

# EasyFerm Plus ORP Arc 225

Specification Sheet (Part/REF # 243051)



Arc technology with a variety of sensor length options make this versatile sensor ideal for process control and monitoring in bioprocesses.

## Product Specifications

|                                 |                                                                     |
|---------------------------------|---------------------------------------------------------------------|
| <b>Sensor Family</b>            | EasyFerm Plus                                                       |
| <b>Parameter</b>                | ORP                                                                 |
| <b>Sensor Output</b>            | Arc: Modbus, 4 to 20 mA                                             |
| <b>a-length</b>                 | 225 mm                                                              |
| <b>Electrical Connector</b>     | VP8                                                                 |
| <b>Measurement Principle</b>    | Combination electrode; ORP potential measured against reference     |
| <b>Measuring Range</b>          | -1500 mV to +1500 mV                                                |
| <b>ORP Element</b>              | Pt ring                                                             |
| <b>Membrane Shape</b>           | Spherical                                                           |
| <b>Diaphragm</b>                | HP-Coatramic                                                        |
| <b>Number of Diaphragms</b>     | 1                                                                   |
| <b>Electrolyte</b>              | Pressurized Phermlyte                                               |
| <b>Reference System</b>         | Hamilton Everef-F, Silver ion barrier included                      |
| <b>Liquid Earth</b>             | Yes                                                                 |
| <b>Temperature Sensor</b>       | NTC 22 kOhm                                                         |
| <b>Configurable Values</b>      | ORP: mV; Temperature: °C, K, °F                                     |
| <b>Diameter</b>                 | 12 mm                                                               |
| <b>Process Connection</b>       | PG13,5                                                              |
| <b>Wetted Parts</b>             | Platinum<br>Glass<br>Ceramic<br>EPDM (Ethylene propylene elastomer) |
| <b>Analog Interface 1</b>       | 4 to 20 mA, 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 value in ORP buffer +475 mV                      |

|                                    |                                                               |
|------------------------------------|---------------------------------------------------------------|
| <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 140 °C                                  |
| <b>Operating Temperature Range</b> | Analog interface: 0 to 110 °C; Digital interface: 0 to 140 °C |
| <b>Sample min Conductivity</b>     | 100 µS/cm                                                     |