



Digitally
Enabled



Digital
Services



Advanced Water Quality Monitoring Aqua2Trans

Reliable and Continuous Measurement of pH / ORP/ Conductivity / TDS / DO / Resistivity

Why Water Quality Monitoring Matters

Water is a critical resource used across a wide range of industries, from ultrapure and drinking water systems to process fluids and wastewater treatment. In sectors like pharmaceuticals, chemicals, semiconductors, power generation, oil & gas, food and beverage, textiles, and metals, water quality directly impacts both human health and process reliability.

However, maintaining consistent water quality is a growing challenge. Traditional manual testing methods often result in delayed detection, inconsistent readings, and increased risk of contamination, all of which can compromise product integrity and reduce operational efficiency.

Without a reliable, continuous monitoring system for key water quality parameters such as pH, conductivity, TDS, and dissolved oxygen, industries face several risks:

- **Unplanned Downtime** due to undetected water quality deviations
- **Inconsistent Product Quality**, leading to potential regulatory non-compliance
- **Increased Maintenance Costs** from reactive interventions and equipment wear

Real-time, accurate monitoring is no longer optional, it's essential for operational excellence and compliance.

Deliverables

- High accuracy in water parameter readings, ensuring reliable data for process control
- Reduces chemical consumption by 10-15% using corrective treatments, contributing to cost savings and environmental compliance
- Minimizes wear and tear, potentially extending equipment life by 20% due to reduced scaling and corrosion
- Lowers contaminant discharge by 15%, supporting regulatory standards and environmental compliance
- Reduces quality check interruptions, potentially increasing plant uptime by 10-15%

Benefits



Enhanced Process Efficiency

Consistent, real-time monitoring keeps water parameters within desired ranges, supporting stable and efficient plant operations



Cost Saving

Optimised resource use, extended equipment life, and reduced chemical waste contribute to lower operational costs



Enhanced Safety

Accurate monitoring safeguards both products and personnel by preventing contamination and hazardous conditions



Environmental Protection

Reliable water quality monitoring ensures adherence to environmental regulations



Industries We Serve



Power Plants

Monitors steam and water chemistry to enhance efficiency, control corrosion and scaling, and improve overall uptime



Water and Wastewater Treatment

Provides continuous, real-time monitoring to maintain operational efficiency and ensure compliance with environmental regulations



Petrochemical Industries

Prevents corrosion and scaling, ensuring product consistency and operational safety



Pharmaceutical

Ensures water used in drug production meets stringent purity standards for PW, WFI, water for sterile applications



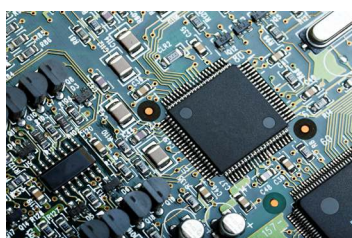
Food and Beverages

Ensures the quality of water used in production meets mandatory safety and quality standards



Chemical

Ensuring right product quality and operational safety



Solar & Semiconductor

Enables precise monitoring of ultra-pure water critical to wafer production and clean utility systems



Drinking Water

Monitors and controls water quality in treatment plants and distribution networks, ensuring full compliance with drinking water standards

Specifications

Display	128 x 64 dot matrix liquid crystal display Programmable for display of measured value, temperature, units and error messages
Keypad	Tactical 4 keys for menu, Up/down, Enter, Esc
Input	Analog sensor ; pH, ORP, Conductivity, Resistivity, TDS, DO
Output	4-20 mA galvanically isolated output (Optional-HART)
Power	Maximum load resistance of 600 Ω at 24 V DC
Temperature	-20 to 200 Deg C (Pt100, Pt1000) (NTC option for DO measurement)
Parameters	pH, ORP, Conductivity, TDS, DO and Resistivity
Housing	MOC polycarbonate, 10% glass filled Colour RAL 9007
Mounting	Panel, Wall/ 2" Pipe type and plate mounting
Dimensions	H 144mm X W 144mm X D 85mm
Cable Gland	M20 X 3 nos (Power supply, sensor and temperature)
Weight	1 Kg
Environmental	Storage : -20 to 70 Deg C
Operating temp.	-20 to 70 Deg. C (non- Ex), -20 to 55 Deg. C (Ex)
Approvals	EMC : EN 61326-1, EMI : EN 61326-1, Vibration : IEC 60068-2-6 Instinsic Safety : Ex ia Group IIA IIB IIC T6 Zone 1&2, Ingress Protection IP 66

