

# Polilyte Plus HB Arc 425

Specification Sheet (Part/REF # 242428-2353)



Looking for an intelligent pH sensor that can survive in difficult industrial processes? The Polilyte Plus with Arc intelligent sensor technology can make it.

## Product Specifications

|                                 |  |
|---------------------------------|--|
| <b>Sensor Family</b>            | Polilyte Plus  |
| <b>Parameter</b>                | pH   |
| <b>Sensor Output</b>            | Arc: Modbus, 4 to 20 mA  |
| <b>a-length</b>                 | 425 mm   |
| <b>Electrical Connector</b>     | VP8  |
| <b>Measurement Principle</b>    | Combination electrode; pH potential measured against reference |
| <b>Measuring Range</b>          | pH 0 to 14   |
| <b>Sensitivity</b>              | 57 to 59 mV / pH at 25 °C                                      |
| <b>Zero Point</b>               | 0 ± 20 mV  |
| <b>pH Glass</b>                 | Hamilton type HB glass   |
| <b>pH Glass Resistance</b>      | Moderate   |
| <b>Membrane Shape</b>           | Spherical  |
| <b>Diaphragm</b>                | Single Pore  |
| <b>Number of Diaphragms</b>     | 2  |
| <b>Electrolyte</b>              | Polisolve Plus   |
| <b>Reference System</b>         | Hamilton Everef-L  |
| <b>Liquid Earth</b>             | No   |
| <b>Temperature Sensor</b>       | NTC 22 kOhm  |
| <b>Configurable Values</b>      | pH: pH, mV; Temperature: °C, K, °F                             |
| <b>Diameter</b>                 | 12 mm  |
| <b>Process Connection</b>       | PG13,5   |
| <b>Wetted Parts</b>             | Glass<br>EPDM (Ethylene propylene elastomer)                   |
| <b>Analog Interface 1</b>       | 4 to 20 mA for pH, programmable                                |
| <b>Analog Interface 2</b>       | 4 to 20 mA for Temp., programmable                             |
| <b>Analog Interface 1 and 2</b> | Galvanically not isolated; pulse width modulation 3.5 kHz      |
| <b>Digital Interface</b>        | RS485 Modbus (max. 31 addresses)                               |
| <b>Baud Rate</b>                | 4800, 9600, 19200, 38400, 57600, 115200 Bd                     |
| <b>Operating Voltage</b>        | 7 to 30 VDC max. 150 mW  |
| <b>Serial Number</b>            | Yes  |

|                                    |   |
|------------------------------------|---|
| <b>Recommended Storage</b>         | Hamilton Storage Solution or 3 M KCl                          |
| <b>Certificate</b>                 | Yes, with measured values in Buffer pH 4.01 and pH 7.00       |
| <b>ATEX Approval</b>               | No  |
| <b>IECEX Approval</b>              | No  |
| <b>Autoclavable</b>                | Yes, max. Temperature 130 °C                                  |
| <b>CIP</b>                         | Yes   |
| <b>Steam Sterilizable</b>          | Yes, max. Temperature 130 °C                                  |
| <b>Operating Temperature Range</b> | Analog interface: 0 to 110 °C; Digital interface: 0 to 130 °C |
| <b>Sample min Conductivity</b>     | 2 µS/cm   |
| <b>Pressure Range bar g</b>        | 0 to 16 bar (100 °C), 0 to 10 bar (130 °C)                    |

Specifications are subject to change without notice

**Spec. Version B**

<https://www.hamiltoncompany.com/process-analytics/sensors/242428-2353>