Supmea

The HVAC & BA Solution for Data Center

Committed to
Process Automation Solutions



20 years
Industry Experience

160+
Countries & Regions

700+
Employees

800k+
Customers Worldwide

About Supmea

Supmea is a global manufacturer of process instrumentation, delivering complete measurement solutions for flow, level, pressure, temperature, and liquid quality monitoring. With expertise in industrial automation and liquid cooling applications, Supmea supports data centers and critical infrastructure projects worldwide.

Trusted by customers in 160+ countries and regions, Supmea combines advanced engineering, large-scale manufacturing, and flexible customization capabilities. Certified by UL, NSF, ISO, CE, ATEX, and IECEx, with an ISO/IEC 17025 accredited calibration laboratory, Supmea ensures reliable and accurate measurement performance.



Industry-leading Flowmeter Calibration System



Two World-class SMT Production Lines



1500m² ISO/IEC 17025 Accredited Laboratory



Automated Warehouse & AGV Intelligent Handling System

How We Support Your Projects

- **Complete Instrumentation Solutions for Liquid Cooling**
  Comprehensive instrumentation for flow, pressure, temperature, and coolant quality monitoring throughout liquid cooling systems.

- **Flexible Project Support**
  Customized instrumentation solutions and engineering support across liquid cooling processes:
  Supply | Circulation | Heat Exchange | Return Monitoring Data Centers & Power Electronics | Battery Thermal Management | Industrial Equipment Cooling

- **Better Value & Fast Delivery**
  Competitive total cost of ownership and efficient delivery to support project timelines.

- **Reliable Local Service & Technical Support**
  Local service support backed by global engineering expertise.

- **Warranty & Training Support**
  Up to 3-year limited warranty on eligible instruments, plus online and onsite technical training.

Global Certifications

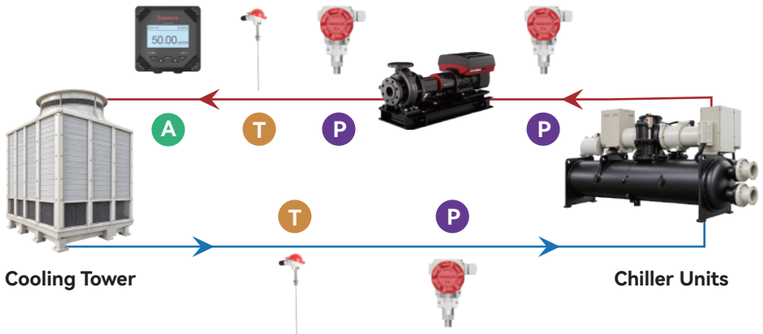
ISO 9001 | ISO 45001 | ISO 14001 | ISO 17025 | CE | RoHS COMPLIANT | IECEx | Ex | UL | NSF

Supmea solution for Air Cooling Systems

Heat Transfer Cooling Tower ← **Refrigeration** Chiller Units ← **Heat Exchange** Precision Air Conditioning/Air Wall ↔ **Heat transfer** hot and cold aisles ← **Heat dissipation** Server/Chipset

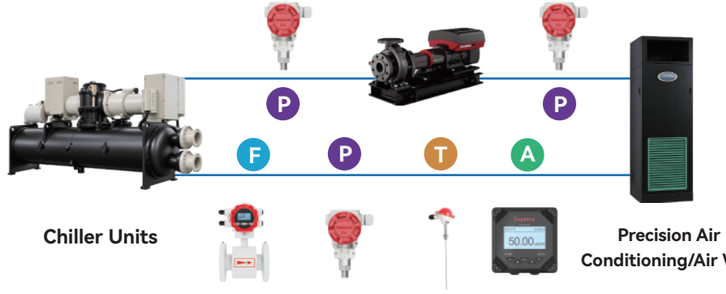
1 Cooling water circulation piping

Transfers heat from the chiller to the atmosphere.



