Aclara RF Network

3500 Series Gas Meter Transmission Unit (MTU)



Aclara offers Series 3500 MTUs to fit any utility requirement for residential or commercial meters, as well as volume correctors and pulse-input devices. MTUs are available as remote or direct-mounted. In addition to standard-range MTUs, Aclara provides an extended-range version for special situations for transmitting radio frequencies.

ACCURATE AND TIMELY METER DATA TO SUPPORT A MYRIAD OF OPERATIONAL FUNCTIONS.

Hourly, time-stamped reads from Aclara's Series 3500 MTUs effectively eliminate estimated billing and errors, improve revenue management and reduce customer service calls. What's more, Series 3000 MTUs signal the utility if tampering is suspected and will notify of reverse flow conditions or unauthorized configuration changes.

FEATURES AND BENEFITS

- Meter readings are recorded every 60 minutes and are transmitted to the utility four times per day.
- Utilities can program shorter intervals over the air.
- Each of four daily uploads include the 12 most recent stored readings, ensuring no missed reads.
- Devices transmit up to eight digits of meterreading data and offer a resolution of one pulse per revolution of the proving dial.

RESIDENTIAL METERS

Aclara supports all major residential gas meters with specifically designed MTUs, offering utilities the flexibility to choose a solution that works best for them and minimizing installation times. MTUs may come pre-installed on new meters by the meter manufacturer or can be quickly and easily installed on existing meters in the field.

COMMERCIAL METERS AND VOLUME CORRECTORS

Aclara designs its MTUs to tightly integrate with commercial devices and take advantages of their unique capabilities. Aclara MTUs provide both corrected and uncorrected readings and are compatible with all major commercial meters as well as volume correctors and pulse input devices. Gas utilities can use hourly, time-stamped data from Series 3000 MTUs to facilitate revenue assurance and advanced distribution management.

MTU SPECIFICATIONS			
	Residential	Commercial	Pulse Input Device/Volume Corrector
Range	Standard, Extended	Standard, Extended	Extended
Installation (Mount)	Direct, Remote	Direct	Remote
Inputs	Mechanical Interface	Single Port	Single or Dual Port
Tamper Detection	Magnetic, reverse flow, tilt, index cover, configuration change and cut wire[1]	Magnetic, reverse flow, tilt, index cover, configuration change	Configuration change, cut wire
Data Resolution	4–8 digits[2]	4–8 digits[2]	4–8 digits[2]
Output Compatibility	N/A	N/A	Open collector, open drain, reed switch

Notes
1. Cut wire only for remote mounted
2. Reports all digits electronically available from register



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BENEFITS OF A TWO-WAY FIXED NETWORK

Series 3500 MTUs operate on the high-performance Aclara RF Network system, transmitting hourly interval data over individually FCC licensed 450 to 470 MHz radio frequencies without outside disruptive interference. The high-performance MTU is FM certified, intrinsically safe device designed to be an exact match for a gas utility's existing meter population.

The high-performance Aclara two-way network allows gas utilities to remotely update MTU firmware. In addition, a signal from the utility can set off a synchronized read of all system MTUs, collecting the data needed to reconcile the amount of gas entering the system to the billable gas that is consumed.

BATTERY LIFE

MTU lithium-ion batteries in Aclara gas MTUs are guaranteed for 20 years under standard operating conditions. Extended range and specially configured MTUs may have shorter battery lives, depending on the configuration.

GENERAL SPECIFICATIONS	
Network type	Two-way
Transmit frequency	450-470 MHz (FCC licensed)
Antenna	Internal
Read interval	Hourly (default) and On-Demand
Transmit interval	Four times per day (default)
Battery life	20 years[1,2]
End point to end point time difference	< 1 min
Operating temp range	-40°C to +60°C
Operating humidity	5% - 95% Non-condensing
Tamper detections	Magnetic, reverse flow, tilt, index cover, and configuration change
Security	Data encryption AES 256
Approvals	FCC part 90, Intrinsically Safe (Class 1, Div. 2, Group D) per Factory Mutual (FM)
Warranty	20 years[3]
Network topology	Aclara RF Network
Network compatibility	Aclara DCU 2+

Notes:
1. Battery life is stated at default settings
2. Standard range
3. Refer to Aclara standard warranty for details specifications are subject to change without notice

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