | Special Note #2 | Visible Laser function from Optical Multi-Meter will not work with COL Transceivers | |
| Lo-Range Carbon Monoxide Plus (COL+) | 251 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 252 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 253 | Minimum Detectable Limit (MDL) | 8 ppm-m |
| | 254 | Lowest Actionable Concentration | 4 ppm-m (2x MDL) |
| | 255 | Lowest Recommended Alarm Threshold | 40 ppm-m (5x MDL) |
| | 256 | Sensitivity | 2 ppm-m |
| | 257 | Full Scale | 8,500 ppm-m |
| | 258 | Maximum Recommended Path Length | 40m |
| | 259 | Maximum Recommended Cable Length | 5 m |
| | 260 | Special Note #1 | Only available in 2-channels |
| 261 | Special Note #2 | Visible Laser function from Optical Multi-Meter will not work with COL Transceivers | |
| Hi-Range Carbon Monoxide (COH) | 262 | Application/Use | Leak Detection - Toxic |
| | 263 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 264 | Units of Measure (Default) | Parts Per Million (ppm) |
| | 265 | Plume Size (Default) | 10 m Plume |
| | 266 | Hi-Alarm (Default) | 100 ppm |
| | 267 | HiHi-Alarm (Default) | 200 ppm |
| | 268 | Range of Actionable Concentrations | 50 - 1,600 ppm |
| | 269 | Recommended Path Length | 10 - 200 m |
| 270 | Maximum Recommended Cable Length | 300 m | |

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| Ultra Hi-Range Carbon Monoxide (COUH) | 271 | Application/Use | Leak Detection - Combustible |
| | 272 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 273 | Units of Measure (Default) | Lower Explosive Limit - Meters (LEL-m) |
| | 274 | Hi-Alarm (Default) | 20% LEL-m (25,000 ppm-m) |
| | 275 | HiHi-Alarm (Default) | 40% LEL-m (50,000 ppm-m) |
| | 276 | Range of Actionable Concentrations | 0 - 4 LEL-m (500 - 500,000 ppm-m) |
| | 277 | Recommended Path Length | 10 - 200 m |
| | 278 | Maximum Recommended Cable Length | 300 m |
| Ultra Hi-Range Carbon Monoxide Plus (COUH+) | 279 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 280 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 281 | Minimum Detectable Limit (MDL) | 250 ppm-m |
| | 282 | Lowest Actionable Concentration | 500 ppm-m (2x MDL) |
| | 283 | Lowest Recommended Alarm Threshold | 1,250 ppm-m (5x MDL) |
| | 284 | Sensitivity | 60 ppm-m |
| | 285 | Full Scale | 500,000 ppm-m |
| | 286 | Maximum Recommended Path Length | 200 m |
| 287 | Maximum Recommended Cable Length | 300 m | |
| Ultra Lo-Range Carbon Dioxide Plus (CO2UL+) | 288 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 289 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 290 | Minimum Detectable Limit (MDL) | 0.4 ppm-m |
| | 291 | Lowest Actionable Concentration | 0.8 ppm-m (2x MDL) |
| | 292 | Lowest Recommended Alarm Threshold | 2 ppm-m (5x MDL) |
| | 293 | Sensitivity | 0.1 ppm-m |
| | 294 | Full Scale | 250 ppm-m |
| | 295 | Maximum Recommended Path Length | 0.5 m |
| | 296 | Maximum Recommended Cable Length | 20 m |
| 297 | Retro-Array Requirements | Not compatible with the Open Path (OPX) Head Assembly | |
| 298 | Special Note | 2-Channels Only & Atmospheric Concentrations can vary from 400-1,000 ppm | |
| Lo-Range Carbon Dioxide (CO2L) | 299 | Application/Use | Leak Detection - Incipient |
| | 300 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 301 | Units of Measure (Default) | Parts Per Million (ppm) |
| | 302 | Plume Size (Default) | 10 m Plume |
| | 303 | Hi-Alarm (Default) | 10,000 ppm-m (25% OF IDLH) |
| | 304 | HiHi-Alarm (Default) | 14,000 ppm-m (35% of IDLH) |
| | 305 | Highest Actionable Concentration | 24 - 8,000 ppm-m |
| | 306 | Recommended Path Length | 10 - 50 m |
| | 307 | Maximum Recommended Cable Length | 300 m |
| | 308 | Special Note | 2-Channels Only & Atmospheric Concentrations can vary from 400-1,000 ppm |
| Lo-Range Carbon Dioxide Plus (CO2L+) | 309 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 310 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 311 | Minimum Detectable Limit (MDL) | 120 ppm-m |
| | 312 | Lowest Actionable Concentration | 240 ppm-m (2x MDL) |
| | 313 | Lowest Recommended Alarm Threshold | 600 ppm-m (5x MDL) |
| | 314 | Sensitivity | 30 ppm-m |
| | 315 | Full Scale | 80,000 ppm-m |
| | 316 | Maximum Recommended Path Length | 50 m |
| | 317 | Maximum Recommended Cable Length | 20 m |
| | 318 | Special Note | 2-Channels Only & Atmospheric Concentrations can vary from 400-1,000 ppm |
| Hi-Range Carbon Dioxide (CO2H) | 319 | Application/Use | Leak Detection - Toxic |
| | 320 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 321 | Units of Measure (Default) | Parts Per Million (ppm) |