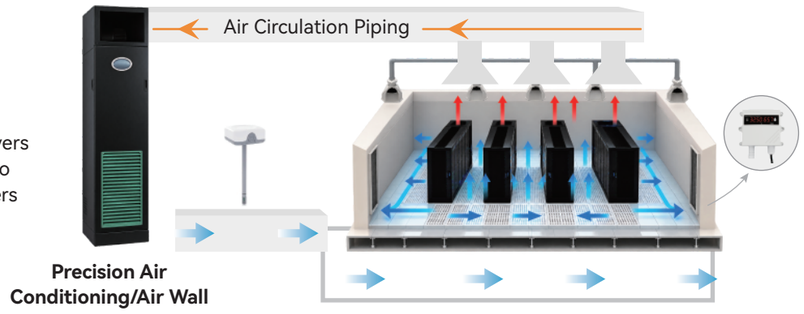
2 Chilled water circulation piping

Produces chilled water and delivers it to end-user equipment.



3 Server Room Ventilation System

Heat generated by servers or chips is transferred to precision air conditioners or air walls.



F Flow Meters · A Liquid Analysis · L Level Meters · P Pressure Meters · T Temperature Meters

Air-water heat exchange

Water as medium

Carbon steel used as pipe material

Some pipes are located outdoors

High demands for temperature and humidity

The computer room needs to maintain positive pressure

Product Recommendations (Water System)

Flow Meters(F)



BTU Meters(F+T)



Temperature Meters(T)



Pressure Meters(P)



Water Analyzer(A)



Level Meters(L)



Product Recommendations (Air System)



Outdoor T&H Transmitter



Indoor T&H Transmitter



Duct Temp. Transmitter

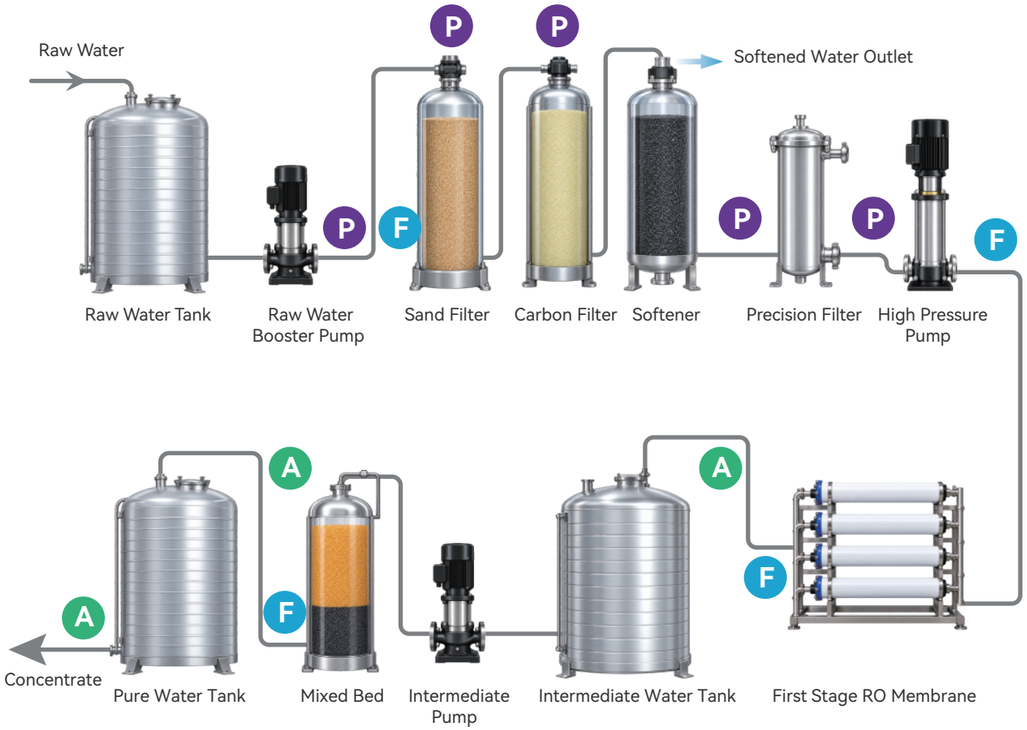


Micro Differential Pressure Transmitter

Supmea solution for Water Preparation Systems

Softened water is used for makeup water in air conditioning systems and as a pretreatment water source for pure water systems.

