



Measure two same or different parameters including pH, conductivity, and ORP with our **ATS-X2000 Series** dual-channel controllers. Their isolated design ensures superior noise control. Industry-acceptable control loop and relay logic makes them the ideal economical choice. These controllers offer set-point values and relays for High and Low digital control.

Featuring an easy-to-use 6-button keypad, the **ATS-X2000 Series** also includes optional features like data logging and calibration history to enhance the user experience.

Note: A model selection guide is given at the end to help select the desired model.

SPECIFICATIONS

pH Channel	Measuring Range	pH: 0.00 - 14.00pH, Minimum resolution: 0.001, Accuracy: 0.5% Temperature: -50.0°C – 200.0°C, Resolution: 0.1°C, Linear Coefficient: ±1.0°C accuracy		
	Units	pH, mV		
	Calibration	Auto Calibration: 2 and 3-points calibration with slope indication. Compatible with all certified buffer solutions Manual Calibration: 2 and 3-points calibration with slope indication. Compatible with all certified buffer solutions. User may use any custom calibration solution for special purpose		
	Temperature Compensation	Linear Temperature Compensation through-out the sensor range 2-wire PT100/PT1000 RTD		
Conductivity Channel	Measuring Range	Conductivity: 0.000 µS/cm – 200 mS/cm, Minimum resolution: 0.001 µS/cm, Accuracy: ±0.5% TDS: 0.00 - 100 ppt, Minimum resolution: 0.001 ppm, Accuracy: ±0.5% Resistivity: 5.00Ω - 20MΩ, Minimum resolution: 0.001KΩ, Accuracy: ±0.5% Temperature: -50.0°C – 200.0°C, Resolution: 0.1°C resolution, Linear Coefficient: ±1.0°C accuracy		
	Units	Conductivity	TDS	Resistivity
		µS mS	ppm ppt	kΩ MΩ
	Calibration	Easy single point calibration using any certified conductivity calibration solution. Option to set cell constant manually		
	Cell Constant	2-pole Electrode: 0.01 – 10.0 /cm fixed, 0.01 – 10.0/cm freely selectable (user defined)		
	Temperature Compensation	Linear Temperature Compensation through-out the sensor range 2-wire PT100/PT1000 RTD		

ATS-X2000 Series

Dual-Channel Controllers

PRODUCT DATA SHEET



ORP Channel	Measuring Range	ORP: -2000mv to +2000mV, Minimum resolution: 0.001, Accuracy: 0.5% Temperature: -50.0°C – 200.0°C, Resoulution: 0.1°C resolution, Linear Coefficient ±1.0°C accuracy
	Units	mV (millivolts)
	Other Sensor Options	Ion-selective electrodes (ISE) are also compatible with the controller. Specify the electrode type before ordering
	Calibration	Auto Calibration: Single point calibration with +475mV standard calibration solution Manual Calibration: Single point calibration with any value with in the measuring range
Analog Output 1 & 2 (Isolated Outputs)		4~20mA corresponding to any selected parameter, ±0.001mA accuracy, 0.001mA resolution, maximum load 500Ω
Relays		1 (HI) – 24 VDC, 1A – On/Off Programmable 2 (LO) – 24 VDC, 1A – On/Off Programmable Relay function with customized dead band
Clock (Optional)		Internal Clock, 24 Hr format, ±1 min/month accuracy
SD Card (Optional)		Can save multiple values in SD Card, user can save values for up to 5 years with specific time interval Data logging on SD card at user-specified time interval. Save values for up to 5 years
Calibration History		Record keeping of previous calibration with date and time available only if internal clock and SD card options are opted
RS-485 Communication (Optional)		RS-485 Based communication with AT Systems software for microSD data retrieval MODBUS communication also available
Display		Graphical LCD (128px × 64px) with adjustable contrast and brightness
Mounting Type		Panel Mount
Panel Cutout Size		L x W (93mm x 93mm)
Dimensions		L x W x D (113.5mm x 113.5mm x 83mm)
Power Requirement		24 VDC (Maximum up to 35 VDC), 2.5 Watts
Weight (Assembly)		≈ 255 grams
IP Class Protection		IP65 (In Panel Mount Installation)

APPLICATIONS

- Reverse Osmosis Plants
- Boiler Feed Water
- Cooling Water
- Closed Loop Systems
- Drinking Water
- Pharmaceutical Industry
- Textile Industry
- Waste Water Industry
- Chemical Industry



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MODEL SELECTION GUIDE



ATS-X2000- A N 2

Parameters	
A	pH/pH
B	Conductivity/Conductivity
C	ORP/ORP
D	pH/ORP
E	Conductivity/pH
F	Conductivity/ORP

RT Clock, SD Card & Modbus	
N	No
S	Yes

4~20mA Analog Outputs	
2	Two

Example

ATS-X2000- A N 2

pH/pH Dual Channel Controller

No RT Clock, SD card or Modbus

Two 4~20mA analog outputs