

**INSTRUMENT SPECIFICATION SHEET - HYDROGEN BROMIDE GAS MONITORS**

|                 |      |                                               |                                                                                                                                                                                  |  |  |
|-----------------|------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| GENERAL DATA    | 1    | INSTRUMENT TAG NUMBER                         |                                                                                                                                                                                  |  |  |
|                 | 2    | SERVICE                                       |                                                                                                                                                                                  |  |  |
|                 | 3    | P&ID NUMBER                                   |                                                                                                                                                                                  |  |  |
|                 | 4    | MANUFACTURER                                  | <b>Detcon</b>                                                                                                                                                                    |  |  |
|                 | 5    | MATERIAL SOURCE                               |                                                                                                                                                                                  |  |  |
|                 | 6    |                                               |                                                                                                                                                                                  |  |  |
|                 | 7    |                                               |                                                                                                                                                                                  |  |  |
| PROCESS DATA    | 8    | GAS(ES) TO BE DETECTED                        | <b>HBr</b>                                                                                                                                                                       |  |  |
|                 | 9    |                                               |                                                                                                                                                                                  |  |  |
|                 | 10   | CONTAMINANT AND / OR CORROSIVE GASES          |                                                                                                                                                                                  |  |  |
| SENSOR DATA     | 11   | SENSOR TAG NUMBER                             |                                                                                                                                                                                  |  |  |
|                 | 12   | MODEL NUMBER                                  | <b>DM-100-HBr</b>                                                                                                                                                                |  |  |
|                 | 13   | SENSOR TYPE                                   | <b>Electrochemical Cell</b>                                                                                                                                                      |  |  |
|                 | 14   | NUMBER OF SENSORS                             | <b>1</b>                                                                                                                                                                         |  |  |
|                 | 15   | SENSOR/TRANSMITTER HOUSING MATERIAL           | <b>Electropolished 316SS</b>                                                                                                                                                     |  |  |
|                 | 16   | CALIBRATED RANGE                              | <b>0-30 PPM</b>                                                                                                                                                                  |  |  |
| TRANSMITTER     | 17   | MODEL NUMBER                                  | <b>DM-100-HBr</b>                                                                                                                                                                |  |  |
|                 | 18   | HOUSING NEMA (OR EQUIVALENT) RATING           | <b>NEMA 7/4X</b>                                                                                                                                                                 |  |  |
|                 | 19   | ELECTRONICS ENVIRONMENTAL PROTECTION METHOD   | <b>100% Epoxy Encapsulation</b>                                                                                                                                                  |  |  |
|                 | 20   | SENSOR/TRANSMITTER HOUSING MATERIAL           | <b>Electropolished 316SS</b>                                                                                                                                                     |  |  |
|                 | 21   | TERMINAL JUNCTION BOX MATERIAL                | <b>NOTE 1</b>                                                                                                                                                                    |  |  |
|                 | 22   | TERMINAL JUNCTION BOX CONDUIT CONNECTION      | <b>3/4" NPTF - NOTE 7</b>                                                                                                                                                        |  |  |
|                 | 23   | OUTPUT SIGNAL, RANGE mA                       | <b>4-20 mA DC - NOTE 8</b>                                                                                                                                                       |  |  |
|                 | 24   | DIGITAL OUTPUT SIGNAL                         |                                                                                                                                                                                  |  |  |
|                 | 25   | MAXIMUM 4-20 LOOP LOAD, OHMS (@ 24 VDC)       | <b>800 ohms</b>                                                                                                                                                                  |  |  |
|                 | 26   | 4-20 OUTPUT SIGNAL, CABLE LENGTH (@ 24 VDC)   |                                                                                                                                                                                  |  |  |
|                 | 27   | SENSOR REPLACEABLE UNDER POWER                | <b>YES</b>                                                                                                                                                                       |  |  |
|                 | 28   | POWER SUPPLY                                  | <b>10-30 VDC</b>                                                                                                                                                                 |  |  |
|                 | 29   | DIGITAL DISPLAY                               | <b>none</b>                                                                                                                                                                      |  |  |
| CONTROLLER UNIT | 30   | CONTROL UNIT REQUIRED                         | <b>NO</b>                                                                                                                                                                        |  |  |
|                 | 31   | CONTROL UNIT TAG NUMBER                       |                                                                                                                                                                                  |  |  |
|                 | 32   | MODEL NUMBER                                  |                                                                                                                                                                                  |  |  |
|                 | 33   | NUMBER OF CHANNELS                            |                                                                                                                                                                                  |  |  |
|                 | 34   | NUMBER OF MULTI-CHANNEL RACKS                 |                                                                                                                                                                                  |  |  |
|                 | 35   | LOCATION                                      |                                                                                                                                                                                  |  |  |
|                 | 36   | MOUNTING                                      |                                                                                                                                                                                  |  |  |
|                 | 37   | HOUSING NEMA (OR EQUIVALENT) RATING           |                                                                                                                                                                                  |  |  |
|                 | 38   | POWER SUPPLY                                  |                                                                                                                                                                                  |  |  |
|                 | 39   | INTEGRAL LOGIC AND LOOP POWER                 |                                                                                                                                                                                  |  |  |
|                 | 40   | WARNING ALARM: LATCHING / UNLATCHING          |                                                                                                                                                                                  |  |  |
|                 | 41   | WARNING ALARM SETPOINT, IN MEASUREMENT UNITS  |                                                                                                                                                                                  |  |  |
|                 | 42   | CRITICAL ALARM SETPOINT, IN MEASUREMENT UNITS |                                                                                                                                                                                  |  |  |
|                 | MISC | 43                                            | CRITICAL ALARM: LATCHING / UNLATCHING                                                                                                                                            |  |  |
| 44              |      | ELECTRICAL AREA CLASSIFICATION                | <b>Class I Div.1 Group BCD (w/ XP Conduit) Class 1 Div.1 Group ABCD (w IS barrier)<br/>Class I Zone 1 Group IIC (w/ XP Conduit)<br/>Class 1 Zone 1 Group IIC (w/ IS barrier)</b> |  |  |

- 1) Standard Junction Box Offered as an Option: Electropolished 316 SS or Aluminum with epoxy paint finish
- 2) Warranty: Plug-in Sensor Element - 1 1/2 years, Intelligent Transmitter Module - 2 year.
- 3) Operating Temp. -20°C to +40°C, Operating Humidity 10% to 95% RH non-condensing
- 4) Accuracy/Repeatability is +/- 2% of Full Scale
- 5) Response Time: T90 <70 seconds
- 6) Pre-emptive fault diagnostics including input voltage, output signal, sensor integrity, transmitter integrity, operating temperature
- 7) Optional sizes on request: 20 mm or 1/2" NPT
- 8) 4-20 mA = 0-100% FS, 1 mA = Fault, 2 mA = In-Cal, 22 mA = Over-Range
- 9) Intrinsically-safe barrier design, no flame arrestor required, direct sample gas contact