System monitoring mainly includes flow rate, temperature, pressure, pH, and conductivity.





F Flow Meters



P Pressure Meters



A Water Quality Analyzer

Reliable Water Quality

Continuous monitoring ensures stable and safe water quality.

Efficient Operation

Real-time data enables process optimization and energy saving.

Equipment Protection

Prevents scaling, corrosion and contamination to extend equipment service life.

System Stability

Ensures stable operation of HVAC and critical infrastructure.

Monitoring Categories for Data Center HVAC Systems

Complete Monitoring Coverage | Reliable Operation | Efficient Cooling

Cooling Efficiency Monitoring

Applications
- Cooling Tower
- Chiller System
- Chilled Water Loop

Key Benefits
- Accurate flow measurement
- Energy consumption monitoring
- Cooling efficiency optimization



A100 Electromagnetic Flowmeters



FBC240 BTU Meters

Thermal Environment Monitoring

Applications
- Server Room
- Precision AC
- Air Wall

Key Benefits
- Real-time thermal monitoring
- Maintain stable conditions
- Ensure reliable operation of IT equipment



TH800B Outdoor T&H Transmitter



TH800R Indoor T&H Transmitter

System Reliability Protection

Applications
- Water Loop
- Air Distribution System

Key Benefits
- Leakage prevention
- Pressure balance control
- System stability assurance
- Abnormal Temperature Monitoring



PX400 Pressure Transmitter



PX202 Digital Temperature Transmitter

Water Quality Management

Applications
- Cooling Tower
- Water Preparation System

Key Benefits
- Prevent scaling & corrosion
- Improve water system reliability
- Extend equipment lifetime



pH6.5 pH/ORP Controller ASP2330 pH Electrode



ADP2400 Digital pH Electrode

Meters for Water Circulation Systems in HVAC

Accurate Measurement | Reliable Operation | Efficient Cooling

Flow Measurement

Technical Specifications	 A100 Electromagnetic Flowmeters	 FBC240 BTU Meters	 FLC420 Turbine Flowmeters
Key Advantages	- Separate sensor & transmitter, easy maintenance -Suitable for deionized water and glycol coolant	- Integrated cooling capacity calculation - Direct output for PUE energy monitoring	- Compatible with immersion fluorinated coolant - Fast response for secondary loop monitoring
Application	Cooling water Chilled water Primary circulation piping	Chilled water Primary circulation piping	Immersion liquid-cooled secondary circulation piping
Diameter Range	DN10-DN1000	DN10-DN1000	DN10-DN200
Accuracy	0.3%/0.5%	Class 2.0	0.5/1.0 class
Protection Rating	IP65	IP65	IP65

Meters for Water Circulation Systems in HVAC

Accurate Measurement | Reliable Operation | Efficient Cooling

Flow Measurement

Technical Specifications	 FVX260 Vortex Flowmeters	 LDGC-SUP-L Insertion Electromagnetic Flowmeters
Key Advantages	- No moving parts, maintenance-free - Optional IP68 high water-proof grade	- Hot pluggable, no shutdown for maintenance - Low-cost solution for large diameter main pipes
Application	Immersion liquid-cooled secondary circulation piping	Chilled water Primary circulation piping
Diameter Range	DN15-DN200	DN100-DN2000
Accuracy	Class 1.0/1.5	Class 2.0
Protection Rating	IP65 (IP67, IP68)	IP65

