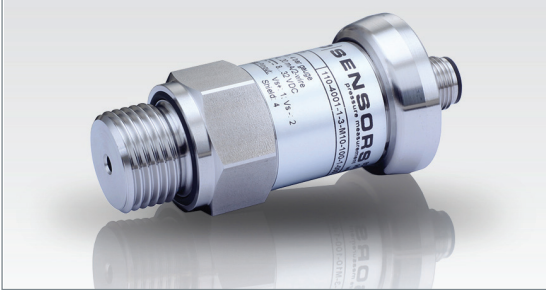


Aclara RF Network

Water Pressure Monitoring Solution



Aclara's water pressure monitoring solution leverages our industry-leading Aclara RF network to provide near real-time monitoring of water pressure throughout your distribution network. Whether used for leak detection or managing system-wide pressure, Aclara's pressure monitoring solution is easy to install, reliable, low-maintenance and integrated into your advanced metering infrastructure (AMI) environment.

OVERVIEW

Aclara's pressure monitoring solution will effortlessly and remotely monitor and collect pressure data throughout your distribution network. Near real-time data will improve network performance, identify maintenance needs, and discover leaks and other network issues quickly and cost effectively. Pressure transducers combine with sensor transmission units (STUs) for a complete solution guaranteed to provide detailed and actionable data.

Overlay weather, water consumption, and other relevant data to get a deeper picture of the operational condition of your distribution network. Accurate and timely data can help lower your overall system pressure for example – without violating minimum pressure thresholds. This will decrease the energy required to pump water, minimize leaks, and reduce wear and tear on your distribution infrastructure.

FEATURES AND BENEFITS

- Pressure ranges, accuracy, and pipe fittings can be configured to the operator's needs for maximum flexibility of installation and operational conditions
- Four user-configurable alert level thresholds give maximum flexibility of operation, with each threshold configurable both to send an immediate alert to the head-end and/or trigger the STU to enter an "event mode" operation state
- Event mode allows the STU to operate at different settings (like reading/transmitting more often) to give a more precise and timely view into out-of-the-ordinary operating conditions
- Targeted software modules at the head-end (GIS map of the location and state of each monitor, summary charts showing pressure vs. time) make analyzing and determining network performance a snap
- Alerts generated by exceeding thresholds can trigger email or SMS text notifications to designated recipients for immediate notification and response



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SENSOR SPECIFICATIONS

Pressure range	0-125psi, other ranges available (can be configured for kPA)
Fitting	¼" male NPT fitting ¹
Cable	5-meter cable, vented to the atmosphere for automatic barometric compensation
Materials	Stainless steel construction
Water ingress	IP68 rated
Sensor accuracy	Accurate to $\pm 0.35\%$ FSO
Operating temperature range	-25°C to +85°C

SENSOR TRANSMISSION UNIT (STU) SPECIFICATIONS

Network type	Two-way, uses Aclara RF network ²
Transmit/receive frequency	450 to 470 MHz (FCC-licensed)
Antenna	Internal to the STU, or external/remote
Installation locations	Interior wall, exterior wall, pit/vault, through-the-lid antenna
Size	9 ¾" high x 8 ¼" wide x 4 ⅛" deep
Scheduled read interval	Configurable: 5 minutes to hourly
Scheduled transmit interval	Configurable: default is four times per day ³
Operating temperature range	-40°C to +70°C
Operating humidity	0% to 100% non-condensing
Water ingress	IP67 rated
Approvals	FCC part 90; Industry Canada RSS-119
Alert thresholds	Four user-configurable: high-high, high, low, low-low
Power	External 12V source or a field-replaceable battery pack

SOFTWARE MODULE SPECIFICATIONS

Environment	Integrates into Aclara head-end
Visualization	GIS mapping function for location visualization and instant system status check ⁴
Bundled reports	Pressure vs. time per endpoint, overlay other data sets (barometric, water consumption, etc.)
Communications	Alerts can trigger SMS or email "push" alerts to designated recipients

1. Other fittings may be available. Contact factory
2. Requires DCU II with T-board
3. Transmit intervals from five minutes to daily (may include all intervening readings or only latest reading)
4. Requires GPS coordinates of sensor installations and Google Maps access