

Model 800-802 pH/ORP Analyzers



- Available in panel mount (800) or NEMA 4x/IP65 rated field mount housing (802)
- Logically arranged menu structure
- Large, two-line display simultaneously indicates measured value and temperature
- Intuitive calibration procedure
- Continuous sensor diagnostics
- Choose up to 4 contacts for use as:
 - Limit contacts
 - P(ID) controller
 - Timed outputs for simple cleaning
 - Chemical cleaning processes
- Solid state ISFET pH measurement option
- Optional 2nd current output for temperature
- HART® communication

To Achieve High Resolution In Specific Measurement Ranges, The Current Output Can Be Defined To Accommodate Bilinear Or Quasi-logarithmic Curves, Etc

Alarm Contacts and Error Current Output Can Be Independently Configured Based On Application

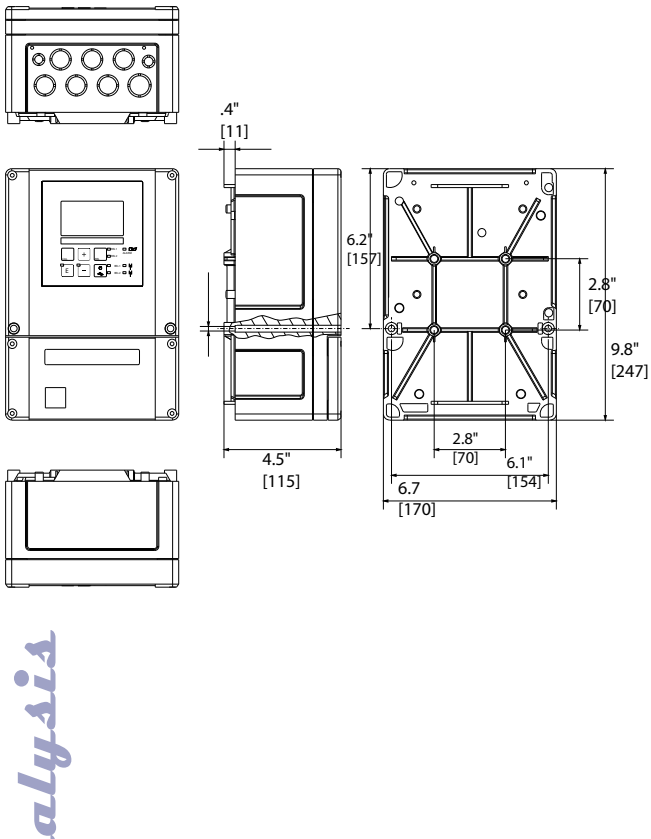
“Sensor Check” Diagnostic Continuously Monitors pH Glass and Reference Cell Performance

“Live Check” Feature Ensures System Is Continuously Active And Monitoring The Process

The Instrument Self Checks The Calibration Routine And Will Compensate For Buffer Sequence Errors

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| Input | Measured parameters | pH, ORP (redox), temperature |
| | Min. span for 0 / 4 ... 20 mA output signal | 10% of measuring range |
| pH Measurement | Measuring range | pH -2 ... 16 |
| | Display range | pH -2 ... 16 |
| | pH offset range | ±pH 2 |
| | Slope adaptation | glass: 38.0 ... 65.0 mV/pH (nominal 59.16 mV/pH) Antimony: 25.0 ... 65.0mV/pH (nominal 59.16 mV/pH) |
| | Zero point | glass: 5.0 ... 9.0 pH (nominal 7.0 pH) Antimony: - 1.0 ... 3.0 pH (nominal 1.0 pH) |
| | Max. length of cable to pH electrode | 50m |
| | pH Signal Input | Input resistance for nominal operating conditions |
| ORP Measurement | Display and measuring range | -1500 ... +1500 mV / 0 ... 100% |
| | ORP offset range | ±120 mV / ±50% |
| ORP Signal Input | Input resistance for nominal operating conditions | > 1 x 10 ¹² Ω |
| Temperature Measurement | Temperature sensor | Pt 100, Pt 1000 |
| | Measuring range | -20 ... +150 °C, -4... +302 °F |
| | Temperature offset range | ±5 °C |
| Digital inputs 1 and 2 | Voltage | 10 ... 50 V |
| | Power consumption | Max. 10mA |
| pH Signal Output | Current range | 0 / 4 ... 20 mA, galvanically separated; error current 2.4 / 22 mA |
| | Load | Max. 500Ω |
| | Max. resolution | 700 digits/mA |
| | Output range | Adjustable, min. Δ1pH |
| | Separation voltage | Max. 350 V _{ms} / 500 V DC |
| | Overvoltage (lightning) protection | Acc. To EN 61000-4.5: 1995 |
| ORP Signal Output | Current range | 0 / 4 ... 20 mA, galvanically separated |
| | Load | Max. 500Ω |
| | Max. resolution | 700 digits/mA |
| | Output range | Absolute: adjustable, min. Δ50mV Relative: fixed, 0...100% |
| | Separation voltage | Max. 350 V _{ms} / 500 V DC |
| | Overvoltage (lightning) protection | Acc. To EN 61000-4.5: 1995 |
| Temperature Signal Output (optional) | Current range | 0 / 4 ... 20 mA, galvanically separated |
| | Load | Max. 500Ω |
| | Max. resolution | 700 digits/mA |
| | Output range | Adjustable Δ10 ... Δ100% of upper range value |
| | Separation voltage | Max. 350 V _{ms} / 500 V DC |
| | Overvoltage (lightning) protection | Acc. To EN 61000-4.5: 1995 |
| Auxiliary Voltage Output | Output voltage | 15 V ± 0.6V |
| | Output current | Max. 10 mA |
| Contact Outputs (Potential-Free Changeover Contacts) | Switching current with resistive load (cos φ = 1) | Max. 2 A |
| | Switching current with inductive load (cos φ =0.4) | Max. 2 A |
| | Switching voltage | Max. 250 V AC, 30 V DC |
| | Switching power with resistive load (cos φ = 1) | Max. 1250 VA AC, 150 W DC |
| | Switching power with inductive load (cos φ = 0.4) | Max. 500 VA AC, 90 W DC |
| Limit Contacts | Pickup / dropout delay | 0 ... 2000 s |