Meters for Water Circulation Systems in HVAC

Accurate Measurement | Reliable Operation | Efficient Cooling

Temperature Measurement

Technical Specifications	 **P202/PX202** Digital temperature transmitter	 **WZPK** Armored resistance temperature detector	 **TST350** Bimetallic thermometer
Key Advantages	- Dual 4~20mA & RS485 signal output - Compact for dense pipeline layout	- Passive mechanical design, no power supply - Local on-site redundant reading	- Class A high precision, guarantees BTU metering - Vibration resistant for pump surroundings
Application	Cooling water piping Chilled water piping Primary and secondary circulation piping	Cold water inlet/outlet	Cooling water piping Chilled water piping Primary circulation piping
Measuring Range	-200~600℃	0~100℃	-200~600℃
Accuracy	Class 0.5	Class 1.5	Class A
Protection Rating	IP65	/	IP65

Meters for Water Circulation Systems in HVAC

Accurate Measurement | Reliable Operation | Efficient Cooling

Level Measurement

Technical Specifications	 **P260G/P260** Input Type Level Meter	 **WSR202** Radar Level Meter	 **WSU200** Ultrasonic Level Meter
Key Advantages	- IP68 fully submersible probe - Simple installation for buffer tanks	- Non-contact measure-ment, no medium pollution - Maintenance-free for fluorinated liquid tanks	- Optional wireless transmission - Cost-effective non-contact solution
Application	Various water tanks	Various water tanks	Various water tanks
Measuring Range	0~1m…200m H2O	5m	0~5m/0~10m/0~15m
Accuracy	0.5%FS	±5mm	±0.3%FS/±0.5%FS
Protection Rating	IP68	IP68	IP65, Probe: IP68

Meters for Water Circulation Systems in HVAC

Accurate Measurement | Reliable Operation | Efficient Cooling

Pressure Measurement

Technical Specifications	 **P400/PX400 Pressure Transmitter**	 **2051 Single-Crystal Silicon Differential Pressure Transmitter**	 **P300/PX300 Pressure Transmitter**
Key Advantages	- Anti-water hammer sensor - Optional local display	-Ultra-high precision for filter clog early warning - Strong anti-overload & anti-water hammer capability	- IP68 full waterproof, anti-condensation - Multiple accuracy options
Application	Cooling water piping Chilled water piping Primary circulation piping	Water pumps Filters	Cooling water piping Chilled water piping Primary circulation piping
Pressure Range	0~1 MPa	100kPa…0~0.1kPa…3MPa	0~1 MPa
Accuracy	Class 0.2	0.075%FS; 0.1%FS	0.2 / 0.25 / 0.5 class
Protection Rating	IP65	IP67	IP68

Meters for Water Circulation Systems in HVAC

Accurate Measurement | Reliable Operation | Efficient Cooling

Pressure Measurement

Technical Specifications	 **Y110 Stainless Steel Pressure Gauge**	 **PC100 Digital Pressure Gauge**
Key Advantages	- Full stainless steel corrosion resistance - Passive standby monitoring without power	- Multi-unit switching for global projects - Intuitive local digital display
Application	Cold water inlet/outlet Water pumps Filters	Water source inlet/outlet Water pump Filters
Pressure Range	0~1.6 MPa	-0.1…0~60MPa
Accuracy	1.6	0.25 class, 0.5 class
Protection Rating	/	IP54

Meters for Water Circulation Systems in HVAC

Accurate Measurement | Reliable Operation | Efficient Cooling

Water Quality Measurement

Technical Specifications			
	TDS210B Conductivity Meter & 7001G Conductivity Sensor	**ADE3300 Digital Conductivity Sensor**	**PH6.5 pH Controller ASP2330 pH Electrode**
Key Advantages	- Complete controller & sensor set, plug and play - Monitor water quality to prevent pipeline corrosion	- Direct digital output, no extra controller - Save cabinet installation space	- Integrated measurement kit, easy maintenance - Continuous monitoring to avoid medium corrosion
Application	Liquid cooling primary Secondary side circulation piping	Liquid cooling primary Secondary side circula-tion piping	Liquid cooling primary Secondary side circulation piping
Measuring Range	0~2000 μS/cm	0~10000 μS/cm	0~14 pH
Accuracy	±2%F.S	±2%F.S	0.1 pH
Protection Rating	IP65	IP68	IP65