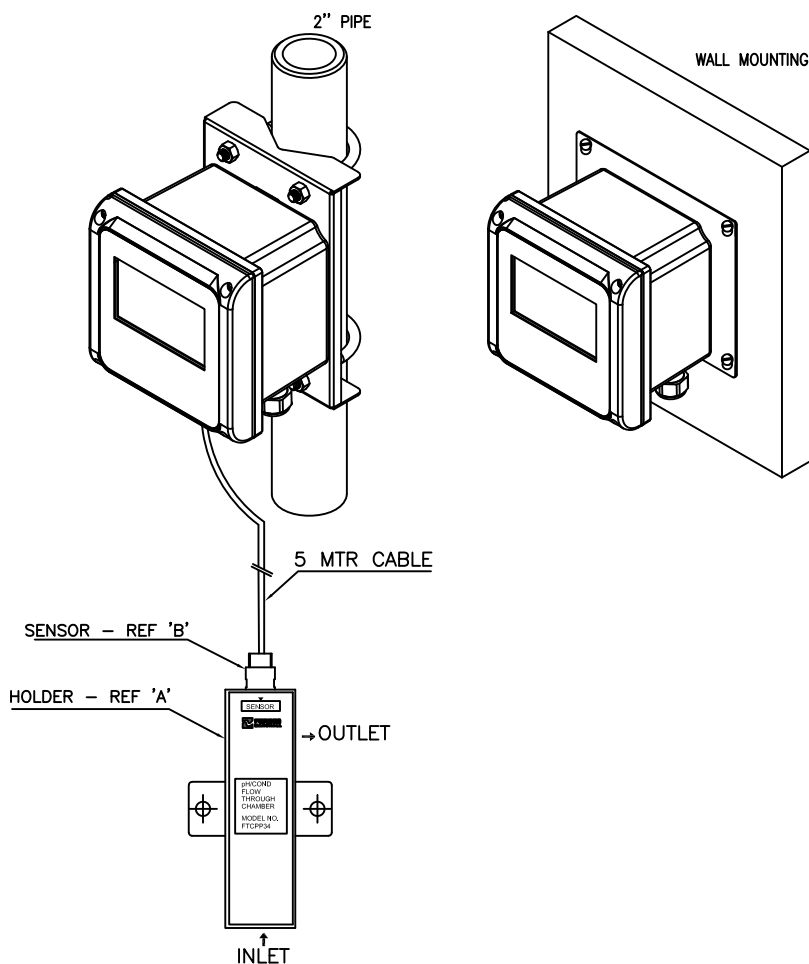
Parameters

	Range	Unit	Resolution	Accuracy	Calibration	Span
pH	0 - 14	pH	0.01	± 0.01 pH	Single/Dual/ Three	Min - 2pH Max - 14 pH
Temperature	-20 to 200	$^{\circ}$ C	0.01 $^{\circ}$ C	± 0.5 % of FS	Single/Dual	Min - 5% of Range Max - 100% of Range
ORP	-2000 to +2000	mV	1	± 1 mV	Single/Dual	Min - 200mV Max - 4000mV
Conductivity	K = 0.01 : 0 to 100 K = 0.1 : 0 to 1000 K = 1 : 0 to 10000 K = 10 : 0 to 100000	μ S/cm; mS/cm	K = 0.01 : 0.1 μ S/cm K = 0.1 : 0.1 μ S/cm K = 1 : 0.01mS/cm K = 10 : 0.01mS/cm	± 0.5 % of FS	Single/Dual	Min - 5% of Range Max - 100% of Range
TDS	K = 0.01 : 0 to 70 K = 0.1 : 0 to 700 K = 1 : 0 to 7000 K = 10 : 0 to 70000	ppm, ppt, g/L, mg/L	K = 0.01 : 0.01ppm K = 0.1 : 0.1ppm K = 1 : 0.01ppt K = 10 : 0.1ppt	± 0.5 % of FS	Single/Dual	Min - 5% of Range Max - 100% of Range
Resistivity	K = 0.01 : 100M Ω .cm to 10K Ω .cm K = 0.1 : 10M Ω .cm to 1K Ω .cm K = 1 : 1M Ω .cm to 0.1K Ω .cm K = 10 : 0.1M Ω .cm to 0.01K Ω .cm	M Ω .cm; K Ω .cm	K = 0.01 : 0.01M Ω .cm K = 0.1 : 0.1M Ω .cm K = 1 : 0.01K Ω .cm K = 10 : 0.01K Ω .cm	± 0.5 % of FS	Single/Dual	Min - 5% of Range Max - 100% of Range
DO	0 - 500 % 50 - 9999 ppb 0.05 to 20 ppm 0.05 to 40 ppm	%; ppm; ppb; mg/L	0 - 500 % : 0.1 50 - 9999 ppb : 1 0.05 to 20 ppm : 0.01 0.05 to 40 ppm : 0.1	± 0.5 % of FS	Single/Dual	Min - 5% of Range Max - 100% of Range