| | 323 | Plume Size (Default) | 10 m Plume |
| | 324 | Hi-Alarm (Default) | 20,000 ppm (50% of IDLH) |
| | 325 | HiHi-Alarm (Default) | 30,000 ppm (75% of IDLH) |
| | 326 | Highest Actionable Concentration | 100 - 50,000 ppm |
| | 327 | Recommended Path Length | 10 - 200m |
| | 328 | Maximum Recommended Cable Length | 300 m |
| | 329 | Special Note | Atmospheric Concentrations can vary from 400-1,000 ppm |
| Hi-Range Carbon Dioxide Plus (CO2H+) | 330 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 331 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 332 | Minimum Detectable Limit (MDL) | 500 ppm-m |
| | 333 | Lowest Actionable Concentration | 1,000 ppm-m (2x MDL) |
| | 334 | Lowest Recommended Alarm Threshold | 2,500 ppm-m (5x MDL) |
| | 335 | Sensitivity | 150 ppm-m |
| | 336 | Full Scale | 500,000 ppm-m |
| | 337 | Maximum Recommended Path Length | 200 m |
| | 338 | Maximum Recommended Cable Length | 300 m |
| | 339 | Special Note | Atmospheric Concentrations can vary from 400-1,000 ppm |

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| Lo-Range Acetylene (C2H2L) | 340 | Application/Use | Leak Detection - Combustible |
| | 341 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 342 | Units of Measure (Default) | Lower Explosive Limit - Meters (LEL-m) |
| | 343 | Hi-Alarm (Default) | 5% of LEL-m (1,250 ppm-m) |
| | 344 | HiHi-Alarm (Default) | 10% of LEL-m (2,500 ppm-m) |
| | 345 | Range of Actionable Concentrations | 0 - 10% LEL-m (8 - 2,500 ppm-m) |
| | 346 | Recommended Path Length | 10 - 200m |
| | 347 | Maximum Recommended Cable Length | 300 m |
| Lo-Range Acetylene Plus (C2H2+) | 348 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 349 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 350 | Minimum Detectable Limit (MDL) | 4 ppm-m |
| | 351 | Lowest Actionable Concentration | 8 ppm-m (2x MDL) |
| | 352 | Lowest Recommended Alarm Threshold | 16 ppm-m (5x MDL) |
| | 353 | Sensitivity | 2 ppm-m |
| | 354 | Full Scale | 2,500 ppm-m |
| | 355 | Maximum Recommended Path Length | 200 m |
| | 356 | Maximum Recommended Cable Length | 300 m |
| Lo-Range Ethylene (C2H4) | 357 | Application/Use | Leak Detection - Combustible |
| | 358 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 359 | Units of Measure (Default) | Lower Explosive Limit - Meters (LEL-m) |
| | 360 | Hi-Alarm (Default) | 20% of LEL-m (5,500 ppm-m) |
| | 361 | HiHi-Alarm (Default) | 40% of LEL-m (11,000 ppm-m) |
| | 362 | Range of Actionable Concentrations | 0 - 55% of LEL-m (40 - 15,000 ppm-m) |
| | 363 | Recommended Path Length | 10 - 200m |
| | 364 | Maximum Recommended Cable Length | 300 m |
| Lo-Range Ethylene Plus (C2H4+) | 365 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 366 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 367 | Minimum Detectable Limit (MDL) | 20 ppm-m |
| | 368 | Lowest Actionable Concentration | 40 ppm-m (2x MDL) |
| | 369 | Lowest Recommended Alarm Threshold | 100 ppm-m (5x MDL) |
| | 370 | Sensitivity | 5 ppm-m |
| | 371 | Full Scale | 15,000 ppm-m |
| | 372 | Maximum Recommended Path Length | 200 m |
| | 373 | Maximum Recommended Cable Length | 300 m |
| Lo-Range Oxygen (O2L) | 374 | Application/Use | Limiting Oxygen Content (LOC) |
| | 375 | Focus of Calibration | 5-Point Calibration ($\pm 3\%$ of Full Scale Accuracy) |
| | 376 | Units of Measure (Default) | Percent (%) |
| | 377 | Path Length (Default) | 1m |
| | 378 | Hi-Alarm (Default) | 3% (30,000 ppm-m) |
| | 379 | HiHi-Alarm (Default) | 5% (50,000 ppm-m) |
| | 380 | Range of Actionable Concentrations | 0.1 - 36% (1,000 - 360,000 ppm-m) |
| | 381 | Maximum Recommended Path Length | 4 m |
| | 382 | Maximum Recommended Cable Length | 5 m |
| | 383 | Special Note | For FDA & Hazardous Area requirements, this laser has a power output limit of 0.5 mW |
| Lo-Range Oxygen Plus (O2L+) | 384 | Application/Use | Quantitative - Ambient Monitoring/In-Situ |
| | 385 | Focus of Calibration | Comprehensive 15-Point Quantitative Calibration ($\pm 2\%$ of Reading Accuracy) |
| | 386 | Minimum Detectable Limit (MDL) | 1,000 ppm-m |
| | 387 | Lowest Actionable Concentration | 1,000 ppm-m |
| | 388 | Lowest Recommended Alarm Threshold | 1,000 ppm-m |
| | 389 | Sensitivity | 1,000 ppm-m |
| | 390 | Full Scale | 360,000 ppm-m |
| | 391 | Maximum Recommended Path Length | 4 m |
| | 392 | Maximum Recommended Cable Length | 5 m |
| | 393 | Special Note | For FDA & Hazardous Area requirements, this laser has a power output limit of 0.5 mW |
| Latest Revision | 394 | 1/17/24 | |