Meters for Water Circulation Systems in HVAC

Accurate Measurement | Reliable Operation | Efficient Cooling

Water Quality Measurement

Technical Specifications		
	ADP2400 Digital pH Electrode	**PH8001 Digital pH Electrode**
Key Advantages	- High-precision digital direct output - Simplify distributed monitoring system	- Compact design and easy installation. - Isolated power supply design ensures stable data transmission and strong anti-interference capability.
Application	Liquid cooling primary secondary side circulation piping	Aquaculture
Measuring Range	0~14 pH	pH: 0.00–14.00 pH Temperature (optional): 0–60 ℃
Accuracy	0.02 pH	pH: 0.02 pH Temperature: 0.5 ℃
Protection Rating	IP65	/

Products for Air Conditioning & Ventilation Systems

Accurate Measurement | Reliable Operation | Efficient Cooling

Temperature & Humidity Monitoring

Technical Specifications	 **TH800B Outdoor T&H Transmitter**	 **TH800R Indoor T&H Transmitter**	 **TH800 Indoor T&H Transmitter**
Key Advantages	- Outdoor waterproof housing for open-air installation - Integrated probe design for simple wiring, ideal for exterior wall & outdoor cabinet monitoring	- Ultra-thin wall-mounted appearance for neat indoor decoration - Standard wall installation, suitable for computer rooms, offices and clean spaces	- Detachable split probe enables separated installation of sensor and main unit - Higher measurement accuracy, built-in digital local display; IP64 protection for humid indoor conditions
Application	Outdoor Environment	Indoor Environment	Indoor Environment
Range	Temperature: (-20~80)℃ Humidity: (0~100)% RH	Temperature: (-20~80) ℃ Humidity: (0~100)% RH	Temperature: (-40~80)℃ Humidity: (0~100)%RH
Accuracy	Temperature: ±0.5℃ (typical @25℃) Humidity: ±3%RH (typical @25℃)	Temperature: ±0.5℃ (typical @25℃) Humidity: ±3%RH (@60%RH, 25℃)	Temperature: ±0.3℃ (0 ~ 80)℃ Humidity: ±3%RH (10 ~ 90)%RH
Protection Rating	/	/	IP64

Supmea Combined Product Solutions

Product Solutions for Air Cooling HVAC Systems

Water System

Flow Meters



A100



A100

BTU Meters



FBC240



FBC240

Temperature



WZPK



TST350



P202/PX202

Pressure



P400 2051 Y110



P300/PX300 PC100

Water Quality



ADE3300



T210B 7001G

Level Meters



WSU200



P260



WSR202

Supmea Combined Product Solutions

Product Solutions for Air Cooling HVAC Systems

Ventilation System

Environmental T&H

Flow Meters



TH800B



FKTH800R



TH800

Differential Pressure

BTU Meters



FK-PDF200



PD050

Duct Temperature & Humidity

Pressure



FK-TH600G



T800G

Complete Product Range

One-stop Sourcing

High Accuracy & Stability

Reliable Performance

Flexible Combinations

Easy System Integration

Quality Assurance

Global Support

Supmea Combined Product Solutions

Product Solutions for Water Preparation Systems



A100



P202



TST350



P300



Y110



TDS210B & 7001G



pH6.5 & ASP2330



P260

One-stop Sensing Solutions for Efficient & Reliable System Operation

Monitoring → **Control** → **Analysis** → **Protection** → **Optimization**



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