| | | | |
|--------------------------------|--|--|-------------------------|
| Controller | Function (adjustable) | Pulse length / pulse frequency controller | |
| | Controller response | P, PI, PD, PID | |
| | Control gain K_p | 0.01 ... 20.00 | |
| | Integral action time T_n | 0.0 ... 999.9 min | |
| | Derivative action T_v | 0.0 ... 999.9 min | |
| | Period for pulse length controller | 0.5 ... 999.9 s | |
| | Frequency for pulse frequency controller | 60 ... 180 min -1 | |
| Alarm | Function (Switchable) | Latching / momentary contact | |
| | Alarm Threshold Adjustment Range | pH / temperature: complete measuring range | |
| | Alarm Delay | 0 ... 2000 s (min) | |
| pH Measurement | Reference temperature | +25°C, 77 °F | |
| | Resolution | pH 0.01 | |
| | Deviation of indication | max. 0.5% of measuring range | |
| | Reproducibility | max. 0.2% of measuring range | |
| | Measurement deviation, pH signal output | max. 0.75% of measuring range | |
| ORP Measurement | Resolution | 1 mV / 0.1% | |
| | Deviation of indication | max. 0.5% of measuring range | |
| | Reproducibility | max. 0.2% of measuring range | |
| | Measurement deviation, ORP signal output | max. 0.75% of measuring range | |
| Temperature Measurement | Resolution | 0.1 °C, 32 °F | |
| | Deviation of indication | max. 1.0% of measuring range | |
| | Measurement deviation, temperature signal output | max. 1.25% of current output range | |
| Ambient Conditions | Ambient temperature (nominal operating conditions) | -10 ... +55 °C, 14 ... 131°F | |
| | Ambient temperature (limit operating conditions) | -20 ... +60 °C, -4 ... 140°F | |
| | Storage and transport temperature | -25 ... +65 °C, -13 ... 149°F | |
| | Relative humidity (nominal operating conditions) | 10 ... 95%, non-condensing | |
| | Protection class of panel-mounted unit | IP 54 (front), IP 30 (housing) | |
| Physical Data / Design | Protection class of field housing | IP65, NEMA 4X | |
| | Electromagnetic compatibility | interference emission and interference immunity acc. to EN 61326 -1:1998 | |
| | Dimensions of panel-mounted unit (H × W × D) | 96 × 96 × 145 mm (3.8 x 3.8 x 5.7) | |
| | Mounting depth | approx. 165 mm (6.5") | |
| | Dimensions of field housing (H × W × D) | 247 × 170 × 115 mm | |
| | Weight of panel-mounted unit | max. 0.7 kg (1.54 lbs.) | |
| | Weight with field housing | max. 2.3 kg | |
| | Display | LC display, two lines, five and nine digits, with status indicators | |
| | Materials | Housing of panel-mounted unit | polycarbonate |
| | | Front membrane | Polyester, VU-resistant |
| Field housing | | ABS | |
| Power Requirements | Supply voltage | 100 / 115 / 230 V AC +10 / -15%, 48 ... 62 Hz 24 V AC/DC +20 / - 15% | |
| | Power consumption | max. 7.5 VA | |
| | Fuse protection | 250 V / 3.15 A | |



Dimensions Diagram

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|----|--|---|---|---|---|
| 80 | | | | | |
| | | <p>Analyzer Type</p> <p>0- 1/4 DIN Panel Mount (Model 800 Requires BNC/Tinned End Cables)</p> <p>2- NEMA 4X/IP65 Field Mount (Model 802 Requires Tinned End Only Cables)</p> | | | |
| | | | <p>Program Level</p> <p>PS pH/ORP Measurement with Extended Features</p> <p>IS ISFET Measurement Feature</p> | | |
| | | | <p>Power Supply</p> <p>2 230Vac</p> <p>3 115Vac</p> <p>7 24Vac/dc</p> | | |
| | | | | <p>Measurement Output</p> <p>0 pH/ORP</p> <p>1 pH/ORP with Temperature</p> <p>5 pH/ORP with HART</p> <p>6 pH/ORP with HART and Temperature</p> | |
| | | | | | <p>Relay Output</p> <p>10 2 Relays (Limit/PID/Timer)</p> <p>15 4 Relays (Limit/PID/ Cleaning)</p> <p>16 4 Relays (Limit/PID/Timer)</p> |

Order Code

| Part No. | Accessories |
|----------|--------------------------------------|
| 50086842 | Post Mounting Kit for Field Analyzer |
| OYY-101A | Weather Protection Cover |

Accessories

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