



PRESSURE, TEMPERATURE AND DIFFERENTIAL PRESSURE SWITCHES AND TRANSDUCERS FOR WATER & WASTEWATER APPLICATIONS

Solid State and Electromechanical



OVERVIEW AND APPLICATIONS

Established in 1931, United Electric Controls is the leader in the application of Threshold Detection and Switching Technology. The UE line of pressure and temperature switches, transmitters and transducers, meet the application challenges of Water and Wastewater Treatment. They provide precise pump control, handle slurry service, submersible pressure monitoring, and stand up to corrosive media and atmospheres. Included in UE's offering is the innovative solid state One Series that is the ideal solution for isolation ring monitoring, providing a switch, digital read-out and a 4-20 mA signal in one cost-effective instrument. Produced with UE's Lean Manufacturing processes that provide quick delivery and exceptional quality, UE products are the preferred choice for water and wastewater plants, engineering firms and integrators worldwide.

- Filter maintenance
- Reverse osmosis systems
- Wastewater transporting
- Valve actuator control
- Effluent monitoring
- Well and basin overflow
- Wastewater recovery
- Isolation ring pressure sensing
- Pump and level control
- Chemical injection
- SCADA system alarm and data input
- Leak detection

| | Fully Adjustable Electronic Pressure, Temperature & DP Switch | Single Switch, Cost-effective Design |
|--|---|--|
| UNITED ELECTRIC CONTROLS 180 Dexter Avenue, P.O. Box 9143 Watertown, MA 02471-9143 USA Telephone: 617 926-1000 Fax: 617 926-2568 http://www.ueonline.com | | |
| PRODUCT NAME | ONE SERIES | 100 SERIES |
| Ranges | 0-5 to 0-4,500 psi (0-344,7 mbar to 0-310,3 bar) 0-5 to 0-200 psid (0-344,7 mbar to 0-13,8 bar) -50 to 1000 °F (-45 to 538 °C) | 30 "Hg Vac to 5,000 psi (-1 to 344,7 bar) 300 "wc Vacuum to 250 "wc Pressure (-746,7 to 622,3 mbar) 0.2 "wcd to 500 psid (0,5 mbar to 34,5 bar) -180 to 650 °F (-117,8 to 343,3 °C) |
| Output | Single or Dual contact up to 1.5 A, SSR up to 10 A, 4-20 mA | One SPDT switch |
| Enclosure | Type 4X, epoxy coated aluminum, polycarbonate keypad display, IP66 | Die Cast aluminum, epoxy coated |
| Ambient Temperature Ranges | -40 to 158 °F (-40 to 70 °C) | -40 to 160 °F (-40 to 71 °C) 0 to 160 °F (-18 to 71 °C) |
| Approvals | | |
| Key Features | <ul style="list-style-type: none"> • Electronic Solid-State Reliability • Two-Wire Operation • Digital Display with Keypad Set-up • 100% of Range Adjustable On-Off Deadband • 4-20 mA Output Models • Continuous Diagnostic Health Check | <ul style="list-style-type: none"> • Compact, Weather-tight Design • Epoxy-coated Enclosure • Ease of Access to Wiring & Set-up • Pump Control Models with Wide On-Off Deadband • Wide Selection of Ranges and Wetted Parts |

ONE SERIES INNOVATION EXCELS IN THE W&WW INDUSTRIES







The Preferred Choice for Isolation Ring Monitoring and Precise Pump Controls

Three instruments in one; a pressure switch, digital gauge and transmitter!

- Reduces costs/increases reliability
- A single pressure port to reduce potential leaks
- Digital Display, Switch and 4-20 mA Output
- Self-checking diagnostics
- 0.1% of range repeatability
- Simple key-pad set-up and checking

Providing the perfect control of pump operation and sequencing!

- Fully Adjustable on/off start/stop over the full sensor range via front keypad
- Tune pump to precisely match operating sequence and tank levels
- Extend pump life and protect from cavitation
- #316 Stainless steel sensors with wide selection of operating ranges

| Multi Switch Output for Tank Level Control | Stainless Steel Construction, Compact Design | Submersible Pressure Transducers |
|---|---|--|
|  |  |  |
| 400 SERIES | 12 SERIES | P100 SERIES |
| 30 "Hg Vac to 6000 psi (-1 to 413,7 bar) 300 "wc Vacuum to 250 "wc Pressure (746,7 to 622,3 mbar) 1 "wcd to 200 psid (2,5 mbar to 13,8 bar) -180 to 650 °F (-117,8 to 343,3 °C) | 1 to 6000 psi (0,07 to 413,7 bar) 0.7" wcd to 150 psid (1,7 mbar to 10,3 bar) -130 to 650 °F (-90 to 343,3 °C) | 0 to 50 psi (0 to 3,4 bar) 1 to 10,000 psi (0,1 to 689,5 bar) |
| One, two or three SPDT switches | One or two SPDT, hermetically sealed, | 4-20 mA, 1-5 VDC |
| Die cast aluminum, epoxy coated | 300 Series Stainless steel, IP66 | 316 Stainless steel |
| -40 to 160 °F (-40 to 71 °C) | -40 to 160 °F (-40 to 71 °C) | -40 to 160 °F (-40 to 71 °C) |
|  |  |  |
| <ul style="list-style-type: none"> • 1, 2 & 3 Switch Output • Used for Fluid Level and Pump Staging • Wide Selection of Ranges and Wetted Parts • Low Pressure and DP ranges to 2"WC • Alarm & Shutdown signals in One Package | <ul style="list-style-type: none"> • Stainless Steel Enclosure for Corrosive Areas • Compact, Cylindrical Design • Hermetically-Sealed Switch • Excellent Performance Under Shock & Vibration • Certified for use in Hazardous Locations | <ul style="list-style-type: none"> • Submersible Construction • 316 Stainless Steel External Parts • Extended Cabling to Match Application • Choice of 1-5 VDC or 4-20 mA output |



Water & Wastewater Product Overview

ALTERNATIVE PRODUCTS FROM UE:

Pressure Transmitter

TX200 Series

- Welded, hermetically sealed, explosion-proof 316 Stainless steel construction
- Ranges 0 to 100 psi up to 25,000 psi
- Choice of field adjustable or fixed range models
- 4-20 mA or 1-5 VDC



Temperature Sensors

- Rugged designs for process and energy applications
- Nema 4X and explosion-proof heads available to match heat-trace, turbine combustion, and stack-emission applications



Differential Pressure Switches

24 Series

- Compact, cost-effective
- Single switch
- Range 1 to 45 psid (to 3,1 bar)



J21K Series

- All Metallic Sensors for corrosive and gas service
- Single switch
- Ranges 30" Hg Vac to 90 psid (-1 to 6 bar)



Hermetically-Sealed Protection

117 Series

- Single switch for corrosive and hazardous Division 2 locations
- Compact pressure, differential pressure and temperature models
- Hermetically-sealed, SPDT and DPDT output
- Epoxy-coated weather-tight design
- Convenient terminal block wiring



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