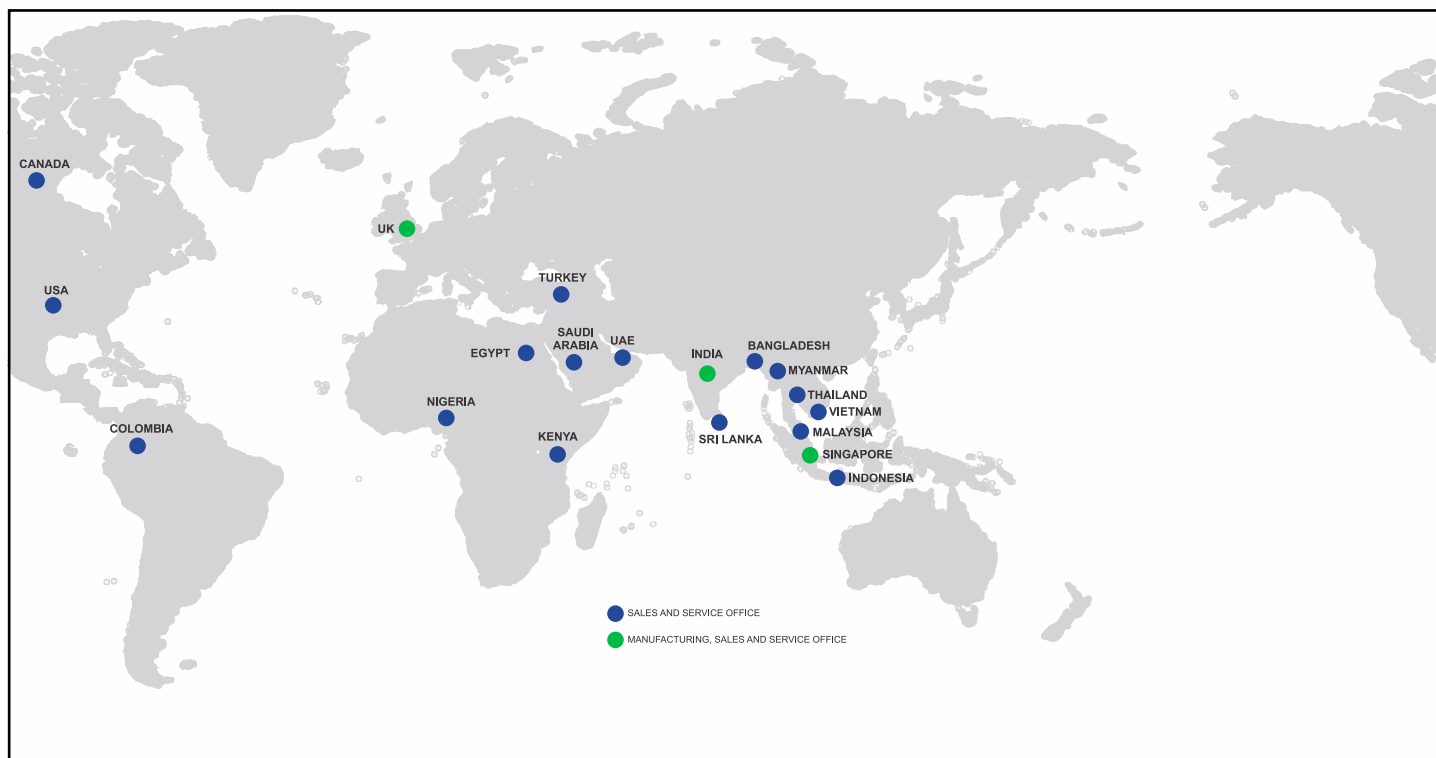
Ordering Information							
A2T	Aqua2Trans						
	Mounting						
	P	Panel Mounting					
	W	Wall / 2" Pipe Mounting / Common Field					
		Communication Protocol					
		0	Nil				
		1	HART				
			Parameters				
			01	pH			
			02	ORP/Redox			
			03	Conductivity			
			04	TDS			
			05	Resistivity			
			06	DO (Dissolved Oxygen)			
			Area Classification				
				0	Safe Area		
				1	Ex ia		
		Configuration					
			00	Default			
A2T	-	-	-	-	-	-	

Consult factory*

COND / TDS / RESISTIVITY Measurement System



Energising Businesses and Communities Worldwide



World Class Technology from World Class Facilities



Enabling Results



Process Efficiency



Energy Efficiency



Optimum Productivity



Improved Asset Uptime



Safety and Regulatory Compliance



Environmental Responsibility



Forbes Marshall Arca
Codel International
Krohne Marshall
Forbes Vyncke
Forbes Marshall Steam
Systems

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