



AVAILABLE MODELS

TS201-D

Digital probe – temperature only, 316SS food-grade

TS201-TH

Combined probe – temperature + humidity, 304SS food-grade

KEY FEATURES

- Detachable probe – swap or recalibrate in seconds without removing the transmitter
- IP67 housing with sealed battery compartment – wash-down and condensing environments
- EN12830 cold-chain certified – drop-in for regulated pharmacy, lab, food-safety
- NFC mobile-app configuration and 4000-entry on-device data buffer with retransmission
- Up to 10-year battery life on a single replaceable AA-size cell (SF7, US915, 10-min uplink)

Long Battery Life

TS201 runs **up to 10 years** on one 2700 mAh AA-size Li-SOCl₂ cell (SF7, US915, 10-min uplink) – fewer truck rolls in hard-to-reach cold-chain locations.

CERTIFICATIONS

CE

FCC

EN12830

RoHS

MODEL COMPARISON

Parameter	TS201-D	TS201-TH
Temperature sensing	✓	✓
Humidity sensing	–	✓
Temperature accuracy (typ.)	±0.5 °C	±0.2 °C
Probe material	316SS food-grade	304SS food-grade
Cable length	1.5 m	1.5 m
Long-term drift	typ. < 0.2 °C	typ. < 0.03 °C/yr

TECHNICAL SPECIFICATIONS

Parameter	Specification
WIRELESS TRANSMISSION	
Technology	LoRaWAN® 1.0.x · Class A (OTAA / ABP)
Frequency Bands	EU868, US915, AU915
Tx Power	16 dBm (EU868) / 22 dBm (US915, AU915)
Sensitivity	-137 dBm @ 300 bps
Configuration	NFC + mobile app, or LoRaWAN downlink
SENSORS & PROBES	
Connector	5-pin M12 A-coded male
Probe (TS201-D)	Digital, 50 mm, 316SS food-grade – -40 to +125 °C, 0.1 °C res.
Probe (TS201-TH)	Combined T/RH, 50 mm, 304SS food-grade – ±0.2 °C / ±2 % RH
Humidity range	0–100 % RH (TH variant) – 0.5 % res., < 0.2 % RH/yr drift
PHYSICAL	
Operating temp	-30 °C to +55 °C – 0–95 % RH non-condensing
IP rating	IP67 – sealed battery compartment
Dimensions	58 × 65 × 25 mm – 70 g (transmitter)
Power	1 × 2700 mAh AA-size Li-SOCl ₂ (3.6 V), replaceable
Expected autonomy	~10 yr (SF7, US915) · ~9 yr (SF7, EU868) · ~8.2 yr

LORAWAN FREQUENCY BANDS

Region	Band
Europe	EU868
North America	US915
South America	AU915

ORDERING INFORMATION

ATEK Part Number	Description
TS201 — SINGLE PROBE	
MS-TS201-DIGITAL	TS201 + digital temperature probe (-40 to +125 °C, 0.1 °C res.)
MS-TS201-TH	TS201 + temperature & humidity probe (±0.2 °C, ±2 % RH)
MS-TS201-MAGKIT	Optional magnetic mount kit (for existing units)
MS-TS201-CAL-A2LA	ISO/IEC 17025 calibration certificate (A2LA-accredited)

Frequency band specified at order. Calibration certificate available as add-on or bundled at order.

ATEK PLATFORM INTEGRATION

- Zero-touch provisioning — DevEUI pre-linked to your account; sensor joins a LoRaWAN gateway and appears in the dashboard automatically
- Real-time temperature & humidity readings, trends, and alarms within seconds of uplink
- Calibration tracking — certificate storage, expiry alerts, and audit trail tied to each sensor serial number
- Historical reports — CSV / PDF / Excel exports with hourly, daily, monthly aggregations
- Multi-channel alerts — email, SMS, voice call, webhook
- Immutable time-series storage with tamper-evident audit logs
- GxP / 21 CFR Part 11 aligned — user-level audit trails, e-signature, ALCOA+ data integrity
- NFC configuration via mobile — pair and provision on-site without a laptop